

BEHAVIOR-BASED SAFETY

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BEHAVIOR-BASED SAFETY

Agenda

- 8:30 **Section I**
Motivating Safe Behavior
- Section II**
Benefits of Behavioral Approaches
- Section III**
Behavior-Based Models
- Section IV**
Are You Ready? Success Factors
- 11:30 **Lunch**
- 12:30 **Section V**
Safety Observation Process
- Section VI**
Behaviors to Observe For
- Section VII**
Coaching and Feedback
- 4:30 **Dismiss**

There will be one morning break and one afternoon break.

Objectives

- The benefits of behavior-based systems;
- The basic principles of how to motivate safe behavior;
- A company's readiness for behavior-based safety;
- Compare and contrast the different behavior-based systems on the market today

Behavior-Based Safety Systems

Follow-up Activities

- Offer training in the Observation method to modify behavior
- Ask top management to complete the safety culture wheel; follow up with a discussion of the safety culture in our workplace.
- Create or modify a safety team / committee at my workplace that assures employee involvement. (i.e., training, self auditing, accident investigation).

Activity Plan

	Activity	Other people involved	Target Deadline
☐			
☐			
☐			
☐			
☐			
☐			
☐			
☐			

Resources Available from the Division of Safety & Hygiene (DSH) Libraries

(800) 644-6292 (614) 466-7388

library@bwc.state.oh.us

www.ohiobwc.com

Safety training:

- Safety talks, outlines and scripts - DSH Safety leader's discussion guide, Training Center's One-hour safety presentations, reference books, web resources
- Videos – hundreds of safety and health topics
- Books and articles on training techniques

Machine and equipment safety:

- Safety standards (ANSI, NFPA, CGA)
- Books and articles on power presses, material handling equipment, lockout/tagout, etc.

Sample written programs:

- DSH program profiles and sample written programs
- Reference books
- Internet resources

Illness and injury statistics:

- Statistics from the U.S. Bureau of Labor Statistics
- National Safety Council's *Injury Facts*
- National Institute of Occupational Safety & Health (NIOSH) studies

Hazard communication and chemical safety:

- Chemical safety information
- Material safety data sheets (MSDSs)
- Sample written programs
- Videos
- Internet resources

Safety standards

- American National Standards Institute (ANSI) standards (including standards for construction, machinery and equipment, personal protective equipment)
- National Fire Protection Association (NFPA) fire codes (including the Life Safety Code and the National Electrical Code)
- Compressed Gas Association (CGA) standards

Other topics of interest (books, articles, magazines, videos and standards):

- Confined spaces
- Electrical safety
- Job safety analysis
- New employee orientation
- Powered industrial trucks
- Respiratory protection
- Scaffolds
- Spill response

Directories and lists of vendors of safety equipment

Occupational Safety & Health Administration (OSHA) regulations

Manual of Uniform Traffic Control Devices (MUTCD)

Recommendations of useful Internet sites

BWC publications

Saving You Time and Research

Requests for copies of OSHA standards, information on starting a safety committee, a video on accident investigation techniques -- these are some of the thousands of inquiries BWC's Division of Safety & Hygiene (DSH) libraries receive each year.

DSH has two libraries to serve you:

- The central library in the William Green Building in downtown Columbus;
- The resource center and video library located at the Ohio Center for Occupational Safety and Health (OCOSH) in Pickerington.

Both libraries are open 8 a.m. to 4:45 p.m., Monday through Friday. Your need for information does not require a visit to the library. You can phone, fax, or e-mail your requests and receive a quick response.

The central library provides free information services on the topics of occupational safety and health, workers' compensation and rehabilitation.

The OCOSH resource center provides similar services for those who visit OCOSH for meetings and training center classes.

The video library offers an extensive collection of videotapes to supplement your organization's safety and health training program. It is a convenient and popular source for Ohio employers to borrow quality occupational safety- and health-related training aids.

Visit our Web site at **www.ohiobwc.com**.

Central library
30 W. Spring St., Third Floor
Columbus OH 43215-2256
1-800-OHIOBWC
(614) 466-7388
(614) 644-9634 (fax)
library@bwc.state.oh.us

OCOSH resource center
13430 Yarmouth Drive
Pickerington OH 43147
1-800-OHIOBWC
Resource center (614) 728-6464
Video library (614) 644-0018

Background

Traditional-compliance based safety approaches fail to deliver great performance. Research indicates that accident prevention efforts will be most fruitful in a safety culture where everyone values, takes responsibility for and is accountable for safe performance. So how does one go about creating a such a culture? Behavior-based safety is a systematic approach to motivate safe behavior that influences organizational systems, behaviors and culture.



Turn & Talk

**What kinds of injuries and accidents are common at your workplace?
Make a list.**

-
-
-
-
-
-

What percentage of these accidents are a result of

_____ % unsafe actions, at-risk behaviors, poor decisions

vs.

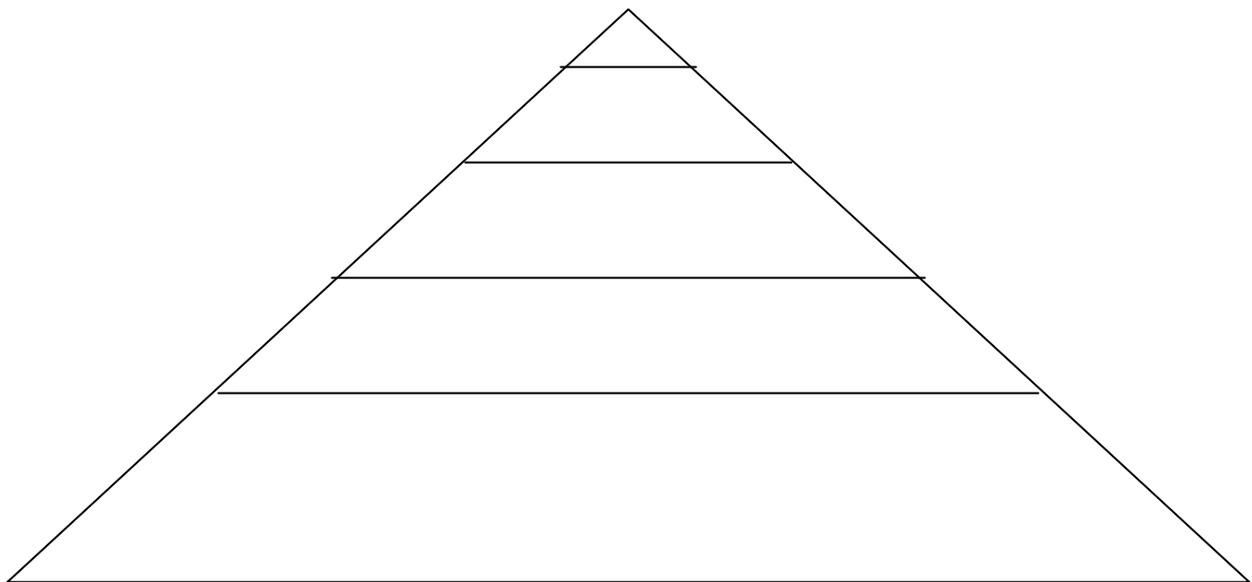
_____ % unsafe conditions, OSHA violations, dangerous equipment?

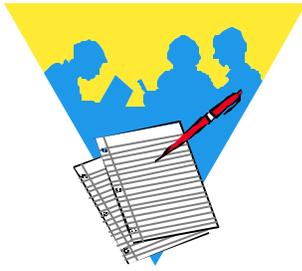
Therefore, compliance is _____ but not _____ for great safety performance.

Safety is about _____, and _____ is the challenge.

How many at-risk behaviors occur for every lost time accident?

- 7 70 700 7,000 70,000 700,000





Turn & Talk

What is the primary purpose of a supervisor?

What is the most effective way to motivate people?

The two most powerful motivators of mankind are:

Motivating Safe Behavior

A

Behavior

C

_____ drive behavior.

What are the potential consequences of _____?

	Soon vs. Delayed	Certain vs. Uncertain	Positive vs. Negative	Personal vs. Organizational

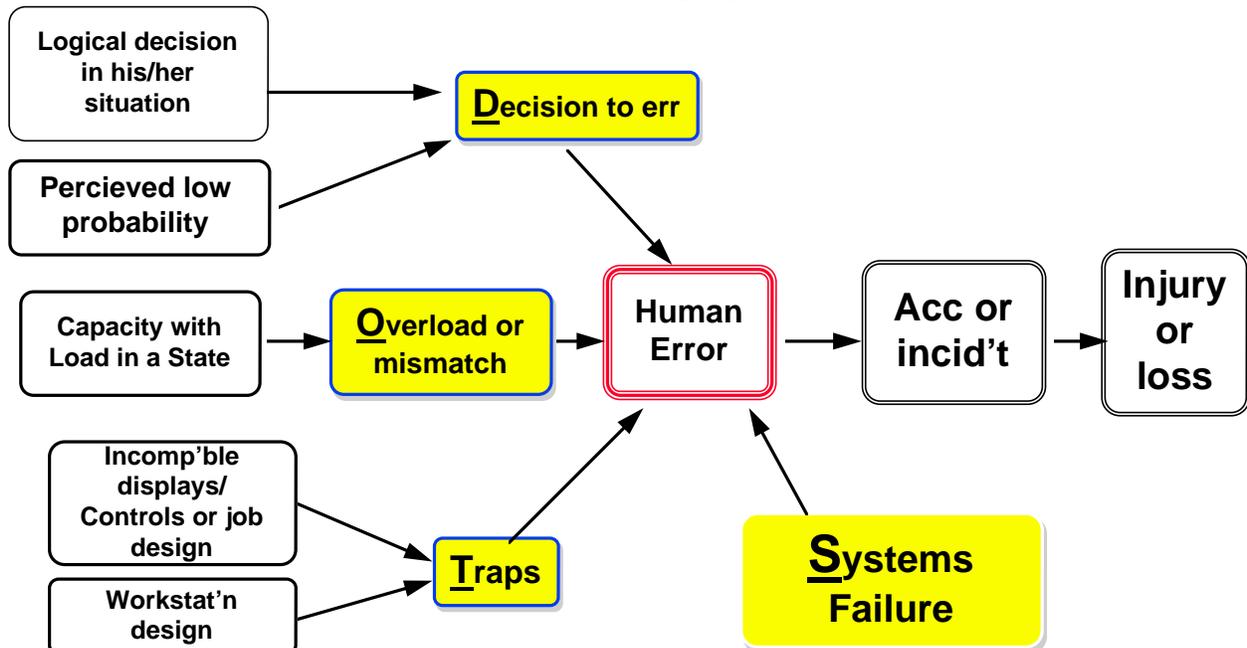
The bottom line:

What safety activities does your company use to promote safe behavior?

	A or C

**Behavior based safety is a systematic approach to _____ and
_____ safe behavior.**

DOTS Accident Causation Model



Decision to Err

- Logical for the situation
 - normative way to do things
 - peer pressure
 - measures of the boss
 - priorities of management
 - personal values
- Unconscious, unthinking
 - unthinking
 - mental problems
- Perceived low probability
 - of an accident happening
 - of actually getting hurt

Overload or Mismatch

- not enough physical strength
- not enough knowledge or skill
- impaired by drugs or alcohol
- too much or too little stimuli
- worry / stress / fatigue

DOTS adapted from Petersen, Dan.
Techniques of Safety Management.

Traps

- Workstation or job design
 - extreme forces required
 - highly repetitive work
 - difficulty reaching or fitting
- Incompatible displays or controls
 - conflicting signals
 - inconsistencies

Systems

- Policy - lack of policy or safe operating proc.
- Responsibility - poorly defined responsibility
- Authority - no authority to act
- Accountability - little accountability for safety
- Training - lack of training and/or new hire orientation
- Measurement - lack of performance measurement
- Communication - lacking communications systems
- Recognition - hazard recognition systems are lacking
- Correction - hazard correction systems are weak or non-existent
- Analysis - accident analysis/investigation don't exist or don't find root causes

Benefits of Behavior-Based Approaches





Benefits: **”Turn your Safety program from flat to fantastic.”**

Support for behavior-based safety can be found in the popular safety literature and amongst recognized experts in the safety field.

Thomas Krause, author of The Behavior-Based Safety Process and Co-founder/CEO of Behavioral Science Technology, Inc. states that "Industrial safety...is a serious subject both in its consequences and its costs. Concerning those costs and consequences, behavior-based safety offers an improvement opportunity that is unparalleled. The effectiveness of behavior-based safety...is being demonstrated at hundreds of sites". Krause provides the following information on cost/benefit analysis for behavior-based safety based on more than ten years of data, from 50 companies selected at random from their database:

- Average size of employee population was 460
- Average payback (breakeven point) for implementation was 27 months
- Using \$567 direct costs per injury and an indirect multiplier of five, the average net cumulative savings in the first five years was 1.54 million.

Krause provides more specific data from a case study at a paper mill:

- A reduction in injury rates was achieved after implementation of behavior-based safety: From 16.8 (industry average was 15.9) to 9 in the first two years and a subsequent continuing reduction down to 5.
- As safe behaviors increased, the recordable rate decreased
- The more employees contacted via observation and feedback, the fewer employees injured

Krause shows the following average reduction in frequency one, two, three and four years after implementation of behavioral-based safety:

1. 34%
2. 44%
3. 61%
4. 71%

E. Scott Geller, author of The Psychology of Safety and founder of Safety Performance Solutions, Inc., provides information on the success of ten different approaches to safety improvement. These ten approaches were ranked according to the mean percentage decrease in injury rates. Behavior-based safety was the most successful approach with a decrease of 59.6%.

BWC Division of Safety & Hygiene success helping Ohio employers with their safety culture and behavioral approaches:

Soft drink bottler

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1995	\$77,337	\$46,200	\$22,809	\$69,009	45	22.5	390	195.0		
1996	\$113,543	\$11,300	\$6,627	\$17,927	29	14.5	48	24.0	3.2	\$69
Savings	\$(36,206)	\$34,900	\$16,182	\$51,082	16		342			
Percent Change	47%			-74%		-36%		-88%		

Spring wire manufacturer

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1993	-	-	-	-	91	45.5	0	0		
1994	-	-	-	-	43	21.5	0	0	0.2	\$27
Savings	-	-	-	-	48		-			
Percent Change						-53%				

Large City Parks department

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1994	-	\$77,060	-	\$77,060						
1995	-	\$3,000	-	\$3,000					10.3	\$181
Savings	-	\$74,060	-	\$74,060						
Percent Change				-96%						

Plastics manufacturer

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1994	-	\$60,000		\$60,000	46	51.1	243	270.0		
1995	-	\$10,000		\$10,000	2	2.2	50	55.6	4.2	\$193
Savings	-	\$50,000		\$50,000	44		193			
Percent Change				-83%		-96%		-79%		

Electric Power Distribution Center

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1995				\$414,384	19	6.3	0	0		
1996				\$174,246	6	2.0	0	0	0.3	\$17
Savings					13					
Percent Change				-58%		-68%				

Power Plant

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1995				\$123,764	44	10.1	0	0		
1996				\$92,258	28	6.4	0	0	2.2	\$13
Savings					16					
Percent Change				-25%		-36%				

Steel manufacturer

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1995						37.8	0	0		
1996						20.4	0	0		
Savings										
Percent Change						-46%				

Long-term care facility

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1995				\$69,612						
1996				\$14,628					6.3	\$264
Savings				\$54,984						
Percent Change				-79%						

Paper & paper products manufacturer

	Insurance Premium	Medical Costs	Compensation Costs	Total Costs	Injuries	Incident Rate	Days Lost	Severity Rate	Return on Investment (months)	Cost per Employee
1996					5	5.0				
1998					1	0.92				
Savings					4					
Percent Change						82%				

Why Behavior – Based Safety?

Here are 10 good reasons

by Jim Fograscher,
BWC Division of Safety & Hygiene
training center manager

Why should a company implement a behavior-based safety process? Other than being popular in the trade magazines, what are the benefits? If it's so great why hasn't the Occupational Safety and Health Administration (OSHA) published a standard requiring it? What makes it different from traditional safety programs? Does it really reduce injuries?

If the safety culture of an organization is ready, behavior-based safety is a tool that can transform a company's safety performance from flat to fantastic. Here are 10 reasons to implement behavior-based safety in your company.

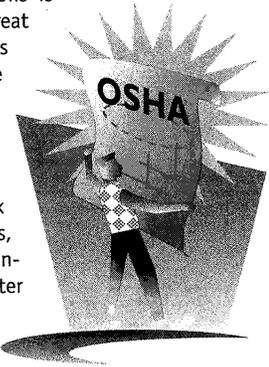
1. Safety is about people

DuPont data suggests that only 6 percent of all injuries occur because of hazardous or unsafe conditions. Conversely, 94 percent of all injuries are a result of unsafe actions, poor decisions and at-risk behaviors on the part of people. As long as there are people in the workplace, people will make poor decisions and mistakes that will result in injuries.



2. Compliance is not sufficient

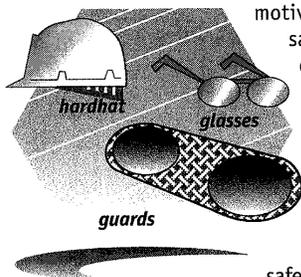
Compliance to OSHA regulations is necessary, but not sufficient for great safety performance. OSHA's focus is on hazards and conditions in the workplace. Most traditional inspections and audits focus on these conditions and things rather than the people who created them or chose not to eliminate them. Back in 1976, during OSHA's early years, nine of every 100 workers were injured while working. By 1996, after 20 years of regulations, inspections and enforcement, seven of every 100 workers could still expect to become injured on the job. Not much bang for the buck.



If you have ever had small children at home, you know that child proofing the house is never enough. We

must teach them to obey certain rules for their safety. Since we can't barricade the street, we teach them to stay out of it and play on the sidewalk. Behavior-based safety is the process by which we teach workers to perform safely.

3. Consequences drive behavior

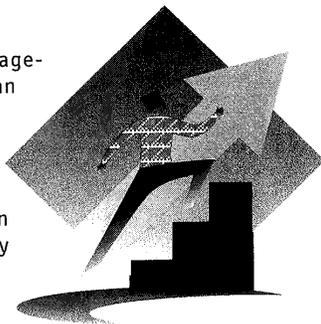


Traditional safety and health programs use such things as posters, rules, training, slogans, and motivational speeches to trigger safe behavior. Behavioral science teaches us that these have far less impact on our behavior than what happens just after our behavior. For example, company policy requires that plant employees wear eye protection. The team talked about it at a safety meeting. These steps are intended to trigger the desired behavior — wearing eye protection.

However, for the worker, the consequences of wearing glasses are that they are hot, uncomfortable, hard to see through, hard to keep track of and they make him or her look silly. Since the immediate consequences are negative, it is easy to understand why the worker wouldn't wear them. Even though the worker could get something in his or her eye, it hasn't happened yet, so the worker rationalizes that it probably won't happen. Finally, nobody else wears them and nobody ever says anything to the worker when he or she doesn't. The consequences for not wearing the glasses are positive. Behavior-based safety teaches leaders how to manage the consequences to get the desired behaviors.

4. Motivating

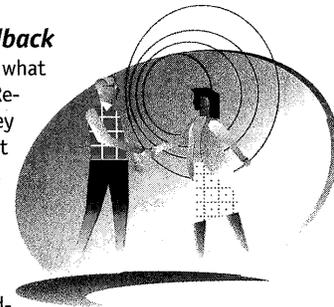
Safety management expert Dan Petersen reports that a positive approach is one of the six key elements of an effective safety program.



Traditional safety has a reputation of being negative, punitive and fault finding. Behavior-based safety gives leaders the opportunity to catch people doing things right and positively reward them for it. Positive reinforcement is one of the two most powerful motivators of mankind. Punishing people for not living up to certain standards will compel them to do just enough to get by. Positive reinforcement can propel people beyond minimum standards to great performance.

5. Performance feedback

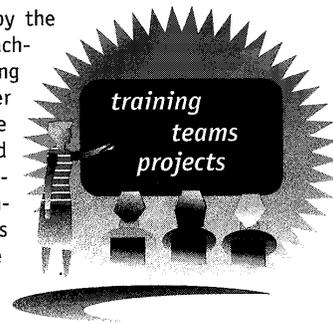
Why don't workers do what they're supposed to do? Research indicates that they think they are doing what they're supposed to do, but they really don't know. This misunderstanding can be overcome with simple and deliberate performance feedback from the supervisor.



Behavior-based safety is a systematic approach to not only identify at-risk behaviors, but to give coaching and feedback about work performance relative to safe and at-risk behaviors. It also provides the missing accountability to everyone in the organization when safety policies are ignored and not enforced. Effective coaching includes both correction for doing the wrong things and positive reinforcement for doing things right.

6. Truly proactive

Managing safety by the incident rate is like coaching a game by watching the scoreboard rather than the activity on the field. Behavior-based safety data can help establish trends and identify deficient systems before the incident rate gets tallied. Process measures,



such as number of observations performed and progress on corrective action plans provide valuable data on injury potential. Ideally, safety teams would plan discussions, training, resources and projects on this data.

7. Broad awareness

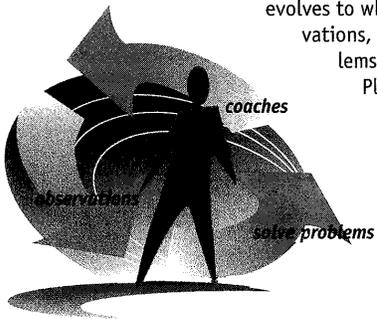
If supervisors make daily safety observations, more people are influenced by these safety contacts than the safety meeting could ever achieve. People are expected to think through risk and exposure rather than mechanically learn seemingly irrelevant rules and sit through training. The behavior-based process is more subtle and sustainable, and makes more of an impact than a big flashy safety campaign.



8. Deep involvement

Supervisor participation is another of Petersen's six elements for an effective safety program.

By making safety observations, supervisors can actively lead safety and set an example to their workers every day, not just at the monthly safety meeting. When supervisors observe and coach, safety becomes a line management responsibility. They can no longer abdicate safety to the safety manager who has no real power to influence people. Workers get involved in assessing risks when they are observed and get to suggest and implement systems changes. Ideally, the process evolves to where everyone makes observations, coaches and solves problems, not just the supervisors. Plus, managing the behavior-based safety data and action plans can be a fresh new charter for tired old safety.



9. Proven effective

In 1993, Dr. Stephen Guastello published an article systematically summarizing the evaluation data from 53 different research reports of safety programs. Of 10 different approaches used to improve safety, behavior-based and ergonomics were ranked one and two in terms of effectiveness. Engineering change came in third.



There has been a great deal of published evidence by Dr. Thomas Krause and others that indicates as safety observations go up, injuries go down. If we ask the right questions, behavior-based safety can serve as on-the-spot near-miss investigation and root cause analysis. Remember, the power here is that we're doing this before an accident occurs.

10. Transcends workplace safety

Supervisors soon discover that coaching skills also are useful for coaching production and quality performance. Soon after implementation, everyone is conditioned to ask "What would happen if...?"

Summary

If your company is ready to adopt behavior-based safety as a tool to transform your company's safety performance, BWC's Division of Safety & Hygiene is ready to help you achieve your goal. Call us at 1-800-OHIOBWC and press 22.



Sources

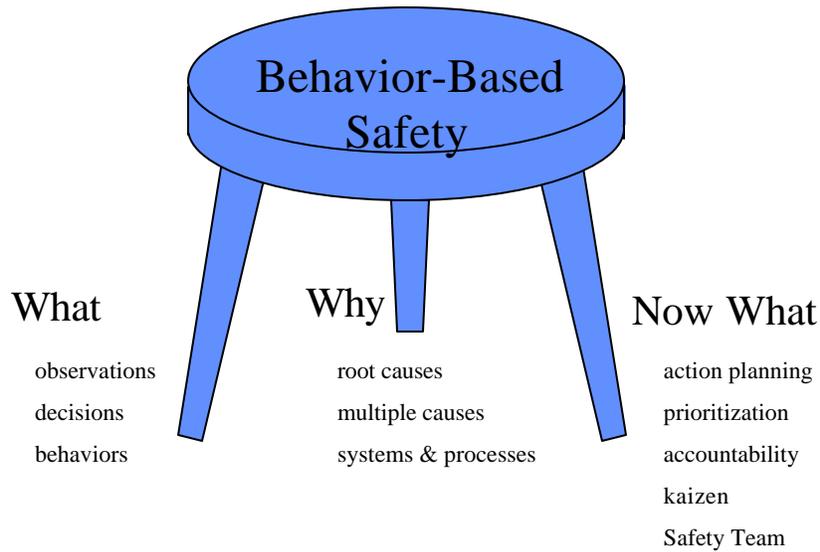
1. "STOP (Safety Training Observation Program Series) for Supervisors." Wilmington, DE: DuPont Safety and Environmental Management Services, Training Materials, rev. 1992.
2. Bureau of Labor Statistics, U.S. Department of Labor.
3. Krause, Thomas R. *The Behavior-Based Safety Process*. New York: Van Nostrand Reinhold, 1997.
4. Petersen, Dan. "The Dan Petersen Safety Management Series." Portland, OR: Safety Training Systems, 1990.
5. Fournies, Ferdinand F. *Coaching for Improved Work Performance*. New York: Van Nostrand Reinhold Co., 1978.
6. Daniels, Aubrey C. *Bringing Out the Best in People: How to Apply the Astonishing Power of Positive Reinforcement*. New York: McGraw-Hill, 1994.
7. Geller, Scott. *The Psychology of Safety*. The Chilton Book Company. Radnor, Pennsylvania 1996.

Behavior-Based Models

to Compare & Contrast



Three Essential Questions



However compelling the evidence for behavior-based safety is, an observation system cannot succeed on observations alone. Observations must be part of a larger process that systematically asks and answers three questions:

1. **What** behaviors are being observed?
2. **Why** are those behaviors present?
3. **Now What** will be done to correct the system deficiencies?

A system without the ...

What leads to fixation on conditions and compliance,

Why may result in fixing symptoms only, missing multiple causes, wasted time & money, continued losses and accident analysis that tends to blame the worker,

Now What results in no progress, repeated behaviors, growing frustration, a tendency to resort to discipline, and a loss of management credibility.

Clearly, unless at-risk behaviors are observed, confronted and remedied, safety will remain reactive and ineffective. Significant losses of human and financial capital will continue.

Discussion of Features

Feature	Strengths	Weaknesses
Peer to peer observation	<ul style="list-style-type: none"> • Many people get involved • No fear of retribution 	<ul style="list-style-type: none"> • Supervisor is out of the loop • No accountability to change behavior
Supervisory observation	<ul style="list-style-type: none"> • Supervisor involved in managing safety • Accountability for doing observations 	<ul style="list-style-type: none"> • Fear of data going on the record • Viewed as confrontational • Only supervision involved initially
Behavior audit (15-30 minutes 1-3 times per week)	<ul style="list-style-type: none"> • Thorough look at several tasks • Few workers can be observed • More information gathered 	<ul style="list-style-type: none"> • Workers adjust behavior while being observed • Time intensive • Feedback session is longer and interrupts work
Snapshot (15-30 seconds 1-3 times per day)	<ul style="list-style-type: none"> • More realistic sample of behavior • Opportunity to see reactive behavior • Less time consuming for observer and observe • Many workers can be observed often 	<ul style="list-style-type: none"> • Only see portions of a task • May miss something this time around
Software Support	<ul style="list-style-type: none"> • Provides regular objective performance feedback • Provides identify trends of problem behavior in certain work areas • Helps keep observers accountable for doing observations • Data can be distributed and communicated easily 	<ul style="list-style-type: none"> • Goals for high percent safe behavior may motivate poor quality observations
Customized behavior inventories	<ul style="list-style-type: none"> • Pinpoints behaviors that have caused accidents in the past • Tailored to suit each work environment 	<ul style="list-style-type: none"> • Not easily transferrable to different environments without new inventory • Limits the scope of behaviors to look for, may miss some important behaviors • Takes time to create and update
General behavior inventories	<ul style="list-style-type: none"> • Observers are skilled and flexible to make observations in all environments, including home • Broad range of behaviors and injury potential is addressed • Ready to go without lengthy research & development 	<ul style="list-style-type: none"> • Fails to formally pinpoint problem behaviors that have lead to past injuries
Emphasis on skilled coaching and feedback	<ul style="list-style-type: none"> • Feedback can be win/win and non-confrontational • Helps coach overcome fear of failure and embarrassment • Corrects tendency to record only safe behaviors and overlook at-risk • Corrective action more likely to take place • Real accountability takes place • Systems problems get addressed 	<ul style="list-style-type: none"> • Takes time • Some people struggle with fear and confidence

Consultants & Providers

The following is a list of behavior-based safety service providers that we have experience with. Inclusion in this list does not represent an endorsement by the Ohio Bureau of Workers' Compensation Division of Safety & Hygiene.

Behavioral Science Technology, Inc.®
417 Bryant Circle, Ojai, California, 93023
1-800-548-5781, or 1-805-646-0166
<http://www.bstsolutions.com>

Safety Training and Observation System (S.T.O.P.)
DuPont Safety, Health and the Environment
1-800-441-7515 or 1-302-774-1000
<http://www.dupont.com/safety/>
<mailto:info@dupont.com>

Quality Safety Edge
Terry McSween
(281) 438-1868
<http://qualitysafetyedge.com>
<mailto:information@qualitysafetyedge.com>

Aubrey Daniels & Associates, Inc.
3531 Habersham at Northlake
Tucker, GA 30084
1-800-223-6191 or (770) 493-5080
(770) 493-5095 (fax)
<http://www.aubreydaniels.com>

Safety Performance Solutions (SPS)
E. Scott Geller
Professor, Virginia Tech
1007 North Main Street
Blacksburg, VA 24060
(540) 951-7233
<http://www.safetyperformance.com>

Performance Management Consultants
P.O. Box 398
Dublin, Ohio 43017
(614) 792-7570
<mailto:PerMgtCon@aol.com>

Roles and Responsibilities

of Stakeholders in the Process

Workers

- Cooperate during the observation and coaching sessions by being open to feedback and praise
- Suggest improvement ideas when given the opportunity
- Help implement improvement ideas when given the opportunity
- Do what you say you'll do
- Be an observer and coach when given the opportunity
- Read behavior-based safety reports when posted
- Model safe behavior in all situations



Observers / Supervisors

- Become a skilled observer through training and practice
- Observe and give feedback per contract
- Use the observation checkbook system as prescribed
- Do what you say you'll do when you said you'd do it
- Communicate and follow-up with employees after re-directive feedback
- Model safe behavior in all situations
- Trigger the hazard correction system when appropriate
- Seek feedback about your coaching proficiency and adjust accordingly



Safety Staff

- Work with Safety Involvement Team as a technical resource & advisor
- Help workers, supervisors and managers solve safety issues
- Train and develop additional observers

Managers

- Review the observation records of each supervisor
- Forward records to _____ for data entry
- Ask questions about those there is concern over
- Periodically validate the credibility of the process
 - Ask probing questions about the quality and effectiveness of process
 - Gather feedback from observers and employees
 - Make observations together with supervisors
 - Coach for process improvement
- Review monthly observations and other contract goals with each supervisor
- Support and encourage supervisor to continuously grow in skill
- Regularly discuss and remove obstacles to great supervisor safety performance
- Support the SI Team with time and resources
- Include safety issues & progress data in staff meetings



Safety Involvement Team

- Post observation feedback data
- Distribute performance measures to managers
- Review & discuss observation results as a team
- Implement strategic and tactical corrections based on observation data
- Manage the safety process improvement action plans
- Communicate action plan progress throughout the organization



ARE YOU READY FOR BEHAVIOR-BASED SAFETY?



Are you Ready for Behavior-Based Safety?

By Jim Fograscher

The safest companies in the world use it. Why shouldn't you?

According to the Safety & Health industry publications, behavior-based safety is the latest and greatest solution to poor safety performance. In my personal file, there is over 30 articles and 5 text books gathered over the past two years on the topic. All of them offering promises of turning your company's safety performance from flat to fantastic. Although it's no magic bullet for injury prevention, there is data to prove that as observations go up, injuries go down. The question is: "Will it work for your company?" The promises of behavior-based safety results are not empty ones, but your company has to be ready.

The truth of the matter is that behavior-based safety does not work in every company. In many Ohio companies it was just another "program of the month". There is plenty of resistance to behavioral programs that promise big benefits but only result in more paperwork, less progress, and mountain of wasted time for safety teams.

Rest assured that behavior-based safety does work. However, like any other prevention program, the conditions need to be right. A viable seed can be expected to grow with fertile soil, sunshine and water. Likewise, conditions like management support, effective management systems and company culture are key to determining whether or not a company is ready for behavior-based safety. Since implementation of these programs can be costly, how can one tell whether or not a company is ready for it?

Readiness Indicators

There are five conditions that dramatically increase the likelihood of success: (1) effective leadership, (2) established safety systems & processes, (3) safety involvement teams, (4) organizational style, (5) measurement & accountability. Though not a scientific instrument, the Safety Culture Wheel (Figure 1) provides a quick self-assessment of a company's readiness.

Leadership

Leadership must be active, visible and lively in its commitment to injury and illness prevention. It's helpful if top executives can articulate a clear and inspiring vision that injury free performance is the only acceptable goal. Managers in safe companies view safety as a line management responsibility rather than the job of the safety manager or committee. Ideally, the top executive includes safety as a core organizational value equal to productivity and quality. Leadership support is to a safety program as sunlight is to that young seedling; without it – sure death.

Systems

In order for behavior based safety to be effective, the basic safety programs need to be in place. This includes minimum OSHA compliance, accident investigation, hazard audits, recordkeeping systems, etc. Safety must be able to walk before it can be expected to run. More advanced systems enhancements like observation, coaching, safety involvement teams, job safety analysis, accountability, safety by objectives, etc. all rely on the basics being in place.

Though individual behavior change is crucial, the best behavior based systems target systems changes because they're capable of influencing the entire organization.

Systems and processes guide decisions and behaviors on the job. As enthusiastic as the leader may be about safety, if the systems do not align with the boss' message, behavior change won't last. The observation system has no roots and withers in the sun.

Involvement

Safety involvement teams are a tool that successful behavior based safety programs use to get employee involvement. Well trained teams, that are skilled at problem solving and decision making, get results. A safety involvement team is ideal for managing observation data and corrective action. Teams are the link between

individual coaching and systems fixes. Employee involvement enhances innovation, ownership and results. Labor / management cooperation, especially within the teams, serves as a catalyst for success. Without participation and involvement behavior-based systems rarely get off the ground. Caution: the typical safety committee does not have the skills, time or vision to manage the behavior-based process. A specially trained team is best for success.

Another critical facet of involvement is buy-in. Behavioral systems are much more effective in organizations that work hard at winning buy-in from the plant floor to the executive suite before they are introduced. Successful companies take the time to solicit suggestions and allow as many people as possible to participate in the decisions and design of the system.

Organizational style

A positive social climate of trust, openness, respect for individuals, positive reinforcement, etc. is an intangible of organizational life that dramatically effects worker performance. With a more negative organizational style involvement is low, complaining replaces problem solving and coaching seems like scolding. In companies low on trust, behavior-based safety is resisted because it symbolizes another way to oppress the worker.

Measurement & accountability

What gets measured gets done. Clearly defined responsibilities at every level of the organization is key for top performance. The process or activities that create a safe work environment are far more important than injury rates when trying to create a safety culture. When performance evaluations include safety meeting, hazard correction, skills development and observation goals, then things get done.

Unfortunately, the safety director is often saddled with all of the responsibility for safety and none of the authority to get things done. In the world's safest companies, supervisors, managers and executives take the responsibility for safety.

Implementation Tips

Other important ingredients include: the right training, competent supervision, experienced safety leaders, and the right behavior-based safety model.

It is important to provide the right training for the right people at the right time. There should be something expected from every person in the organization to contribute to the process. Don't give them all the same training, simply what they need to do their part well and understand what others are doing. Then give them the chance to apply it right away.

Supervisors can make or break the process. If they coach poorly, more problems are created in the culture. If they don't coach at all, unsafe behavior continues. Include training on observation skills, coaching skills, conflict management, problem solving and leading teams for supervisors.

In addition to being ready, there is the art of executing it well. The safety manager must make an accurate judgement of the readiness of a company before implementation. First work on making the culture right for success. Sometimes this can take years but its worth the wait.

Finally, not all behavior change processes are equal. Shop the market because some programs are more compatible within a participative organizational climate, others work best in companies where trust is a problem. Be sure to shop for one that can be customized to your company. The recommended reading list should provide some helpful guidance.

Summary

Any skilled safety professional will recognize that the readiness indicators identified above will help any safety program succeed. However, readiness is even more crucial with behavior-based safety. There will be a flurry of activity, safety awareness increases, and expectations are raised. Since this is a high profile program, false starts can be costly to the long-term safety culture. Though it is not a scientific instrument, self-assessment scores of 6 or greater for each of the axes indicates fairly fertile ground for your behavior-based process to grow in. For more information about behavior-based safety, contact the Division of Safety & Hygiene office nearest you.

Safety Culture Wheel

The Ohio Division of Safety & Hygiene
Leadership Consulting Group

INSTRUCTIONS:

- (1) Consider the questions in each category
- (2) Rate your company on a scale from 0 to 3
 - 0 = Weakness
 - 1 = Some aspects covered
 - 2 = Could be improved
 - 3 = Strength
- (3) Total the points under each category
- (4) Plot the totals onto the corresponding axis.
- (5) Connect the plotted points from axis to adjacent axis.

- ___ Leadership commitment to safety is active, visible and lively
 - ___ A clear and inspiring vision has been established for safe performance
 - ___ Safety is viewed and treated as a line management responsibility
 - ___ Safety is clearly perceived as an organizational value on the same level with productivity and quality
- TOTAL = ___

Leadership

Measurement & Accountability

- ___ All levels of the organization have safety goals and process responsibilities clearly defined
- ___ The process of achieving results is a key safety measure
- ___ Performance reviews include accountability for safe performance at all levels
- ___ Supervision is accountable to perform safety observations and feedback

TOTAL = ___

Systems & Processes

- ___ Supervisors and workers partner to find & correct systems causes of incidents
- ___ Communication systems are abundant, effective and flow well in all directions
- ___ Training systems deliberately & systematically create competency for the right people at the right time
- ___ Safe operating procedures and policies are clearly defined and communicated

TOTAL = ___

Organizational Style

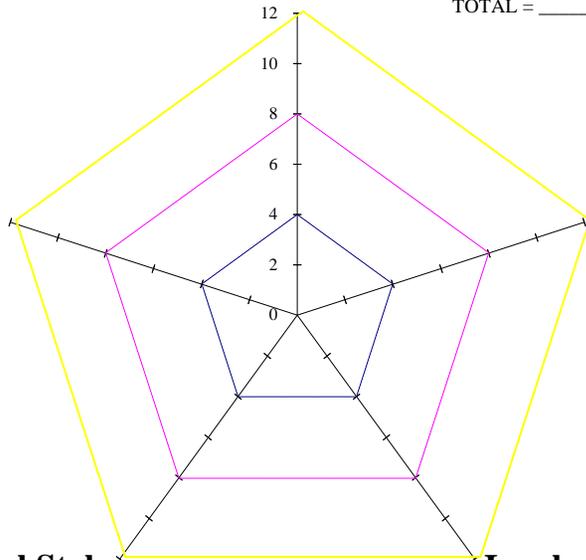
- ___ Trust & openness are the norm
- ___ Positive reinforcement is used regularly
- ___ Bureaucratic obstacles are removed
- ___ There is formal and informal recognition for great performance at all levels

TOTAL = ___

Involvement

- ___ Workers are skilled at problem solving & decision making
- ___ Labor and management work together to address safety systems issues
- ___ Team orientation achieves involvement and cooperation
- ___ Innovation, participation and suggestions are encouraged at all levels

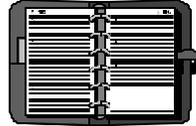
TOTAL = ___



Safety Observation Process

PLAN

1. Determine a time & place to observe
2. Review OBSERVATION MEMORY JOG-
3. Review FEEDBACK TIPS



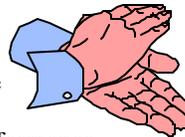
OBSERVE

1. Stop to observe for 15-30 seconds
2. Don't allow distractions
3. Observe people and surroundings
4. Stop any unsafe behavior immediately



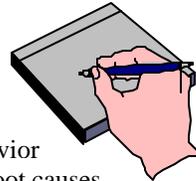
COACH

1. Give FEEDBACK for safe behavior. or
2. COACH for improved performance.



RECORD

1. Check MEMORY JOG-R
2. RECORD observed behavior
3. Use "DOTS" to identify root causes of any unsafe behavior
4. RECORD suggested action, and/or
5. RECORD positive reinforcement, then
6. Turn in observation RECORD



Act !

The Safety Observation Process is a simple four step process for the observer.

Step 1: **PLAN** where and when to make observations and recall what to look for

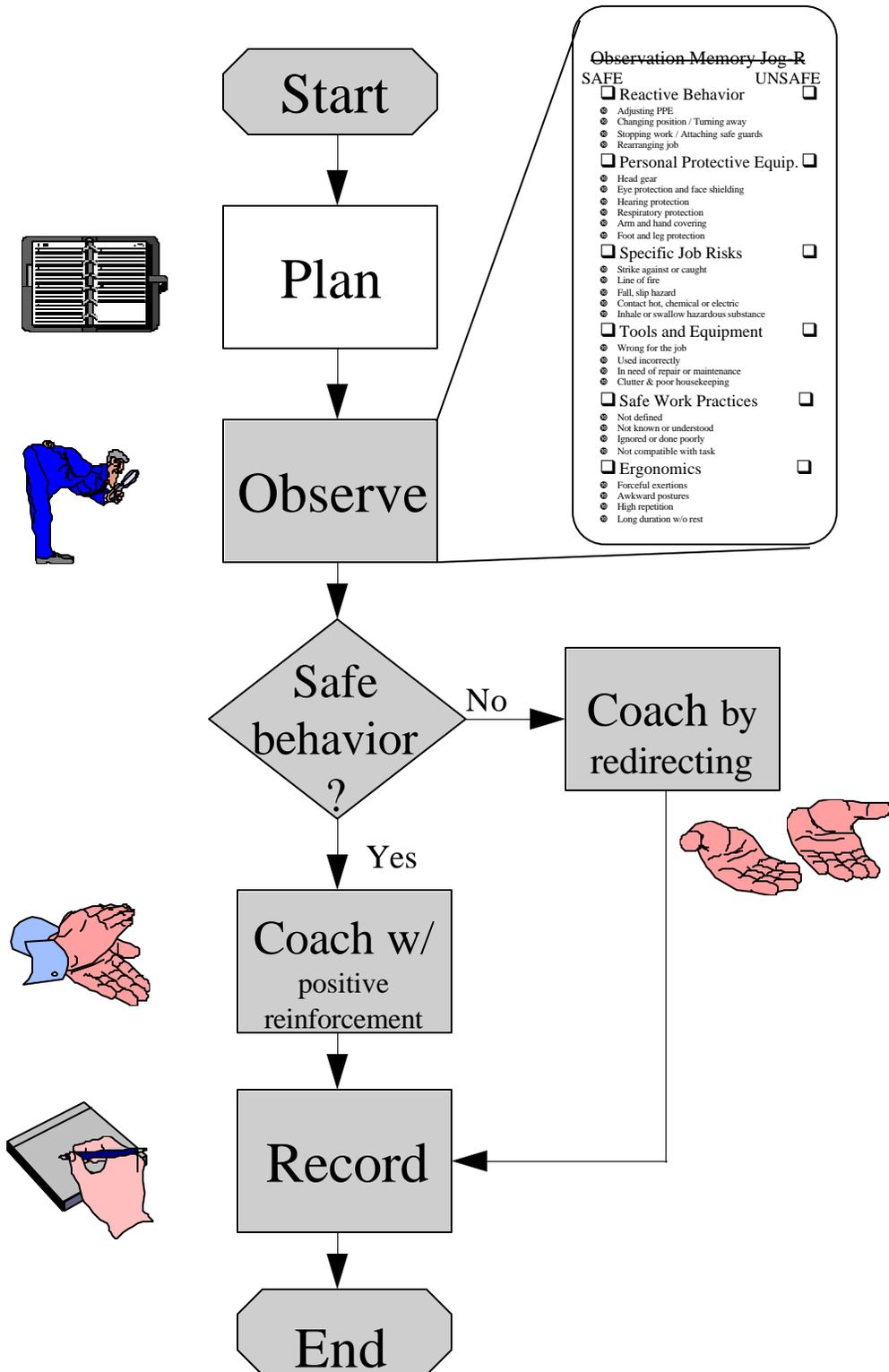
Step 2: **OBSERVE** worker behavior for safe and at-risk performance

Step 3: **COACH** for improved performance by positively reinforcing or redirecting

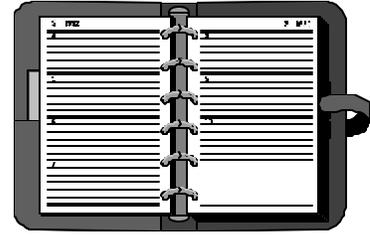
Step 4: **RECORD** *what* was observed, *why* it occurred, and *now what* will be done

The key to effectiveness is taking action necessary to encourage and support safe behavior and good decisions.

Observation Process



Step 1: **PLAN**



A. Determine a time and place to observe

When and how often?

- per contract
- ideally several each day
- random times of the day
- during peak activity periods

Who and where?

- systematically?
- randomly?
- same time of day?
- problem areas?
- only my own people?

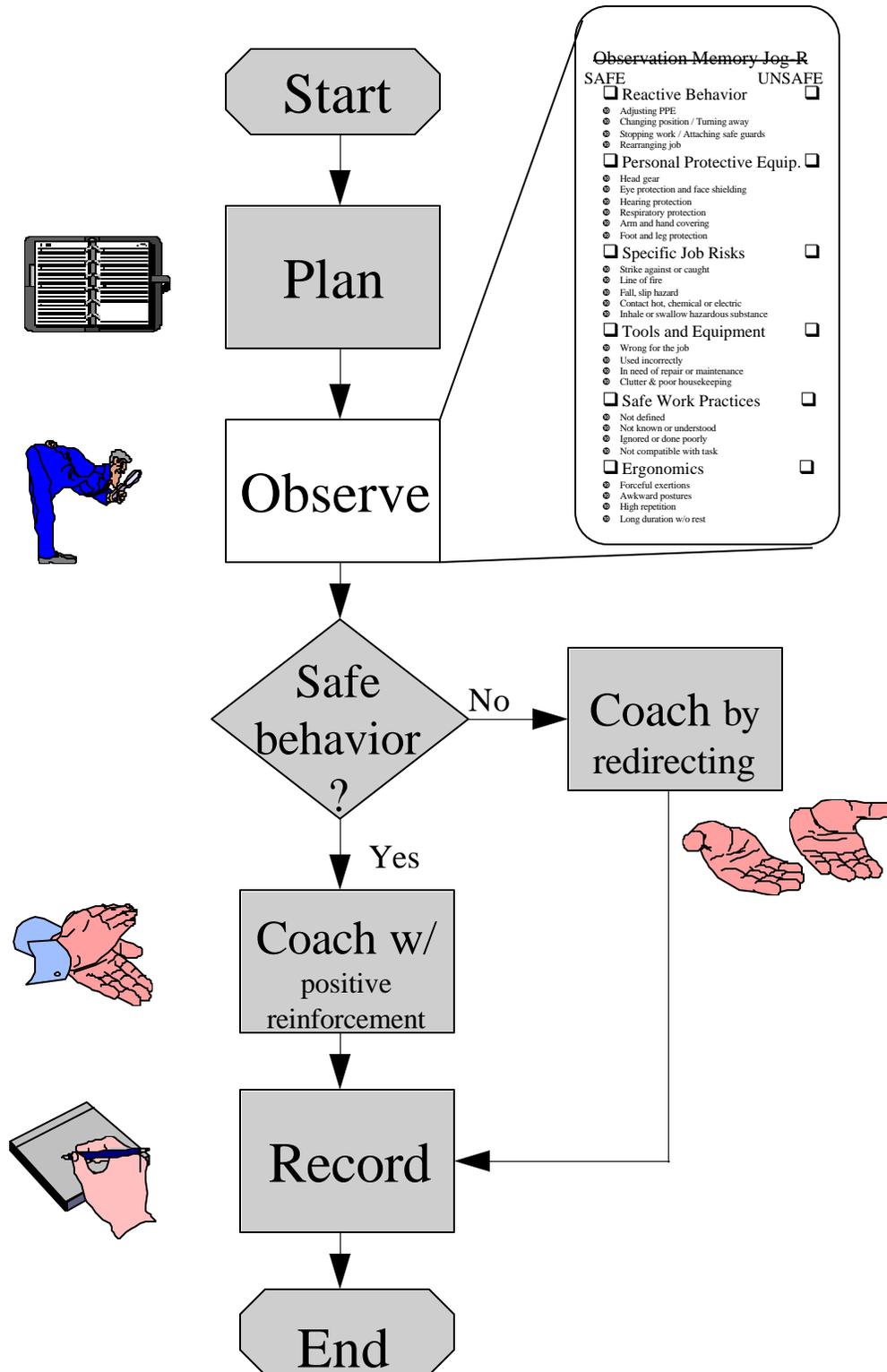
B. Review the Observation Memory Jog-R

See Tab 6.

C. Review the Feedback and Coaching Tips

See Tab 7.

Observation Process



Step 2: **OBSERVE**



A. Snapshots of behavior (15 to 30 seconds)

- stop to observe
- scan the area looking at all workers and operations
- don't announce yourself

B. Allow no distractions

- Excuse yourself, or
- Watch and listen

C. Observe people and surroundings

- Look for both safe and at-risk behaviors
- Observation skills
 1. look for behaviors on the Observation Memory Jog-R
 2. use all 5 senses
 3. watch persons and their surroundings
 4. look at all people in an area
- DON'T fill out your checkbook now

D. Stop any at-risk behavior immediately

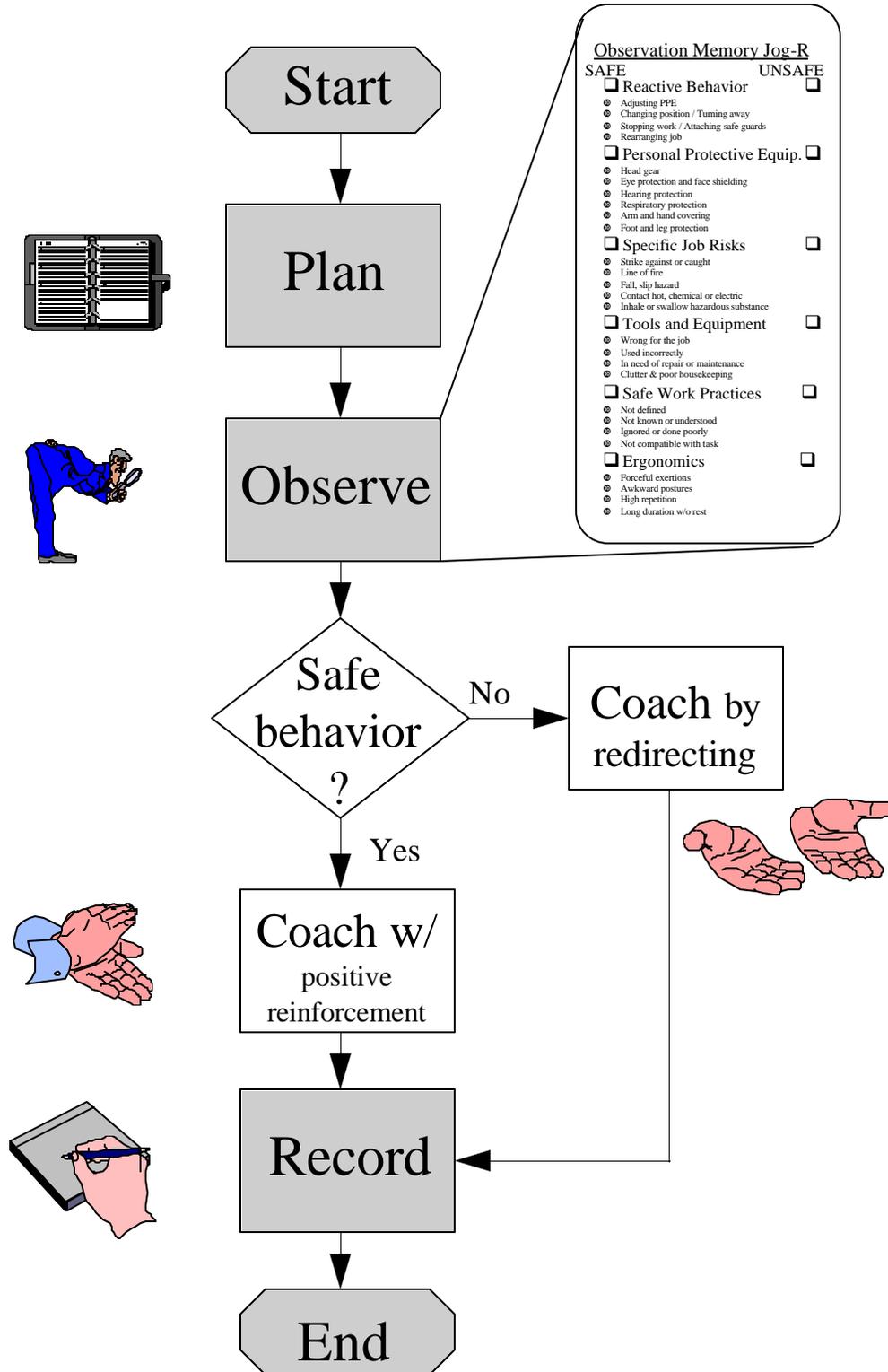
- interrupt the work
- kindly ask worker to stop, you would like to discuss something with them
- if physical hazards exist, find out why

E. Stop observing when

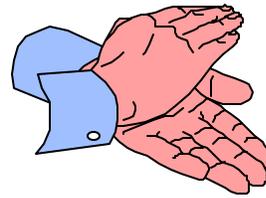
- 15-30 seconds elapses or at-risk behavior is observed, which ever comes first

Look for behavior rather than things and conditions. Consider what the conditions indicate about behavior or decisions.

Observation Process



Step 3: **COACH**



There are really 4 things one can do after making an observation.

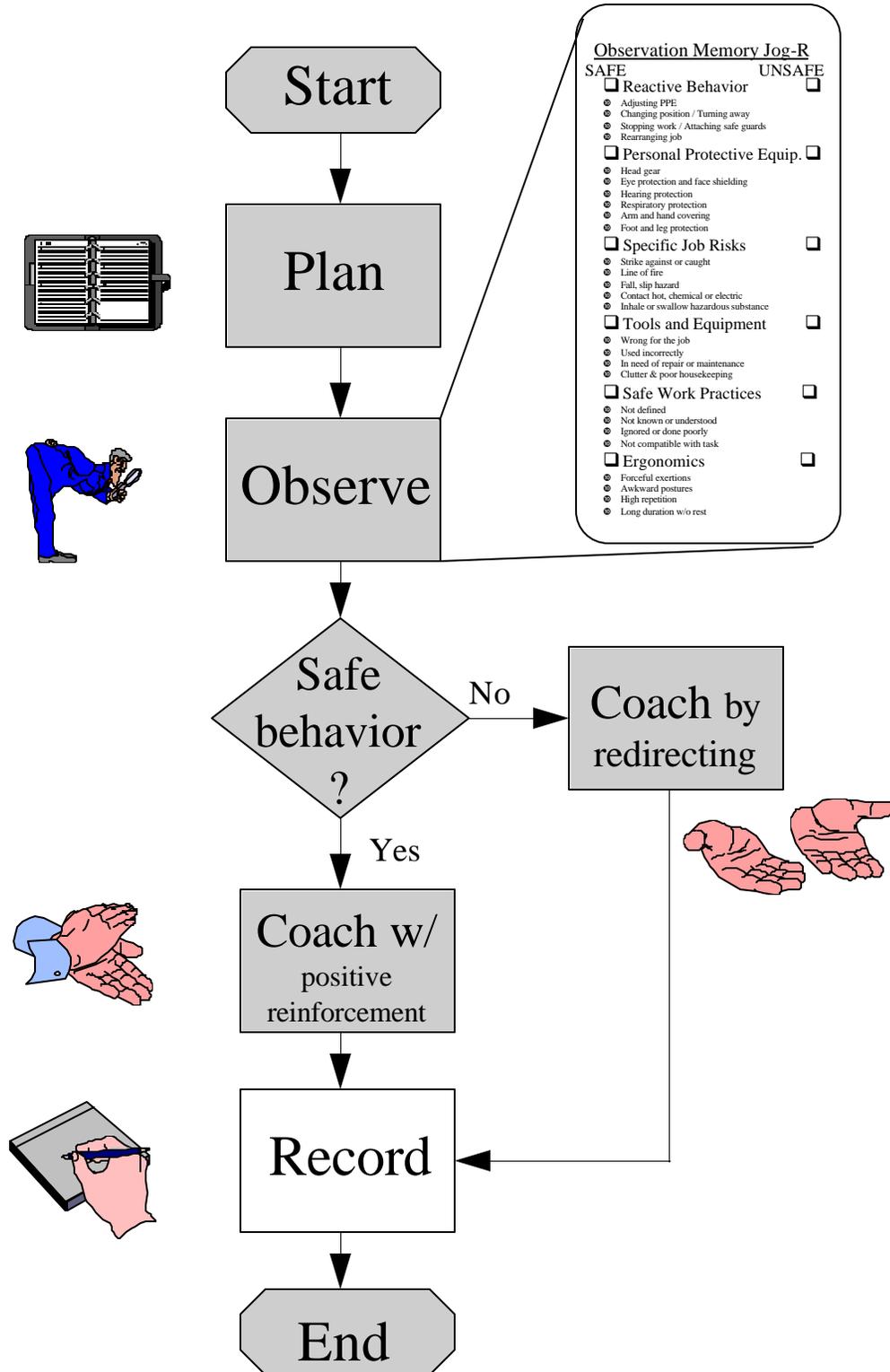
1. Provide positive reinforcement (R+) if safe
2. Coach by shaping behavior if at-risk
3. Ignore what you saw
4. Discipline

Why don't people coach?

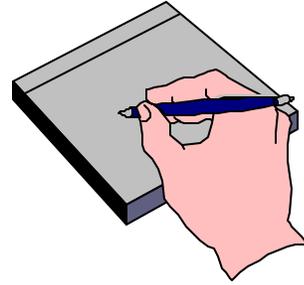
-
-
-
-
-
-

The real power in safety observations is the opportunity for one on one contact with the employee. The percent safe vs. at-risk data is insignificant compared to the impact personal coaching has on behavior and motivation for great performance.

Observation Process



Step 4: **RECORD**



A. Characteristics of Good Recording

1. anonymous
 - never write a workers name or identifier
 - only identify yourself at the bottom
2. specific
 - describe the behavior you observed
3. timely
 - the best time to record is immediately after coaching
 - record away from the work area

B. Safe and At-Risk Behaviors on Memory Jog-R

- Check as many safe behaviors as you can remember observing
- Record *no more than one* at-risk behavior per observation sheet
- Check the *one* at-risk category that best describes WHAT you observed
- Use multiple sheets if you coach for multiple at-risk behaviors
- It is OK to record multiple “safes” with one “at-risk”

C. Use the Observation Record to document

- What was observed?
- Why the behavior occurred?
- What are the next steps?

Observation Record

What?: _____

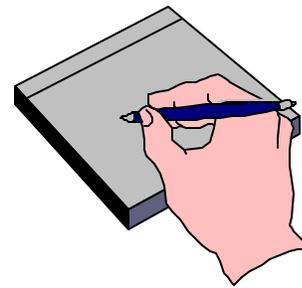
“DOTS” Causation Categories:

- Decision to err?**
- Overload or mismatch?**
- Traps?**
- Systems? *Why?*** _____

Now what?: _____

Supervisor: _____

RECORD continued



Observation Record

WHAT (did you observe)?

- describe the behavior being confronted, safe or at-risk
- explain the box(es) checked on the Memory Jog-R

WHY (did the behavior occur)?

- analyze why the person behaved this way
- discover which systems failed to support safe performance
- use the DOTS causation model to identify the root causes of the behavior (see page 39).

NOW WHAT (are the next steps)?

- IF action is required, record
 - ◆ what action needs taken
 - ◆ who will do it
 - ◆ when will it be done by
- IF no action is required, note the form of recognition used
 - ◆ “thanks”
 - ◆ hand-shake
 - ◆ perk or gratuity

TAKE ACTION

1. turn-in observation “checks” to your boss
2. do what you agreed to do
3. FOLLOW-UP with others as appropriate

Act !

Observation Exercises

Watch the video scenario and fill out the Observation Record for practice.

Observation Memory Jog-R

SAFE	AT-RISK
------	---------

- Reactive Behavior**
 - Adjusting PPE
 - Changing position / Turning away
 - Stopping work / Attaching safe guards
 - Rearranging job
- Personal Protective Equip**
 - Head gear
 - Eye protection and face shielding
 - Hearing protection
 - Respiratory protection
 - Arm and hand covering
 - Foot and leg protection
- Specific Job Risks**
 - Strike against or caught
 - Line of fire
 - Fall, slip hazard
 - Contact hot, chemical or electric
 - Inhale or swallow hazardous substance
- Tools and Equipment**
 - Wrong for the job
 - Used incorrectly
 - In need of repair or maintenance
 - Clutter & poor housekeeping
- Safe Work Practices**
 - Not defined
 - Not known or understood
 - Ignored or done poorly
 - Not compatible with task
- Ergonomics**
 - Forceful exertions
 - Awkward postures
 - High repetition
 - Long duration w/o rest

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Observation Record

What?: _____

“DOTS” Causation Categories:

- Decision to err?**
- Overload or mismatch?**
- Traps?**
- Systems? Why?** _____

Now what?: _____

Supervisor: _____

Observation Exercises

Watch the video scenario and fill out the Observation Record for practice.

Observation Memory Jog-R

SAFE	AT-RISK
-------------	----------------

- Reactive Behavior**
 - Adjusting PPE
 - Changing position / Turning away
 - Stopping work / Attaching safe guards
 - Rearranging job
- Personal Protective Equip**
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 - Hearing protection
 - Respiratory protection
 - Arm and hand covering
 - Foot and leg protection
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 - Strike against or caught
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 - Forceful exertions
 - Awkward postures
 - High repetition
 - Long duration w/o rest

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Observation Record

What?: _____

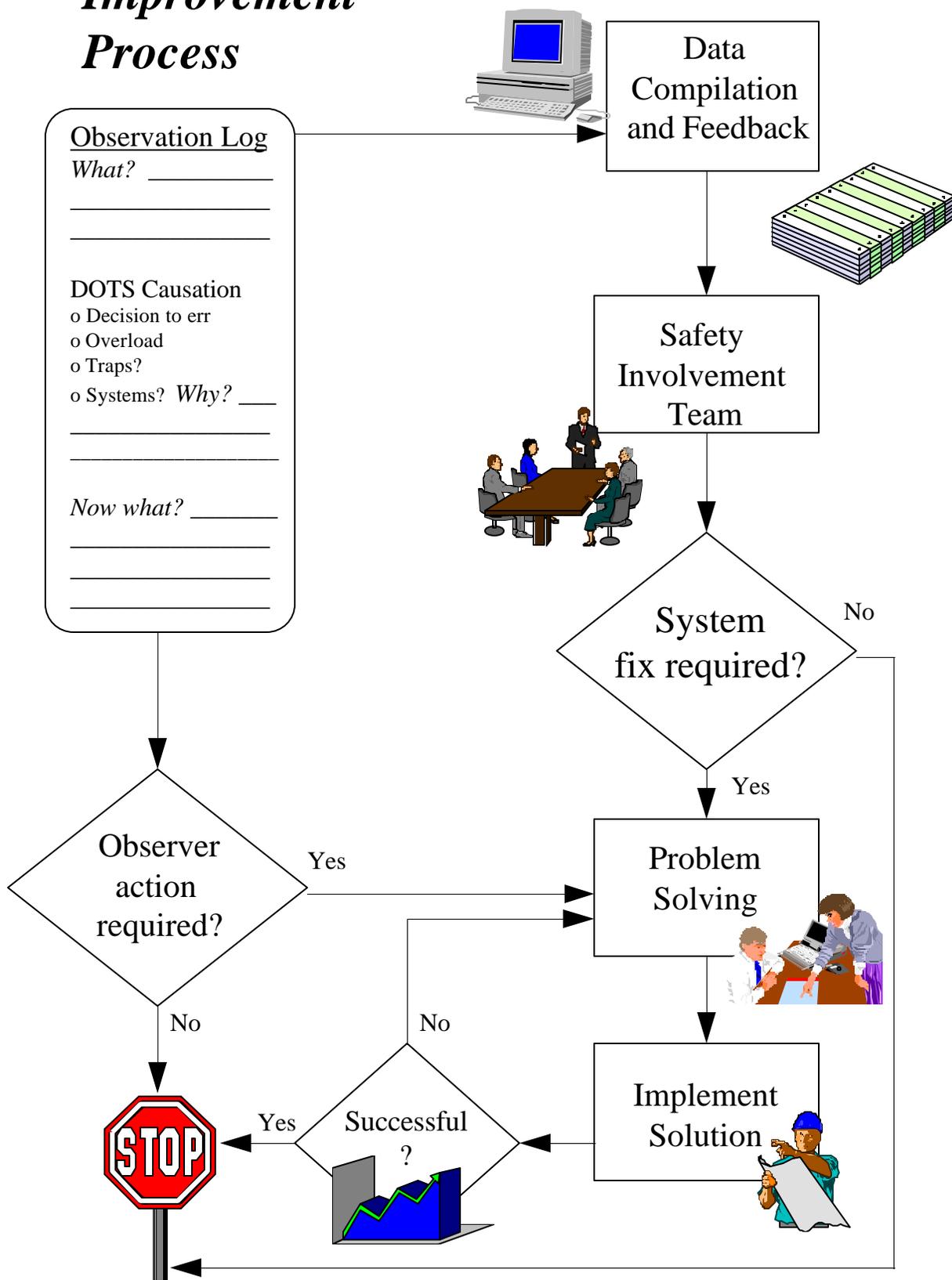
“DOTS” Causation Categories:

- Decision to err?**
- Overload or mismatch?**
- Traps?**
- Systems? Why?** _____

Now what?: _____

Supervisor: _____

Improvement Process



A ***CONTINUOUS IMPROVEMENT*** approach to resolve systems problems must accompany safety observations for maximum results. Almost as important as the observation and coaching is the action taken once the data is compiled and reported. In order to make positive change in the culture, safety systems, structures and processes must be adapted to support workers for great performance.



Data Compilation

The Observation Records are entered into a computer database. The data is then compiled and reported so it can be acted upon. The data output itself serves as a strong form of performance feedback for the whole organization. See appendix B for details.



Safety Involvement Team

Ideally, the Safety Involvement Team (SIT) oversees the observation and continuous improvement processes. It's purposes are to feedback observation results to the organization, analyze the systems problems identified, generate and implement solutions. The SIT also coordinates process improvement with the rest of the organization.



Problem Solving

A variety of skills and tools are used to generate and evaluate alternative system fixes. Involve employees and managers in problem solving. **The observer** is, of course, expected to take any individual action he/she can to support safe behavior and good decisions. This may include triggering the hazard correction system, communicating with the safety involvement team(s), fixing/acquiring something him/herself, or any other action agreed upon during coaching.



Implement Solutions

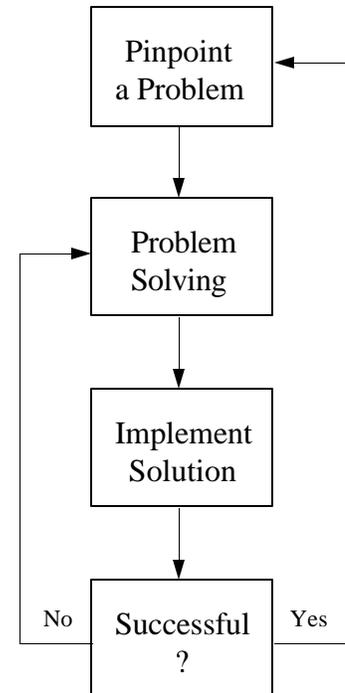
Ready, fire, aim! Action is the trademark of high performance cultures. Implementation planning is a great tool for keeping projects on target, providing team accountability & reinforcement, communicating progress to the organization and measuring success.

Remember What, Who, When and How.

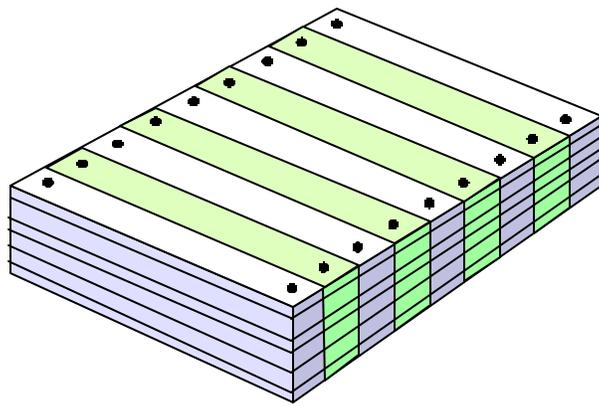


Successful?

Evaluate the success of all solutions. If they are acceptable, go on to the next project. If not successful, return to problem solving and repeat the cycle until it is acceptable. Make sure measures are things that the customer or user thinks are important.



Computer Generated Reports



SAMPLE REPORT 1 - % Safe by Category

DEPARTMENT A

	Safe	At-risk	% Safe	Records	% Records
Reactive Behavior	2	21	9%	23	13%
Personal Protective Equip	14	15	48%	29	17%
Specific Job Risks	4	22	15%	26	15%
Tools and Equipment	39	12	76%	51	29%
Safe Work Practices	32	32	50%	64	37%
Ergonomics	0	31	0%	31	18%
TOTAL	91	133	41%		

DEPARTMENT B

	Safe	At-risk	% Safe	Records	% Records
Reactive Behavior	23	1	96%	24	100%
Personal Protective Equip	21	2	91%	23	96%
Specific Job Risks	23	0	100%	23	96%
Tools and Equipment	23	1	96%	24	100%
Safe Work Practices	23	1	96%	24	100%
Ergonomics	7	0	100%	7	29%
TOTAL	120	5	96%		

SAMPLE REPORT 2 - What and Why

What at-risk behaviors were observed? **Why** did behavior occur? _____

Reactive Behavior

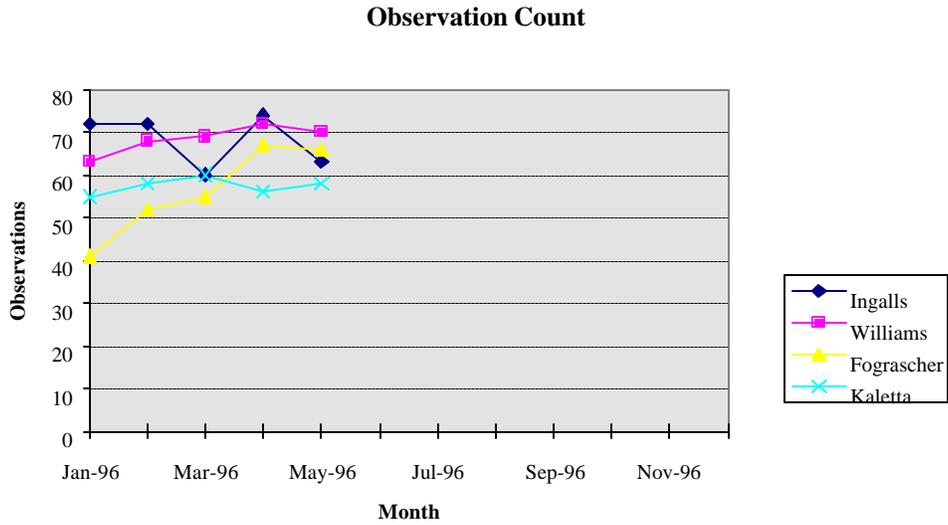
# 11	Put face shield down when saw me coming	Shield fogs blocking view
# 11	Turning off drill motor	No accountability to follow procedure
# 21	Attaching machine guard	Cuts are better and faster without it

...

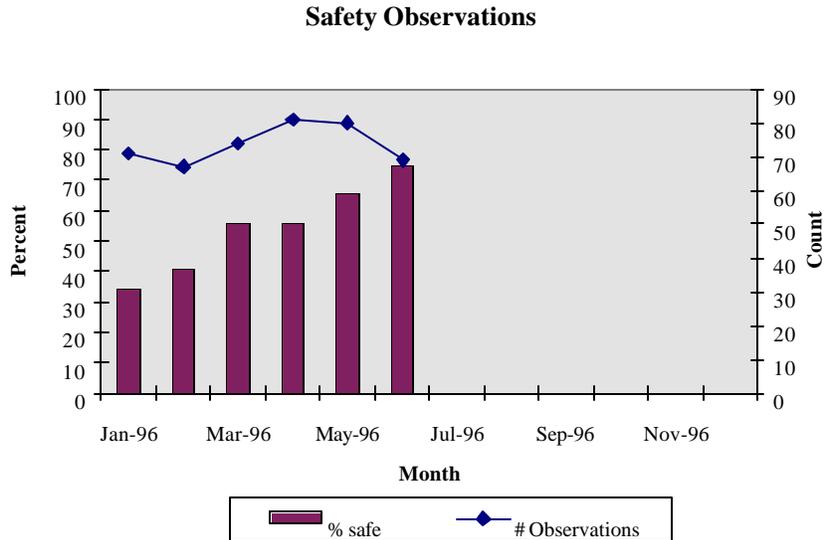
Safe Work Practices

# 21	Did not follow SOP by operating without the machine guard in place	Was never trained on how to properly operate the machinery. Training system failed.
# 23	Left file drawer open and walked away	Unaware of the hazard; Hazard recognition system
# 45	Manhole left open and unbaracaded	Policy not defined; no one made responsible for protecting against this hazard

SAMPLE REPORT 3 - Observations by Month



SAMPLE REPORT 4 - % Safe Observations



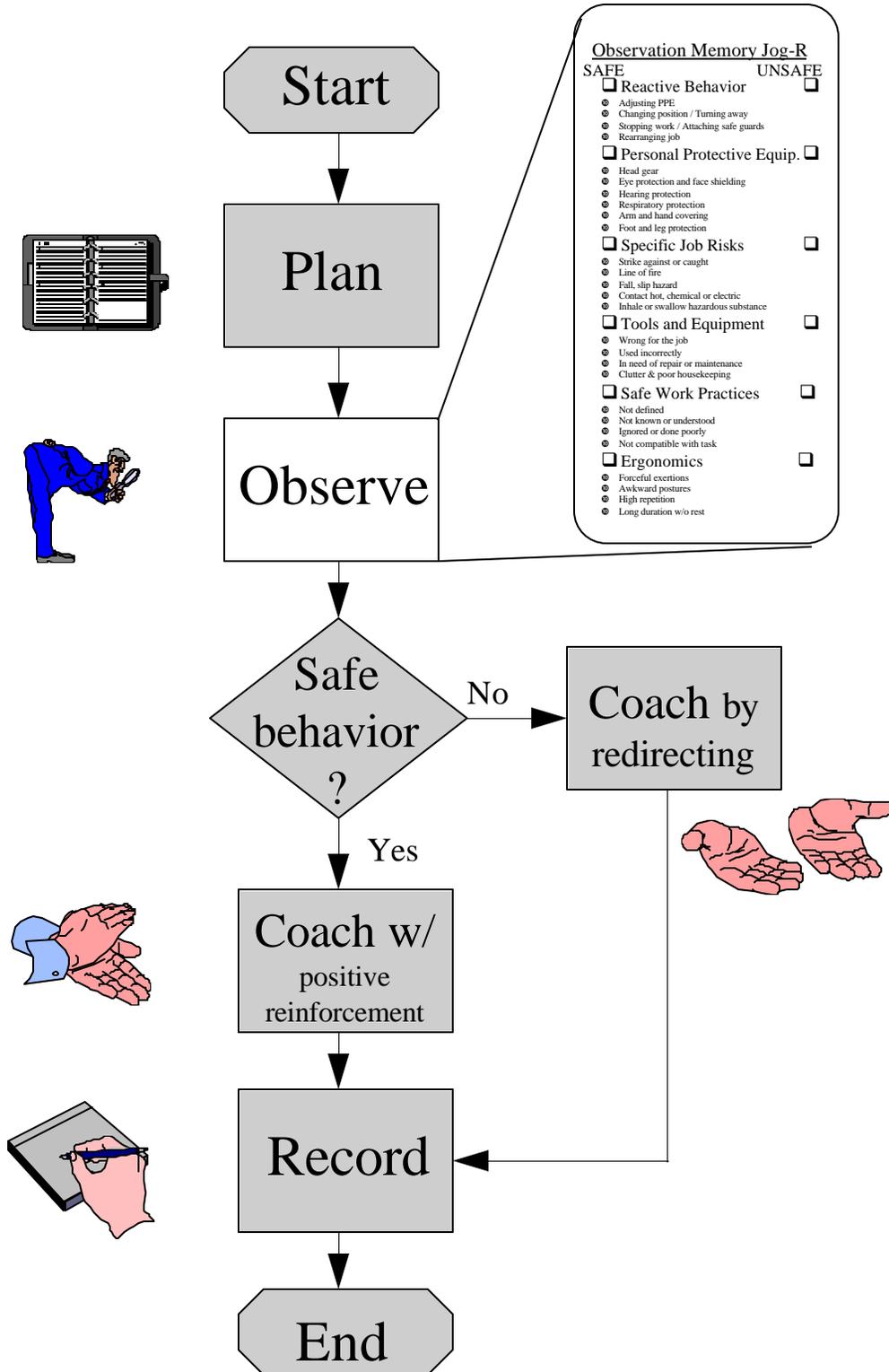
Behaviors to Observe For

Observation Memory Log-R

SAFE	AT-RISK
<input type="checkbox"/> Reactive Behavior	<input type="checkbox"/>
<ul style="list-style-type: none">• Adjusting PPE• Changing position / Turning away• Stopping work / Attaching safe guards• Rearranging job	
<input type="checkbox"/> Personal Protective Equip	<input type="checkbox"/>
<ul style="list-style-type: none">• Head gear• Eye protection and face shielding• Hearing protection• Respiratory protection• Arm and hand covering• Foot and leg protection	
<input type="checkbox"/> Specific Job Risks	<input type="checkbox"/>
<ul style="list-style-type: none">• Strike against or caught• Line of fire• Fall, slip hazard• Contact hot, chemical or electric• Inhale or swallow hazardous substance	
<input type="checkbox"/> Tools and Equipment	<input type="checkbox"/>
<ul style="list-style-type: none">• Wrong for the job• Used incorrectly• In need of repair or maintenance• Clutter & poor housekeeping	
<input type="checkbox"/> Safe Work Practices	<input type="checkbox"/>
<ul style="list-style-type: none">• Not defined• Not known or understood• Ignored or done poorly• Not compatible with task	
<input type="checkbox"/> Ergonomics	<input type="checkbox"/>
<ul style="list-style-type: none">• Forceful exertions• Awkward postures• High repetition• Long duration w/o rest	

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Observation Process



Observation Memory Jog-R

SAFE

AT-RISK

Reactive Behavior

- Adjusting PPE
- Changing position / Turning away
- Stopping work / Attaching safe guards
- Rearranging job

Personal Protective Equip

- Head gear
- Eye protection and face shielding
- Hearing protection
- Respiratory protection
- Arm and hand covering
- Foot and leg protection

Specific Job Risks

- Strike against or caught
- Line of fire
- Fall, slip hazard
- Contact hot, chemical or electric
- Inhale or swallow hazardous substance

Tools and Equipment

- Wrong for the job
- Used incorrectly
- In need of repair or maintenance
- Clutter & poor housekeeping

Safe Work Practices

- Not defined
- Not known or understood
- Ignored or done poorly
- Not compatible with task

Ergonomics

- Forceful exertions
- Awkward postures
- High repetition
- Long duration w/o rest

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Notes on physical hazards:

When observing behaviors, observers may also identify hazardous conditions. All physical hazards are a result of someone's behavior in the past.

Find out why the condition was allowed to exist and who made the decision.

It is too easy to blame the worker for hazards. Often the worker is doing what he has been taught or expected to do.

The point is to coach that person to safe behavior and trigger the hazard correction system if necessary.

Classic causes for hazards:

- misplaced priorities
- poor training
- lack of enforcement
- no systematic servicing
- no accountability

OBSERVING for Reactive Behavior

The first 10 to 30 seconds are critical to see what is really going on. Workers tend to react to the presence of an observer and at-risk behaviors “evaporate” quickly. Examples of reactive behavior include:

Adjusting personal protective equipment (PPE)

- *putting face shield down*
- *putting on eye protection*
- *fastening back belt*
- *slipping ear plugs into place*

Changing position or turning away

- *changing from stoop to squat while lifting*
- *grabbing tool with both hands rather than one*
- *moving out of line of fire*
- *changing the direction of cutting*
- *turning back to you so you can't see their hands or face*

Stopping work

- *walking away from the work station*
- *turning off the machine*
- *quickly switching tools or task*
- *starting a conversation with you or someone else*

Attaching safeguards

- *stopping work to put guard back on machine*
- *interrupting task to put chucks behind tires*
- *reaching for personal protective equipment*
- *attaching lockout/tagout devices*

Re-arranging job

- *subtly cleaning up clutter*
- *changing from the wrong tool to the right one*



The observation must begin immediately upon entering the work area. Don't allow yourself to be distracted.

Observation Memory Jog-R

SAFE

AT-RISK

Reactive Behavior

- Adjusting PPE
- Changing position / Turning away
- Stopping work / Attaching safe guards
- Rearranging job

Personal Protective Equip

- Head gear
- Eye protection and face shielding
- Hearing protection
- Respiratory protection
- Arm and hand covering
- Foot and leg protection

Specific Job Risks

- Strike against or caught
- Line of fire
- Fall, slip hazard
- Contact hot, chemical or electric
- Inhale or swallow hazardous substance

Tools and Equipment

- Wrong for the job
- Used incorrectly
- In need of repair or maintenance
- Clutter & poor housekeeping

Safe Work Practices

- Not defined
- Not known or understood
- Ignored or done poorly
- Not compatible with task

Ergonomics

- Forceful exertions
- Awkward postures
- High repetition
- Long duration w/o rest

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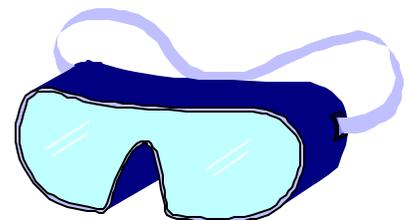
OBSERVING for Personal Protective Equipment

The purpose of PPE is to shield the body from exposure to hazardous physical, environmental or chemical agents. It is essential for the observer to be familiar with the hazards and protective gear that is appropriate for each work area. Use the following table to note what PPE is warranted in different environments.

PPE Type	Protects against ...	Department(s)
Head gear	falling objects, low hanging objects	
Eye & face gear	flying or blowing particles like dust, sparks; splashing liquids; intense heat or light, blood borne pathogens	
Hearing protection	constant machine noise or intense bursts of sound energy	
Respiratory protection	dangerous dusts, gases, vapors, mists	
Arm & hand covering	cuts, burns, cold, bumps, electrocution, caustic liquids, blood borne pathogens	
Foot and leg protection	heavy objects that could roll or fall, objects on wheels, burns from sparks	

Is PPE being used properly?

Is PPE in good working condition?



Observation Memory Jog-R

SAFE

AT-RISK

Reactive Behavior

- Adjusting PPE
- Changing position / Turning away
- Stopping work / Attaching safe guards
- Rearranging job

Personal Protective Equip

- Head gear
- Eye protection and face shielding
- Hearing protection
- Respiratory protection
- Arm and hand covering
- Foot and leg protection

Specific Job Risks

- Strike against or caught
- Line of fire
- Fall, slip hazard
- Contact hot, chemical or electric
- Inhale or swallow hazardous substance

Tools and Equipment

- Wrong for the job
- Used incorrectly
- In need of repair or maintenance
- Clutter & poor housekeeping

Safe Work Practices

- Not defined
- Not known or understood
- Ignored or done poorly
- Not compatible with task

Ergonomics

- Forceful exertions
- Awkward postures
- High repetition
- Long duration w/o rest

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OBSERVING for Specific Job Risks

While observing actions of workers, take care to observe the likelihood of any of the actions that could be harmful to the worker. Are they in danger from anything on the list below? Are they creating danger for any of the people working around them?

Strike against or caught

- *long loose sleeves around revolving equipment*
- *standing in front of a grinding wheel when starting it*
- *hair, clothing or tie that could be caught in machinery*
- *placing hands in machinery while it is running*

Line of fire

- *cutting towards the free hand*
- *pushing wrench (that could slip) towards free hand*
- *standing in front of a valve being opened*
- *spraying sparks at self or co-worker or into the aisle*
- *walking in path of vehicle traffic*

Fall, slip hazard

- *packing material spilled into an aisleway*
- *walking past a puddle of fluid on the floor*
- *standing on top shelf of a ladder*
- *climbing on equipment, not using a ladder*
- *climbing stairs not using hand rail*
- *running*
- *working above the ground without fall protection*



Contact with hot, chemical or electric hazards

- *working around open circuit boxes*
- *using equipment with faulty wiring or grounding*
-

Risk of inhaling or swallowing a hazardous substance

- *food or beverage eaten or left in hazardous materials area*

Observation Memory Jog-R

SAFE

AT-RISK

Reactive Behavior

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- Changing position / Turning away
- Stopping work / Attaching safe guards
- Rearranging job

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OBSERVING for Tools and Equipment

Statistics show that 25% of accidents and injuries occur because of people not using the proper tool or equipment for a specific job. Tools designed for one application and used for another increase the risk of injury. Improperly functioning tools expose workers to unexpected situations that also increase the risk of injury.

Wrong for the job or used incorrectly

- *using the hand as a hammer*
- *using a screw driver to cut open a package*
- *hammering with a wrench*
- *proper tool not available*
- *tool use causes awkward hand/wrist/arm posture*
- *using a tool with greater or lesser capacity than needed for the job*
- *modifying tools to enhance performance*
- *using thumb to activate pistol grip tool*



In need of repair or replacement

- *using tools that are visibly in need of repair*
- *tool performs erratically*
- *using fork lift with brakes that don't work right*
- *using a ladder with a broken rung*
- *tool handles slippery or dirty*
- *failure to take broken equipment out of service*

Clutter & poor housekeeping

- *equipment, tools and debris laying around the work area*
- *worker doesn't put tool away when finished*
- *workers step over clutter rather than cleaning it up*
- *workers not expected to clean up the area at the end of a shift*

Remember not to automatically blame the worker. Often they work with whatever equipment is provided to them. Also they perform in ways they are held accountable for. Decisions by the supervisor to confront issues or not is an at-risk behavior in itself.

Observation Memory Jog-R

SAFE

AT-RISK

Reactive Behavior

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- Rearranging job

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- Awkward postures
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OBSERVING for Safe Work Practices

There are several reasons workers will not follow safe work practices. Do not assume workers always know the safe procedure. First, the observer must know the correct procedure. Then, find out why the worker is not following it by using skillful coaching techniques.

Not defined

- *the safe work practices have never been defined for this task*
- *safe work practices exist in a manual somewhere (but nobody knows them)*

Not known or understood

- *workers have not been trained on safe work practices*
- *training was poor or insufficient*
- *workers were transferred into this operation with adequate orientation*

Ignored or done poorly

- *work practice is defined, training is adequate yet worker deviates from procedure*
- *worker takes short cuts*
- *worker makes up own way of performing task*
- *worker takes unnecessary risks*

Not compatible with task

- *safe work practices are generic or inapplicable to this task*
- *procedures are out dated*
- *process has changed since last training*
- *tools or equipment have changed the task and the associated hazards*



Observation Memory Jog-R

SAFE

AT-RISK

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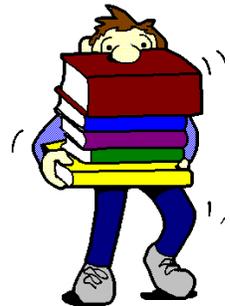


OBSERVING for Ergonomics

Most ergonomics problems result because the worker is forced to physically adapt to the tools and environment in order to perform the job. Like other physical hazards, consider what the risk factors indicate about decisions and behaviors of those designing the jobs. Common risk factors include:

Forceful Exertions

- *heavy lifting, pushing or pulling, gripping*
- *tasks that require great strength*
- *sharp and blunt edges pushing on soft tissues of the hand, arm ,etc.*



Awkward Postures

- *any time a joint moves out of the neutral posture*
- *the more extreme the posture, the greater the risk of injury*
- *any joint can be affected including: bending, twisting, reaching, stooping, extending, etc.*



Repetition

- *doing the same motion over and over again*
- *does not necessarily require a fast pace*



Lack of Rest

- *no time to recover from fatigue*
- *skips rest breaks or rushes to beat a quota*
- *high paced jobs*



Observation Memory Jog-R

SAFE

AT-RISK

- Reactive Behavior**
 - Adjusting PPE
 - Changing position / Turning away
 - Stopping work / Attaching safe guards
 - Rearranging job
- Personal Protective Equip**
 - Head gear
 - Eye protection and face shielding
 - Hearing protection
 - Respiratory protection
 - Arm and hand covering
 - Foot and leg protection
- Specific Job Risks**
 - Strike against or caught
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 - Wrong for the job
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Exercise: Identify which Memory Jog-R category each behavior fits into.

Behavior Observed	RB	PPE	SJR	T&E	SWP	ER
1. Man working on top surface of a ladder						
2. Cutting towards the free hand while using a utility knife						
3. Machining without goggles or face shield						
4. Walking away from the job when someone enters the room						
5. Pulls an electrical plug out by the middle of the cord						
6. Ties down one palm button to operate a press						
7. Waits for assistance before lifting a fallen patient from the floor						
8. Uses hand to force the lid on large plastic tub without the mallet						
9. Locks-out and tags power source of machinery before fixing it						
10. Gathered workers scatter as you approach						
11. Fork lift operator blocks an exit with a pallet						
12. Power saw operated with guard removed						
13. Pistol grip tool triggered by the thumb rather than index finger						
14. Pushing wrench around shaft towards hand supporting weight						
15. Climbing up storage rack to pick one small part						
16. Ear plugs dangling on a string around the neck						
17. Enters confined space because co-worker doesn't respond						
18. Find a box tipped over with shipping materials spilled in aisle						
19. Man jumps in the vehicle & leaves without fastening seat belt						
20. Nurse puts on gloves before drawing blood						
21. Working without a shirt in the sun						
22. Walking carefully past a "wet floor" warning sign						
23. Walks past an oil spill on the factory floor						
24. Steps over conveyor line to get to other side quickly						
25. Reaches up the conveyor line to hurry parts along						
26. Skips a scheduled rest break to meet production quota						
27. Asks for help because not clear about what to do next						
28. Refuses to do a task because it appears unsafe						
29. Sitting with legs crossed						
30. Pounds rubber grommet into place with crescent wrench						

Proficiency score = _____ / 30

Observation Exercises

Watch the video scenario and fill out the Observation Record for practice.

Observation Memory Jog-R

SAFE	AT-RISK
-------------	----------------

- Reactive Behavior**
 - Adjusting PPE
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 - Awkward postures
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 - Long duration w/o rest

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Observation Record

What?: _____

“DOTS” Causation Categories:

- Decision to err?**
- Overload or mismatch?**
- Traps?**
- Systems? Why?** _____

Now what?: _____

Supervisor: _____

Observation Exercises

Watch the video scenario and fill out the Observation Record for practice.

Observation Memory Jog-R

SAFE	AT-RISK
-------------	----------------

- Reactive Behavior**
 - Adjusting PPE
 - Changing position / Turning away
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Observation Record

What?: _____

“DOTS” Causation Categories:

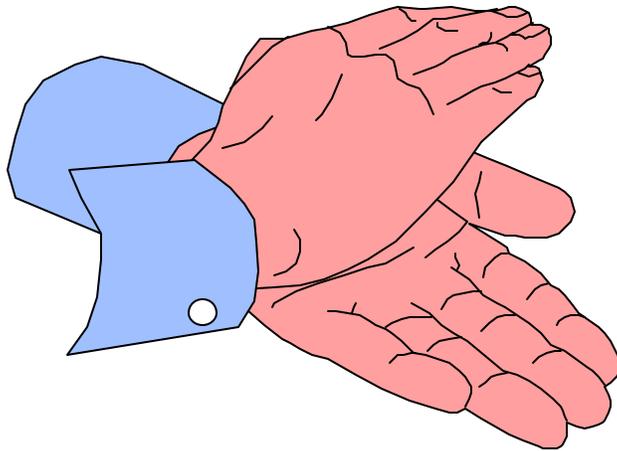
- Decision to err?**
- Overload or mismatch?**
- Traps?**
- Systems? Why?** _____

Now what?: _____

Supervisor: _____

Coaching and Feedback

for the Skilled Observer



Introduction

Research has shown that feedback is the most powerful determinate for a person's performance. Without feedback, behavior and decisions are made intuitively or by guessing.



For example, if you were to participate in the sport of bowling, how would you feel if there was a curtain between you and the pins? Would you know the result of your attempts to knock the pins down? Of course not. After a while how would you feel? Frustrated, exasperated and eventually you would begin to care very little about whether or not the pins were even touched.

Feedback is very significant to how we view ourselves and our efforts. Feedback means more to the individual than just knowing the results of our efforts. Returning information, feedback, following effort reinforces the picture we carry of ourselves. This is how we maintain our self esteem and measure our worth. Worth is usually viewed in terms of our value as a human and value as a member of an organization. That is why feedback is so very important.

Where does feedback come from? A variety of sources can provide feedback to let us know how we are doing, whether we are being successful or how we need to adjust our approaches. Whether or not we perceive we are successful in terms of achieving our objectives/desires is one source of feedback. The environment, our physical surroundings, provides other opportunities for feedback. The people we interact with provide one of the most important sources of feedback.

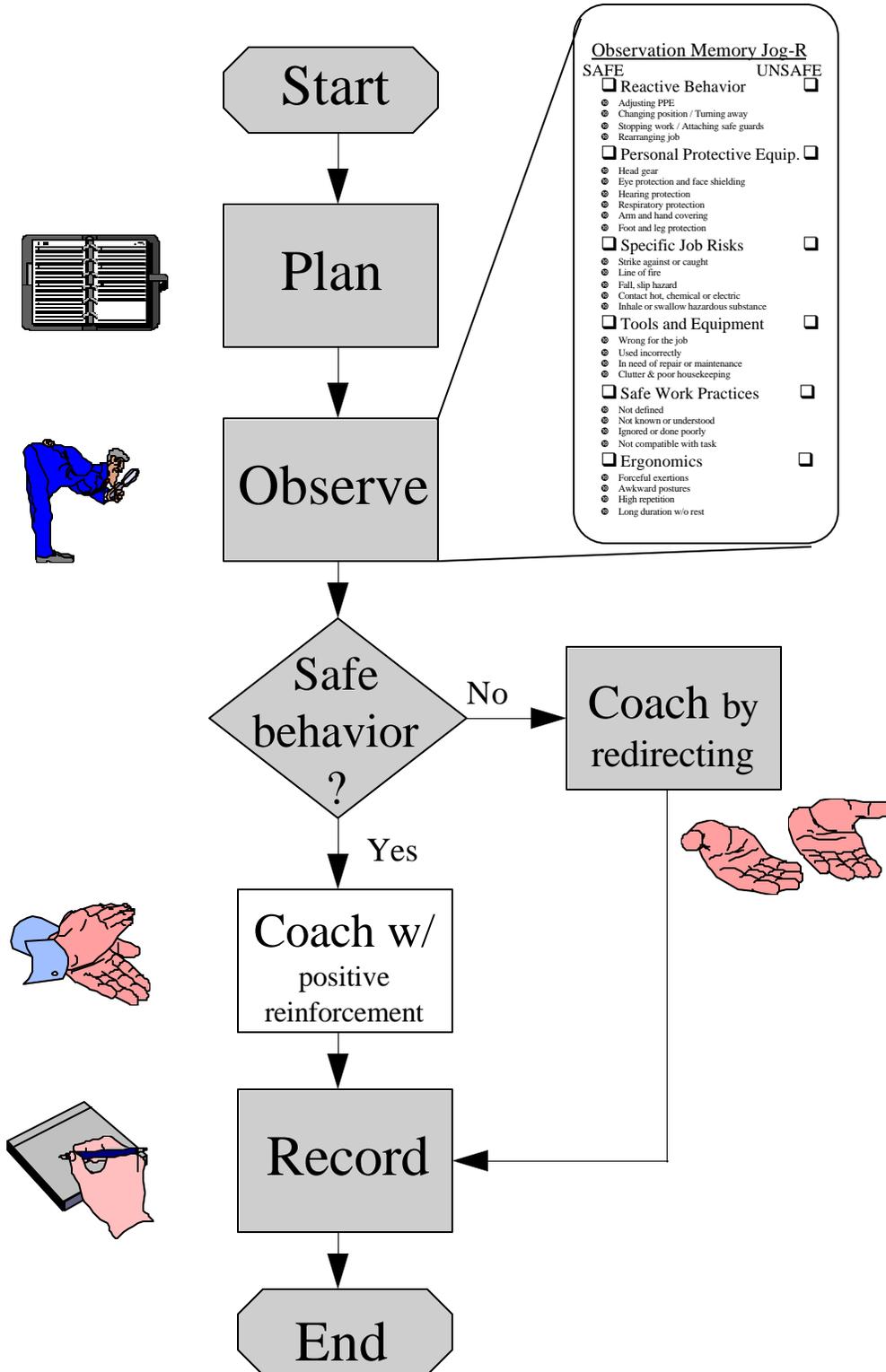
In the work environment, our co-workers and supervisors play an important role in helping us to understand how we are doing. These people can give us precious information about ourselves and our efforts. Unfortunately, these two key sources of feedback are mostly underutilized, or even not utilized at all.



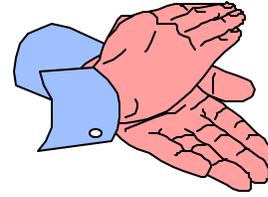
We work with co-workers daily, even minute by minute, but often peers are reluctant to provide feedback. This happens for a variety of reasons. Fear of the response one is likely to get; feeling that providing feedback is not part of one's role or responsibility; a lack of confidence in one's ability to successfully provide feedback; or other reasons reduce the likelihood of peer-to-peer feedback.

Supervisors are human, too. The same fears and feelings apply to supervisors as they do to co-workers. However, the supervisor is in the best position to provide feedback. Since the supervisor is both responsible and accountable for the safety and effectiveness of operations under his/her direction, providing feedback is mandatory for achieving excellence. It is this opportunity for feedback that we need to focus our attention on.

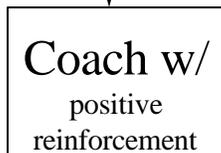
Observation Process



Step 3: **COACH**



Yes



Positive Reinforcement

Give praise

- “thanks for ...”
- “I appreciate how you ...”
- “You set a good example...”
- “I’m glad I can count on you...”
- pat on the back
- hand shake

Explain why this behavior is right and/or safe

- “that was a great example of ...”
- “I think you’ve found the best way to ...”

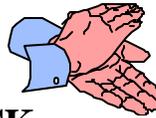
Encourage continued behavior

- “your leadership is important ...”
- “keep up the good work ...”
- “I value your input ...”

Safety observation is the opportunity for one on one contact with the employee. The impact of personal coaching on behavior and motivation for great performance is significant.

Feedback Tips assist the observer in giving appropriate feedback on the spot.

Feedback Tips



POSITIVE FEEDBACK

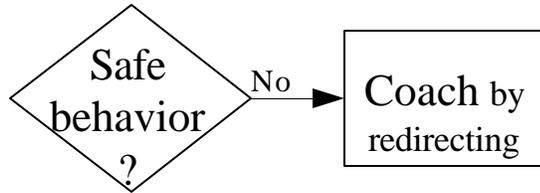
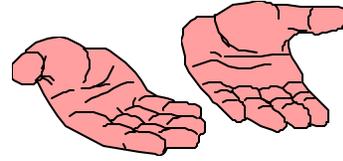
- Give praise such as “thanks”
- Explain what made this behavior right
- Encourage continued behavior

RE-DIRECTIVE FEEDBACK

- **Communicate** the behavior you saw
 - > “I noticed that ...
 - > Wait quietly for their response
- **Check** for understanding (ask questions)
 - > Ability or motivation problem?
 - > Use active listening
- **Coach** for improved performance
 - > Explain importance of safety
 - > Explain desired behavior
 - > Ask for input & involvement
 - > Talk about consequences
- **Contract** for safe behavior
 - > Agree on safe procedure
 - > Agree on next steps
 - > Set follow-up time
 - > Express confidence



COACHING at-risk behavior

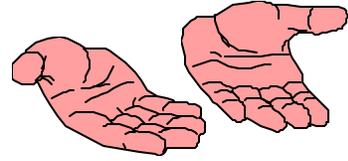


Shaping Behavior

Use the 4 C's for shaping behavior:

1. **C**ommunicate the behavior you saw
2. **C**heck for understanding of the job
3. **C**oach for improved performance
4. **C**ontract for safe behavior

COACHING at-risk behavior



1. **Communicate** the at-risk behavior you observed

A. Be specific and non-punishing (“I noticed that...”)

- make a factual statement (that can’t be debated)
- maintain or enhance self-esteem
- talk about behavior, not person
- avoid igniter words like “you”
- don’t lecture or preach

B. Be quiet and wait for their response

- pregnant pause
- listen and respond with empathy
- don’t argue



EMPATHY:

To identify with or show understanding of another persons feelings or position.

Avoid using @#\$%&+=*!
igniter words when coaching



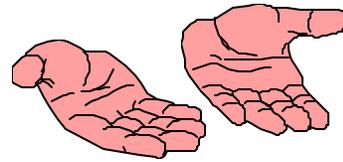
Positive Words

Cooperation
“Good job”
Confidence
“Looking good”
Together
Great
“Excellent work”
“Good thinking”
“Thank you”
“That’s right”
“You’re right”
“We need you”
“Do you know a better way?”
“I understand”
Let me help you
Recognition
“Any suggestions?”
“That’s the way”
Safe
“I like your idea”
“I’m concerned”
“I appreciate it”
“Thanks for helping me out”
“I observed this behavior...”
“Thanks for your leadership”
“What do you think?”

Igniter Words

“That’s wrong”
“Why don’t you...”
“That’s dumb”
Can’t
Change
Don’t
Reprimand
“You will...”
“When hell freezes over”
Jerk
Corrective action
“It’s your fault...”
Know-it-all
No or “No way”
“Not now, don’t have time...”
“Don’t tell me”
“You know better..”
Who cares
“You’re a walking safety hazard”
“I marked you”
“I scored you”
“I just do it”
“That was wrong”
“You did ...”

COACHING at-risk behavior

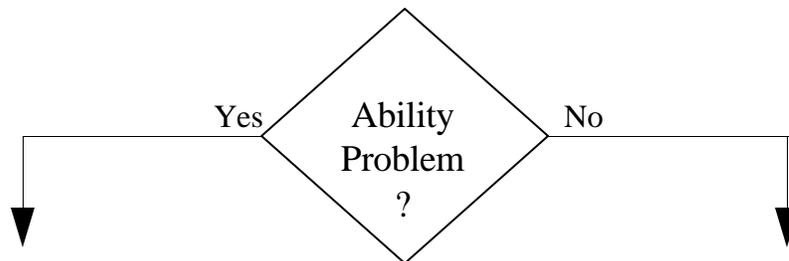


2. Check for understanding

A. Ask questions to diagnose motivation vs. ability problem

- “What could possibly happen by doing it this way?”
- “What is the safest way to do this job?”
- “What potential for injury is there with this method?”

- Seek to understand using active active listening skills
- Express sincere caring and concern



Effective Communication Skills

Good communication depends on

- _____ % verbal
- _____ % vocal
- _____ % visual

Use good eye communication, pleasing facial expressions, positive postures and inviting gestures to make your audience feel more comfortable.



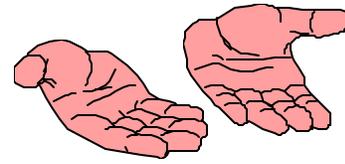
Active Listening

- Paraphrasing the content
- Reflecting implications
- Reflecting underlying feelings
- Inviting further contribution

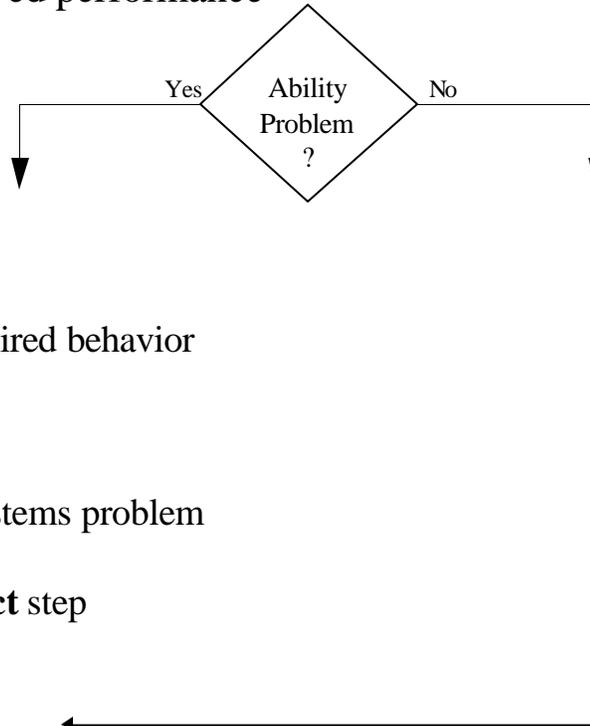
Non-verbal listening responses

Good	Poor

COACHING at-risk behavior



3. Coach for improved performance



Ability Problem

1. Explain the desired behavior
 - education
 - training
2. Identify the systems problem
3. Go to **Contract** step

Motivation Problem

1. Mutually agree that a problem exists
 - Get person to realize and admit the injury potential
 - Reinforce importance of working safely
 - Express the organization's values & commitment to safety
 - Express how important the individual is to the company
2. Move to problem solving
 - Ask for input and encourage involvement
 - focus on problem solving
 - "Is there a better way to do this job?"
 - "What do you recommend to prevent injury?"
 - "Could you help me figure out how to ..."

Strive for a win/win solution:

- **should** satisfy workers interests, and
- **must** satisfy acceptable safe work practices

If necessary, explain the consequences of continuing at-risk behavior

- organizational, departmental, personal (health, job, career)
- only as a last resort

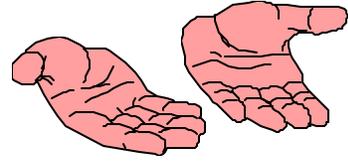
Tactics for Working Through Conflict



When the person I'm coaching ...	Tactics:
becomes defensive	<ul style="list-style-type: none"> • reflect feelings • use "I" vs. "you" language • focus on behavior, not the person
gets angry	<ul style="list-style-type: none"> • keep calm • don't argue • reflect feelings and empathize • don't personalize emotions • move to problem solving
blames others	<ul style="list-style-type: none"> • focus on what you observed • agree on desired outcomes • move to problem solving
won't budge on their position	<ul style="list-style-type: none"> • find common ground • focus on interests and desired outcome • move to problem solving
has a bad idea	<ul style="list-style-type: none"> • set limits and clarify expectations • ask for alternatives or variations • ask for assistance without taking responsibility • offer a carefully controlled pilot project
continues at-risk behavior	<ul style="list-style-type: none"> • follow-up • discuss consequences • set limits and clarify expectations • follow through with consequences

Think WIN / WIN !!!

COACHING at-risk behavior



4. Contract for safe behavior

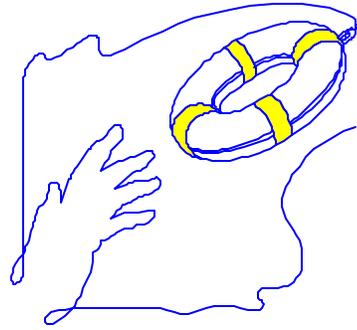
A. Agree on safe process

- Clarify exactly how the task should be accomplished
- Short-term (now and today)
- “Closing the deal”

B. Agree on next steps

- Longer-term action plan
- Set follow-up time
- Express confidence

More Coaching Tips and Techniques



When confronting others:

- Use “I” vs. YOU language
- Appeal to other’s interests and goals
- Reflect feelings or emotions that go beyond the words
- Set limits to clarify expectations
- Talk about the behavior, not the person
- Keep calm
- Don’t personalize emotion of others
- Move to problem solving
- Focus on interests rather than position
- Find common ground



Coaching and Feedback Exercises

The following scenarios are designed to help each coach gain experience and develop skill in the art of positive / effective feedback.

	1	2	3
Oldest	Coach	Scorer	Employee
Middle	Employee	Coach	Scorer
Youngest	Scorer	Employee	Coach

Coaching and Feedback Exercises

Observe one of your team members coaching the “employee”. Watch and listen to see how well they apply the techniques and check the boxes on the score card when then they apply them. Look for and check style points as well. Once they are done coaching, give them feedback about how they did by totalling their scores and discussing their performance with them.

Positive Reinforcement Score Card

R+	Technique	Style
Praise	<input type="checkbox"/> Praise with thanks or appreciation (4)	<input type="checkbox"/> friendly and sincere (2) <input type="checkbox"/> eye contact (2)
Explain	<input type="checkbox"/> Explain what made this behavior right or safe (4)	<input type="checkbox"/> feedback was relevant (2) <input type="checkbox"/> calm, not nervous (2)
Encourage	<input type="checkbox"/> Encourage continued behavior (2)	<input type="checkbox"/> built self-esteem beyond behavior (2)
SCORE =	/ 10	/ 10

Re-Directive Coaching Score Card

	Technique	Style
Communicate	<input type="checkbox"/> brief statement <input type="checkbox"/> pregnant pause	<input type="checkbox"/> specific & non-punishing <input type="checkbox"/> resisted filling silence w/words
Check	<input type="checkbox"/> asks open ended questions <input type="checkbox"/> determines motivation or ability	<input type="checkbox"/> resisted telling what’s wrong <input type="checkbox"/> used active listening
Coach	<input type="checkbox"/> mutually agree on problem <input type="checkbox"/> finds out why <input type="checkbox"/> invited involvement & solutions	<input type="checkbox"/> resisted giving solutions <input type="checkbox"/> kept calm & focused <input type="checkbox"/> employee talked more than coach
Contract	<input type="checkbox"/> agree on solution <input type="checkbox"/> set follow-up time <input type="checkbox"/> thanks for cooperation	<input type="checkbox"/> resisted taking responsibility <input type="checkbox"/> judged “win/win” by both participants <input type="checkbox"/> action steps are clear & reasonable
SCORE =	/ 10	/ 10

Coaching and Feedback Exercises

Observe one of your team members coaching the “employee”. Watch and listen to see how well they apply the techniques and check the boxes on the score card when then they apply them. Look for and check style points as well. Once they are done coaching, give them feedback about how they did by totalling their scores and discussing their performance with them.

Positive Reinforcement Score Card

R+	Technique	Style
Praise	<input type="checkbox"/> Praise with thanks or appreciation (4)	<input type="checkbox"/> friendly and sincere (2) <input type="checkbox"/> eye contact (2)
Explain	<input type="checkbox"/> Explain what made this behavior right or safe (4)	<input type="checkbox"/> feedback was relevant (2) <input type="checkbox"/> calm, not nervous (2)
Encourage	<input type="checkbox"/> Encourage continued behavior (2)	<input type="checkbox"/> built self-esteem beyond behavior (2)
SCORE =	/ 10	/ 10

Re-Directive Coaching Score Card

	Technique	Style
Communicate	<input type="checkbox"/> brief statement <input type="checkbox"/> pregnant pause	<input type="checkbox"/> specific & non-punishing <input type="checkbox"/> resisted filling silence w/words
Check	<input type="checkbox"/> asks open ended questions <input type="checkbox"/> determines motivation or ability	<input type="checkbox"/> resisted telling what’s wrong <input type="checkbox"/> used active listening
Coach	<input type="checkbox"/> mutually agree on problem <input type="checkbox"/> finds out why <input type="checkbox"/> invited involvement & solutions	<input type="checkbox"/> resisted giving solutions <input type="checkbox"/> kept calm & focused <input type="checkbox"/> employee talked more than coach
Contract	<input type="checkbox"/> agree on solution <input type="checkbox"/> set follow-up time <input type="checkbox"/> thanks for cooperation	<input type="checkbox"/> resisted taking responsibility <input type="checkbox"/> judged “win/win” by both participants <input type="checkbox"/> action steps are clear & reasonable
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Praise	<input type="checkbox"/> Praise with thanks or appreciation (4)	<input type="checkbox"/> friendly and sincere (2) <input type="checkbox"/> eye contact (2)
Explain	<input type="checkbox"/> Explain what made this behavior right or safe (4)	<input type="checkbox"/> feedback was relevant (2) <input type="checkbox"/> calm, not nervous (2)
Encourage	<input type="checkbox"/> Encourage continued behavior (2)	<input type="checkbox"/> built self-esteem beyond behavior (2)
SCORE =	/ 10	/ 10

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Notes:

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- ❑ Read these first

The books in this bibliography can be borrowed from BWC’s Division of Safety & Hygiene’s libraries. Also, there are many additional resources available on the topics of behavior-based safety, safety culture, coaching, observation and feedback, communication skills, and employee involvement. These resources include articles, videotapes, and web sites. Please contact the libraries for information. Call 800-644-6292 or e-mail library@bwc.state.oh.us.