How to Overcome Employee Resistance to Behavioral-Based Safety
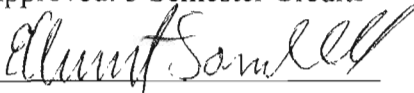
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ABSTRACT

Any organization in business today is at risk for accidental loss. While types of accidental losses vary, a large loss potential that many organizations face is employee injury and illness. Employee injuries and illnesses have negative consequences for both the affected employee as well as their employer. Besides employee pain and suffering work place injury and illness can pose significant monetary consequences for both the employee and employer. Employees can experience large losses in earning potential due to work place injury and illness that keep them off of work for extended periods of time. Employers also have the potential for large monetary losses as a result of the direct and indirect costs associated with employee injury and illness.

Because of the negative consequences associated with work place injury and illness organizations have aggressively worked toward reducing those losses. One approach that many organizations have successfully used to reduce work place injury and

illness is Behavioral Based Safety (BBS). BBS focuses on what people do, analyzes why they do it, and then applies a research-supported intervention strategy to improve what people do.

The primary method used to accomplish this study was to review pertinent literature of what companies have done to successfully implement BBS programs, and where known failure points lie within BBS programs. Additionally, an employee perception survey was utilized in an effort to gain understanding regarding why a previous BBS program failed at the researched paper mill in Wisconsin.

The goal of this study was to determine why a previous BBS program failed at the researched paper mill in the early 1990's, and to understand why employees within many organizations have historically resisted planned change and what management needs to do to overcome this resistance.

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Chapter I: Introduction

The researcher is currently employed by a large paper company which has several paper mill divisions throughout the United States and Canada. The researched paper, mill as well as most other paper mill divisions within the organization consist of unionized workforces. This research was conducted at a mill located in Wisconsin where light-weight coated paper is manufactured. The researched mill employs approximately 329 hourly employees who are segregated into six local unions. The mill also employs approximately 80 salary employees. In an effort to achieve the mill vision of zero injuries, the mill needs to explore continuous improvement efforts in order to eliminate employee injuries. One tool that many other divisions have been successfully using to achieve their safety goals is Behavior Based Safety (BBS). Behavior Based Safety requires all employees to get involved with peer to peer observation and correction of substandard acts. With BBS, employees are trained to recognize at-risk behaviors and openly share feedback with a coworker.

One could presume that if this Wisconsin mill could introduce BBS into the mill, they could greatly reduce the number of injuries; however, the mere discussion of BBS has brought great resistance from employees. While many arguments have been made as to why BBS won't work, one cannot truly understand the reasons employees (hourly & management) contest BBS. If one was able to find out why employees are resisting BBS, it will help the organizational leaders design a BBS program that incorporates the concerns and challenges the employees express to increase the chances of its success.

From the 1980's through the mid 1990's, the mill practiced the DuPont Stop Program, which is one style of BBS. The program requirements called for management employees to observe others while they performed job tasks throughout the mill. After the observation was

complete, feedback was given to the employee based on the observers' findings. The program was successfully sustained for several years; however, employee involvement stalled and the program was ultimately abandoned.

Statement of the Problem

At the researched paper mill division in Wisconsin, management and hourly employees have resisted Behavior Based Safety (BBS). This resistance keeps the mill from successfully implementing a BBS program; therefore, this could have a negative affect on the mill's injury experience.

Purpose of the Study

The purpose of this study was to determine how the researched paper mill in Wisconsin could successfully implement a behavioral based safety program.

Goals of the Study

There are two primary goals of this study:

1. Determine why a previous BBS program failed at the mill in the early 1990's.

2. Understand why employees within many organizations have historically resisted BBS and other forms of planned change, and what management needs to do to overcome this resistance.

Assumptions of the Study

The assumption has been made that a successful BBS program will significantly increase employee involvement and awareness around safety; thus, helping the mill achieve their vision of zero injuries. This assumption was made by the researched mill's leadership team based on feedback that other paper mills have seen improved safety performance as results of BBS programs.

Definition of Terms

  Behavior Based Safety (BBS). The science of behavior change to real world problems. BBS focuses on what people do, analyzes why they do it, and then applies a research-supported intervention strategy to improve what people do.

Limitations of the Study

  The perception survey for this study will be limited to the researched mill facility only. Because the last BBS program ended in the 1990's, some of the surveys questions will not apply to all employees completing the survey, as a number of current employees were not employed at the mill during this time. Also, because many employees have retired since the last BBS program valuable information has been lost which may limit the perception survey findings. Another limitation to this study is that the results are relevant to the researched paper mill and not necessarily transferrable to other organizations.

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Chapter II: Literature Review

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Introduction

  This chapter will highlight some research as it relates to BBS. The purpose of this literature review is two fold. First the researcher wants to understand why employees resist BBS, and what approach companies have used in the past to counter this resistance. Secondly, the researcher wants to understand why a previous BBS program failed at the researched paper

mill in the 1990's.   The researcher will also discuss literature on employee resistance to planned change and what organizational leaders must do to overcome the resistance.

Assessing the Positives of Behavior Based Safety Programs

Thousands of deaths, injuries and illnesses occur because of occupational accidents each year in the United States. In 2006 alone the United States experienced 5,804 work related fatalities and 4.1 million nonfatal occupational injuries and illness (Bureau of Labor Statistics, U.S Department of Labor, 2007). This injury and fatality experience has caused many organizations to rigorously work toward preventing workplace accidents. Many organizations throughout the country have significantly reduced their injury experience through the successful implementation of a BBS program (Geller, 2009). The behavior-based approach to safety was founded on behavioral science and researched by B.F. Skinner in the 1950's. In the late 1970's and 1980's this approach was applied to safety programs within industry (Burmahl, 1998).

While BBS programs vary, most share a few common attributes that aim to prevent injuries in the work place (Sulzer-Azaroff & Austin, 2000). These attributes include:

- Identifying behaviors that impact safety

- Defining behaviors to measure them reliably

- Developing and implementing mechanisms for measuring behaviors in order to determine their current status and set goals

- Providing feedback

- Reinforcing progress

Companies, including Goodyear Tire & Rubber Co. and PPG Industries, are achieving success with the BBS concepts (Atkinson, 2000). Atkinson (2000) also indicated one such company (Southern Fineblanking) had observed a 33% reduction in injuries and the average cost of each injury had decreased from $1,400 to under $500 after just one year of practicing BBS. Proctor & Gamble deployed BBS globally in the early 1980's and has stated that it has been a critical factor in reducing their incident rate from 7.5 to 0.9 during that time (Fulwiler, 2000). Sulzer-Azaroff and Austin (2000) performed research on BBS effectiveness in several businesses across various industries. They were able to confirm that 32 out of 33 companies reviewed reported a reduction in injuries as a result of BBS.

It clear to see that when BBS works for an organization workers compensation costs begin to decline and incidents become less frequent and less severe (Hidley, 1998). Besides the injury reduction and monetary benefits of BBS there are other positive components that any company can benefit from. BBS empowers employees to contribute to the safety program, which builds a sense of pride and caring in workers. (Garis, 1998).

BBS Advantages. BBS has many unique advantages over more traditional safety management approaches. These advantages include individual employee involvement, bringing safety involvement out to places where the problems occur, teaching organizational leaders behavior change techniques specific to their organization structure and creating organization change interventions that are cost effective, easy to administer, and easily measurable. Other advantages to BBS, some similar and some unique, have been found by other researchers. Some of these advantages outlined by Donald J. Eckenfelder (2003) include:

- The focus is on the people/human side
- Safe and unsafe behaviors are identified

- There is an organized process to encourage correct behaviors and discourage the wrong or potentially destructive behaviors

- Involvement of many employees is encouraged and ingrained in the process

- Management has shown they care because they've spent the money it takes to implement BBS

- Passion and desire are essential to drive any behavioral or social change process

- The BBS process inherently involves the first level of supervision to a significant extent

It's these advantages that take an average safety program and turn it into a world-class program that greatly improves performance by driving down injuries (Geller, Lehman, & Kalsher, 1989).

Adding Value to an Organization Through BBS. John H. Hidley (1998) found that when BBS works for an organization it can add value to an organization across several dimensions. An effective BBS program:

- Positively integrates safety with productivity and quality

- Improves employee morale as they see fruition of their efforts

- Shows an Incident-frequency rate decline

- Increases employee involvement in safety

This performance improvement comes through increased employee involvement and ownership in a company's BBS program, as well as, strong leadership at all levels (DePasquale & Geller, 1999).

Understanding Behavior Based Safety Failure Points

While the success of BBS has helped many organizations reduce employee injuries, the implementation of this type of program is not easy. Studies have shown that many companies

fail to successfully implement BBS within their organization. While these failure points can vary from company to company, DePasquale & Geller (1999) found that BBS will most likely fail in any organization for the following reasons:

- Employee training was not effective
- Trust in management abilities does not exist
- There was no accountability built into the process
- Employees don't fully buy into the program

Other failure points as indicated by Donald J. Eckenfelder (2003) include:

- Employees feel manipulated
- The results don't meet the expectations
- The cost are too high
- BBS efforts blur the focus of a company's loss prevention effort
- BBS isolates instead of integrating safety into the management process

Mathis (2005) identified more failure points which include:

- Behavior targets that are not expertly identified
- Feedback not given effectively
- Managers are kept distanced from the BBS process in the name of employee ownership

Another failure point that many organizations have experienced is idealism; which is believing that BBS can replace all other safety efforts within the organization (Mathis, 2009). Mathis (2009) captured yet more failure points which were found to be common among industries:

- Punishing employees early in the implementation process in an effort to shape behaviors

- Not including management in the behavior change exercises

- Failure to involve unions in the decisions and implementation of the BBS implementation plan

- Not being flexible to make changes in the process as you progress through the implementation of BBS

Critical Factors to Successfully Implementing BBS

John H. Hidley (1998) found that there are seven factors critical to the success of BBS. Ignoring any one of these seven critical factors can damage an organizations success or even lead to complete program failure. These seven factors include:

1. Using a process blue print

2. Emphasizingth Communication to gain employee buy-in

3. Demonstrating leadership (both management and labor)

4. Ensuring implementation team competence

5. Using action-oriented training

6. Using data to ensure continuous improvement

7. Providing technical resources

For each factor listed above there are several failure points that organizations must be aware of. In regards to using a process blue print; an organization must have a well developed blueprint for the entire implementation process, and it must be followed meticulously. Deviating from the organizations plan shows a lack of discipline, which could cause failure (Hidley, 1998). Emphasizing communication & buy-in relates to how well the change effort is marketed to

employees within the organization. Communication leads to understanding and understanding

the BBS process is critical to employee buy-in. Many companies fail at BBS if people don't buy-

in and become actively involved in the process (Hidley, 1998).

Leadership is another key factor that Hidley (1998) found to be imperative. Employees

who have positive feelings toward their leader are more likely to buy into their philosophies. As

such, leadership quality has been found to be related to occupational safety improvements

(Christain, Bradley, Wallace & Burke, 2009).

To avoid failure and ensure success with BBS leadership Hidley (1998) states that leaders from

both management and labor must:

- Set the direction of change

- Keep the need for change in the forefront

- Enable necessary shifts in power

- Lead by example

- Encourage and sustain a high level of commitment

- Provide direction without interfering with employee involvement

- Identify goals and provide resources to accomplish those goals

- Evaluate progress and identify new targets

In order to ensure that the implementation team is competent an organization needs to

ensure that they have done an effective job in recruiting and training members for BBS

implementation steering committee. A committee/team must have a strong leader, close working

relationship with all managers, a sense of pride and an overall commitment to the plan's success

(Hidley, 1998). The use of action-oriented training refers to training that is hands on and gives

trainees just-in-time feedback; which is important while learning the necessary skill sets for effective BBS interventions.

Using data for continuous improvement comes into play when organizations want to measure their processes and results. By effectively analyzing data at each stage of the BBS implementation stage an organization can make the necessary changes, thus preventing program failures (Hidley, 1998).

Having the appropriate technical resources while implementing a BBS is yet another key factor in BBS success. Appropriate technical resources provide real solutions for company specific needs. If an organization does not have the appropriate resources management could falter in some of their decision making which could lead to program failure (Hidley, 1998).

Fulwiler (2000) found that for any BBS program to be systematic and sustainable the program must initially focus on managers and their behaviors and then flow to employees. Fulwiler (2000) also identified eight elements that are key when building a comprehensive BBS program. These elements include:

- Management commitment and expectations

- Employee involvement

- Goal setting and action planning

- Technical and regulatory requirements

- Job specific safe operating procedures

- Training and resource capability

- Behavior observation and feedback

- Performance tracking and accountability

Performance Improvement Through Feedback. A component analysis of a BBS program conducted by Komaki, Heinzmann and Lawson (1980) indicated that when employees receive training, verbal explanations and written rules, safety performance improved slightly. However, when performance feedback was provided performance significantly improved. The results of this analysis prove that while training is essential to any safety program, safety training alone is inadequate. Performance feedback is essential for performance improvement, to be effective and readily accepted by employees (Komaki, Heinzmann & Lawson, 1980).

Another study was conducted by Chhokar and Wallin (1984) related to the effect of feedback frequency on performance. Chhokar and Wallin (1984) found that safety performance with feedback enhances the external validity of feedback being useful in improving performance. Chhokar and Wallin also indicated that training employees, monitoring there performance and providing feedback is a more effective way of enhancing safety performance compared to traditional approaches like posters, slogans or conducting standardized safety audits.

Employee Resistance to Behavior Based Safety in Union Environments

One road block to implementing a BBS program is the lack of employee support. This form of employee push-back can be more prevalent in a union shop as apposed to a non-union shop. This may be due to the fact that several national union officers throughout the U.S. are resisting the BBS management approach (Springer & Hodgson, 1997). Some union officials feel that BBS puts too much responsibility on the workers while taking responsibility of safety away from management (Frederick & Lessin, 2000). Many of the union officials that are leading the revolt against BBS however, have not spent time close to the process on the shop floor, thus they are basing their prejudice against BBS on second-hand information (Springer & Hodgson, 1997).

Understanding Why Some Unions Won't Buy Into BBS. The BBS process allows the union workers to look out for one another to prevent injury. This very process cuts to the heart of what unions have fought for throughout the years. Since the industrial revolution in America, unions have fought hard to set safety standards to protect their own against injury and illness (Spring & Hodgson, 1997). Over the last several years however, companies have experienced lay-offs in an environment where productivity has been pressured to improve while costs have been cut. In this harsh environment unions have been speaking out against BBS attempts because it seems to shift safety responsibilities solely onto the workers (McGuire, 2010).

Regardless of the reasons, it can be difficult to understand why these same unions, who where key in focusing attention on worker's safety, won't adopt BBS in an effort to safeguard themselves and their members to the highest level possible. To fully understand why some unions have resisted BBS it might be helpful to look back in history. "Under the old paradigm, both management and labor focused on machinery and methods (rules, procedures and policies). Interventions in these two areas became the standard way to improve safety. For unions, the struggle to improve machinery and methods spanned more than a century. The battle was so difficult that some people became attached to the struggle itself. During those years, unions and companies (their safety leaders) actually developed paradigms that excluded any type of intervention except those involving machinery and methods" (Springer & Hodgson, 1997, p. 3). It is apparent that one of the labor movements greatest contributions is the way they have improved worker's safety; however, it may be time to change the focus from machinery and methods (i.e. conditions) to worker behaviors.

Another consideration to why unions resist BBS could be that companies have historically used punishment to manage workplace safety. Springer & Hodgson (1997) found that in the past companies used punishment to manage workforce safety behaviors, which produced many unintended negative results. It's because of this negative relationships between work place safety and employee punishment over the years that unions and their members have resisted BBS (Springer & Hodgson).

Overcoming the BBS Road Blocks

It is apparent that successfully implementing a BBS program is a difficult task. It takes a strong management team with strong leadership capabilities and an employee population willing to get actively involved with their safety process to make implementation successfull (DePasquale & Geller, 1999). BBS must be integrated into the overall approach to health and safety, which must be integrated into the organization's entire business process (Fulwiler, 2000). With this in mind, companies need to be strategic on when and how they decide to implement a BBS program. They need to understand what it takes to be successful, and where potential failure points lie within their organization. One can assume that if an organization understands where their possible failure points exist, and develop plans to counter them, they stand a better chance at successfully implementing a BBS program.

Overcoming Failure Points within Organizational Leadership and BBS. One major failure point is weak organizational leadership. It is imperative that an organization has a strong management team that supports the BBS methodology. If the management team within an organization is not fully on board with the process, it will surely fail (Hidley, 1998). It is also essential in union shops that union leaders buy into and support BBS initiatives. Leaders, whether management or union, set the pace for change, help employees understand the need for

change, enable others to get involved and lead by example (Hidley, 1998). Informal leaders

within the organization must also be identified and fully utilized. Informal leaders are

employees from the rank and file that are well recognized and respected by the workforce.

Informal leaders play an important role in any type of planned change and can help positively

influence their peers, which improves employee buy-in (Borbidge, 2009). To ensure employee

buy-in at any organization, leadership must show their competence and commitment to move an

organization towards its goal of successfully implementing a BBS program.

Employee Engagement & Behavioral Based Safety

Employers need to know that their employees will buy into and continuously support

involvement in BBS. One can presume that people will do what makes logical sense; therefore,

if employees believe BBS makes sense, it will greatly increase the likelihood of implementing a

successful BBS program (Hidley, 1998). BBS is focused around employee engagement and

support, so if employees are not participating the program will certainly fail. The goal of BBS is

to change cultural attitudes in the workplace and build a sense of pride around safety. Therefore,

companies should focus on positively reinforcing safe behaviors instead of focusing on

accidents, failures, punishment and managerial type goals (Garis, 1998).

One issue that leads to lack of employee engagement is poor employee training as it

relates to BBS. Training provides a path to succeed; therefore, employers need to build the

knowledge and capabilities of all employees ranging from the plant manger to each employee

(Fulwiler, 2000). If employees are not properly trained on all the essential BBS tools they will

undoubtedly resist the process (Hidley, 1998, DePasquale & Geller, 1999). Usually, training is

an employee's first exposure to BBS. Therefore, the quality and relevance of training is a key

determining factor in the frequency and quality of involvement that an employee will have in BBS (DePasquale & Geller, 1999).

As discussed earlier the use of action-oriented training has been found to be effective in building employee skill and confidence with BBS. Action based training refers to hands on training in a controlled environment where a trainer gives trainees immediate feedback. Immediate feedback is critical while employees work to gain the skill sets for effective BBS interventions.

Understanding Employee Resistance to Planned Change

To fully understand why employees have resisted BBS in several organizations it is important to understand why employees resist planned change. Bruckman (2008) explains many reasons for resistance to planned change. These reasons include:

- It threatens the status quo

- It increases fear and the anxiety of real or imagined consequences

- It threatens personal security and confidence in the ability to perform

- It threatens the way people make sense of the world

- People distrust or have past resentment toward those leading change

- Someone having a different understanding or assessment of the situation

Also, as explained by Bruckman (2008), multiple changes within an organization in a short period of time will lead to a defensive reaction by employees. Bruckman (2008) also indicated that if employees distrust management, or have had negative experiences with managers in the past they are less likely to buy into the change.

Other bodies of research indicate that employee resistance to planned change is because employees resist the unknown (Dent & Goldberg, 1999). Peter de Jager (2001) feels that

employees resist change because they are unsure if the intended changes will remedy the deficiency that exits. Dent & Goldberg (1999) also found that resistance to planned change could be attributed to the fact that management ideas don't seem feasible to employees and the employees own self interests don't always align with management visions.

Overcoming Resistance to Change

Whatever the reasons are for resistance to planned change, companies need to be able to counter the resistance if they want to implement the intended change. The best way to overcome resistance to organizational change is through strong management leadership within an organization (Bruckman, 2008). A strong leadership team that works with the group, confronts the fear of change, considers the group's perspective, builds trust, avoids manipulating the work group, is willing to compromise and allows the group to take ownership in the change process will have the best chance to implement change (Bruckman, 2008).

Other ways to overcome employee resistance to change is to involve employees in the process. When employees are not involved they feel like they are being forced to follow a process they had no involvement in (Jager, 2001). John Ely (2008) found that to overcome change companies must:

- Emphasize the employee's role in the change

- Invest in training

- Practice and reinforce training

- Set an example for employees to follow

- Create a positive and supportive environment

These are key aspects that companies must pay attention to during times of change in an effort to increase the likelihood of their success. BBS is only one example of a planned change, and

while it is intended to improve worker safety, it is imperative that organizational leaders understand that employees will generally resist the change. Understanding why employees resist this change will help organizational leaders better prepare themselves as they wage through this very important change process.

Summary

It has been determined by several BBS experts that practicing BBS can help lead to reduced workplace injuries in the workplace. This injury improvement; however, does not come easy as many organizations have experienced failure with BBS. To counter this employee resistance and ensure BBS program success organizational leader must ensure they address all identified road blocks. While there were several roadblocks identified in this literature review, a few key factors seemed to repeat themselves. These repeatedly identified factors include:

- Strong management and employee leadership

- Effective training programs

- Program communication

- Employee buy-in and ownership

- Employee involvement

One can assume that if an organization can effectively address the above issues they are better positioned to successfully counter employee resistance and implement a BBS program that will help them achieve positive results.

Chapter III: Methodology

The researched paper mill has experienced employee resistance to a previous BBS program. This resistance keeps the mill from successfully implementing a BBS program; therefore, the mill's injury experience has suffered. This chapter discusses the methodology used to conduct a research study within the researched paper mill related to BBS. The methodology review will include the subject selection and description, instrumentation used in the study, data collection procedures, data analysis and study limitations.

Subject Selection and Description

Because BBS affects all employees at an organization the sample population will include both union and non-union employees at the researched paper mill. The goal of the researcher was to survey approximately 50% of the management workforce, which is a total of 40 salary employees. All salary employees with direct reports; as well as, a random selection of others were surveyed to make up the management population of the study. To obtain the random sample, the researcher picked one person from each department until the goal of 40 salary non-exempt employees was fulfilled. Picking one salary person in each department randomly was done by printing off department rosters and selecting a person to complete the survey.

To obtain a sufficient sample size of the unionized workforce as many employees as possible were asked to complete the survey during quarterly safety meetings and one-on-one interactions.

Instrumentation

A 12 question survey specific to BBS methodology was developed by using the experiences that the researched paper mill had with BBS. The questions in the survey will

consitst of ordered answer choices with qualititave scale answers. The survey questions specific

to the researched paper mill were developed in an effort to obtain information on why BBS

efforts failed in the past whether or not employees understand the benefits of BBS, whether or

not employees support BBS practices, and to discover what negative perceptions exists around

BBS. Other survey questions will be specific to the psychology of employee interventions, and

peer-to-peer feedback methodology. Below is a summary of the 12 questions used in the survey:

1. Are you hourly or salary?

2. Do you feel comfortable approaching and/or correcting another employee while they are performing an unsafe act?

3. How often do coworkers approach and/or correct you while performing an unsafe act?

4. How often do you approach and/or correct a coworker while they perform unsafe acts?

5. How often has your supervisor or another management person approached and/or corrected you while performing an unsafe act?

6. How often has your supervisor or another management person acknowledged you for performing work safely?

7. How important is it to you that workers look out for each other's safety?

8. Have you ever received training on how to approach and correct a coworker who is performing an unsafe act?

9. Would a program that empowers employees to approach one another and positively correct unsafe acts improve our mill's safety performance?

10. In the early 1990's the Biron Mill used the STOP program in an effort to improve safety behaviors. Did the STOP program lead to improved safety behaviors?

11. While the STOP program was being introduced at Biron how involved were employees
    in the program development?

12. While the STOP program was being used at Biron how often were the results
    presented/communicated to employees?

Data Collection Procedures

The 12 question survey was administered randomly to union employees in two ways.
First, employees were asked to stay after a quarterly department safety meeting to participate in a
survey. The employees received background on the project and instructions on how to complete
the survey. The researcher then left the room while the employees completed the survey. When
an employee completed the survey they placed it in a folder which contained all other surveys;
which helped reaffirm that the results would stay anonymous. Secondly, the researcher
approached employees one-on-one, provided details of the project, gave instructions on how to
complete the survey and then left a survey with them to complete. The employee's responses
were kept anonymous in an effort to get the most honest and valid feedback.

As explained above salary employees were randomly selected from departmental rosters
until the goal of 40 employees was reached. The salary person selected was then personally
contacted, given the background of the research project, instructions on how to complete the
survey and the survey documentation.

Data Analysis

Once the data was collected each survey question answer was manually entered into a
Mini Tab spreadsheet. From there the question answers where organized into a bar graph and
perato charts to show the number of responses for each answer. This cross tab analysis helped to
identify result differences between union and management employee. Lastly the results from all

questions were analyzed and broken down into percentages based on how the population answered each question.

Limitations

The perception survey for this study will be limited to the researched mill facility only. Because the last BBS program ended in the 1990's, some of the surveys questions will not apply to all employees completing the survey, as a number of current employees were not employed at the mill during this time. Also, many employees have retired since the last BBS program, so valuable information has been lost which may limit the perception survey findings. Another limitation to this study is that the results are relevant to the researched paper mill and not necessarily transferrable to other organizations.

Chapter IV: Survey Results

Summary of Methods Used

A 12 question survey specific to BBS methodology was given to a random sample of hourly and salary employees at the researched paper mill. The perception survey was given in an effort to gain a better understanding of the BBS research questions discussed in chapter 1. These research questions were:

1. Determine why a previous BBS program failed at the researched paper mill in the early 1990's

2. Understand why employees within many organizations have historically resisted BBS and other forms of planned change, and what management needs to do to overcome this resistance.

Results of Question 1:

Based on the survey results one can see that a previous BBS program (STOP) failed at the mill in the early 1990's. Figure 10 indicates that nearly all survey respondents felt that the STOP program practiced at the researched paper mill was not successful in improving employee behaviors. While we know the BBS program failed, we must further explore the factors that lead to this BBS program failure in order to answer the first research question listed above. After researching several BBS program failure points in chapter 2 it is easy to see the shortcomings of the STOP program based on the results from the perception survey.

First, figure 8 shows that the researched paper mill missed a critical success factor by not providing proper training. While some salary employees indicated that they have received training on addressing at risk behaviors the overwhelming majority of hourly employees

surveyed had never received this training. Employees must have the necessary program training

or failure is inevitable much like the researched paper mill experienced with their BBS program.

Next, we can see that employee involvement was neglected as figure 11 indicates that

employees were not involved with the STOP program development. As we learned in chapter 2

employees are more likely to resist any program or planned change if they are not involved in the

program development. A big reason for the STOP program's failure at the researched paper mill

was because employees were not involved in the program development. Another noteworthy

opportunity that was missed by the researched paper mill is related to communication. Figure 12

points out that program results were not communicated to employees while the STOP program

was being utilized, so employees had no way of knowing if their hard work was paying off.

Because these program outcomes were never communicated it greatly contributed to the STOP

program's failure.

Results of Questions 2

The second research question discussed in chapter 1 was related to employee resistance

and how companies can overcome that resistance to BBS and other forms of planned changed.

The results of the perception survey along with the findings in chapter 2 indicate that the

researched paper mill could overcome this resistance had they addressed a few issues.

First, if the researched paper mill had strong leadership around BBS employees would be

more likely to buy into the program. Figure 5 shows that supervisors and managers

(organizational leaders) rarely approach and correct employees for performing substandard acts.

Figure 6 also confirms that this same group of leaders rarely acknowledge employees for

performing work safely. It is crucial that organization leaders set the pace for change and lead

by example. Because employees don't see their leaders addressing at risk behaviors or

acknowledging good behaviors they were not likely to buy into this process. To overcome the resistance to BBS practices the organizational leaders at the researched paper mill must lead by example in an effort to gain buy-in with their employees.

Next, the researched paper mill needs to commit resources to build and deliver an effective training program for BBS. As we learned in chapter 2 training is a critical success factoring in BBS; therefore, one can assume if the researched paper mill would provide effective training they could counter some of the resistance they have faced over the years. The last issue that must be addressed to counter employee resistance is effective communication plans. This communication includes communicating to employees about program development and implementation, as well as program results. If the researched paper mill wants their employees to buy into the program they must communicate all facets of the BBS program, especially implementation plans and program results.
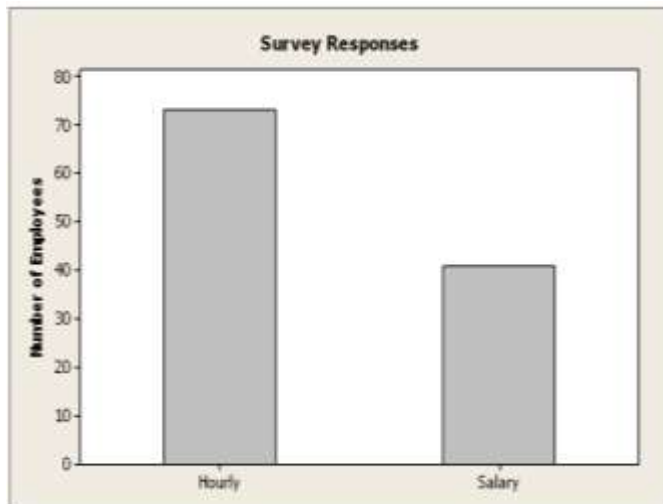
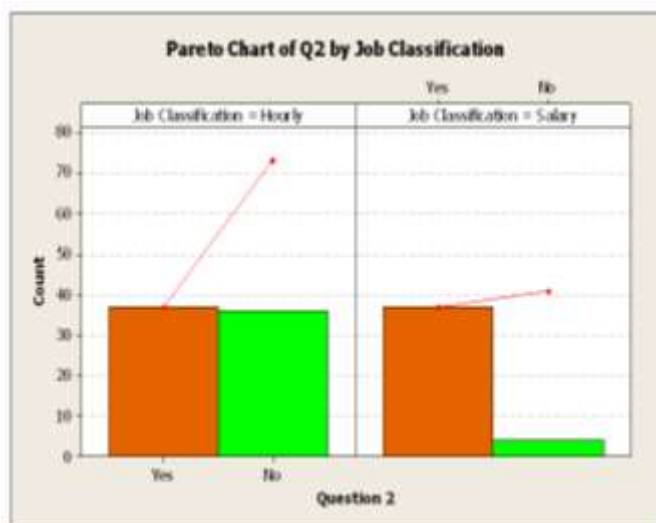*Figure 1.* Bar graph of survey response demographic

Figure 2. Pareto Chart of Question 2: Do you feel comfortable approaching and/or correcting

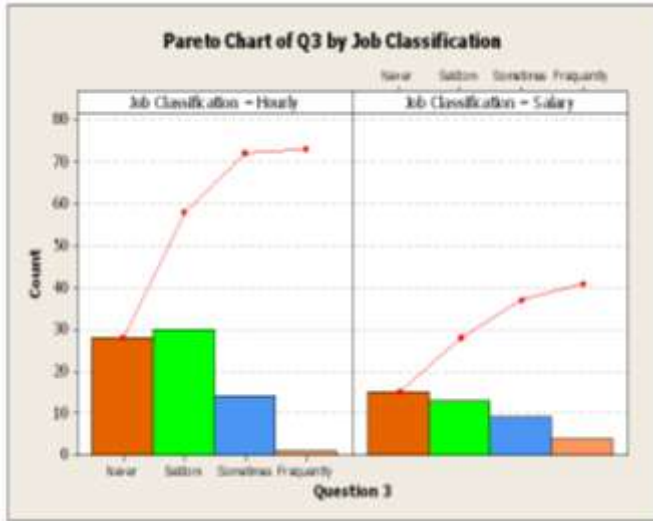another employee while they are performing an unsafe act?

Figure 3. Pareto Chart of Question 3: How often do coworkers approach and/or correct you while performing an unsafe act?
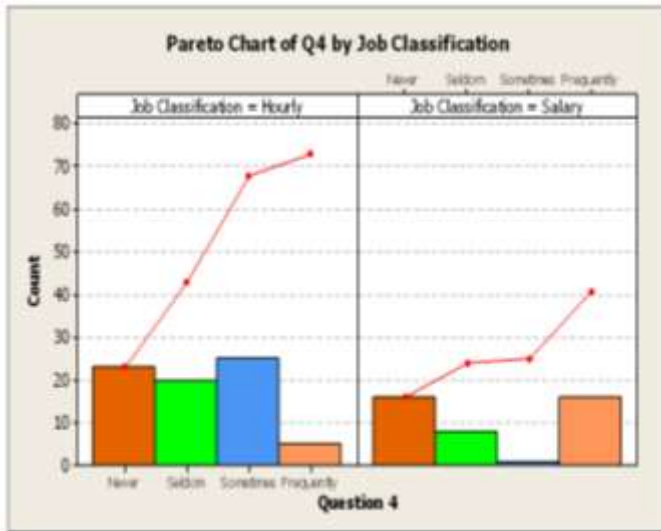

Figure 4. Pareto Chart of Question 4: How often do you approach and/or correct a coworker while they perform unsafe acts?
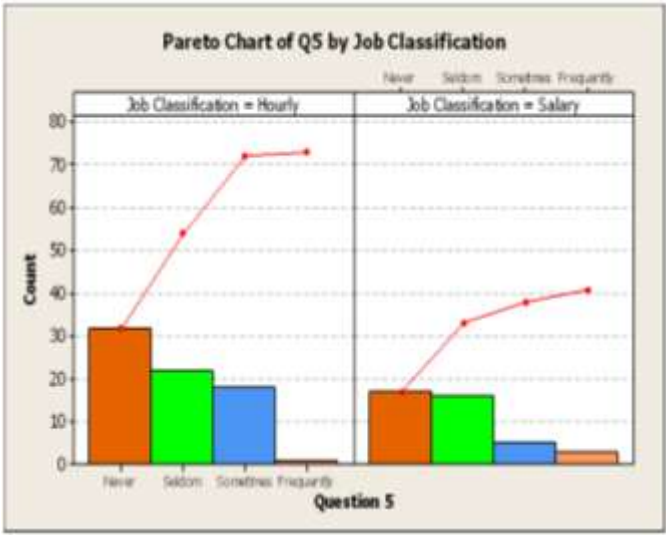
Figure 5. Pareto Chart of Question 5: How often has your supervisor or another management

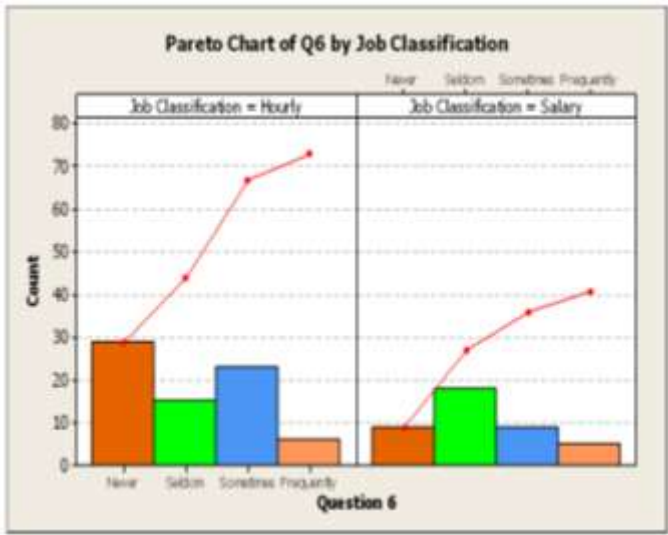person approached and/or corrected you while performing an unsafe act?

Figure 6. Pareto Chart of Question 6: How often has your supervisor or another management

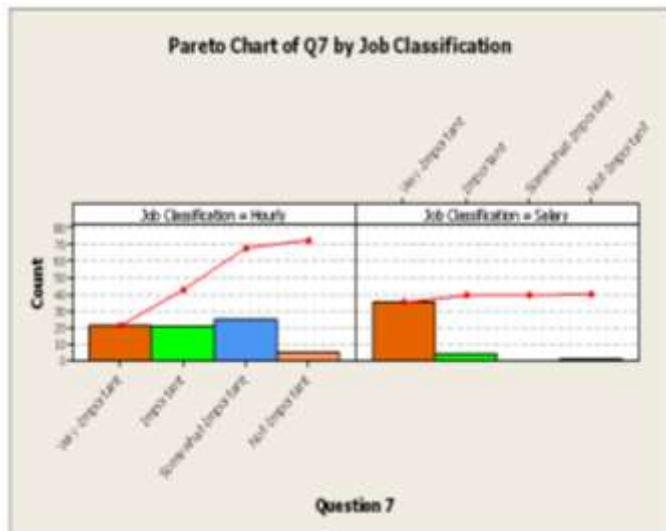person acknowledged you for performing work safely?

Figure 7. Pareto Chart of Question 7: How important is it to you that workers look out for each other's safety?
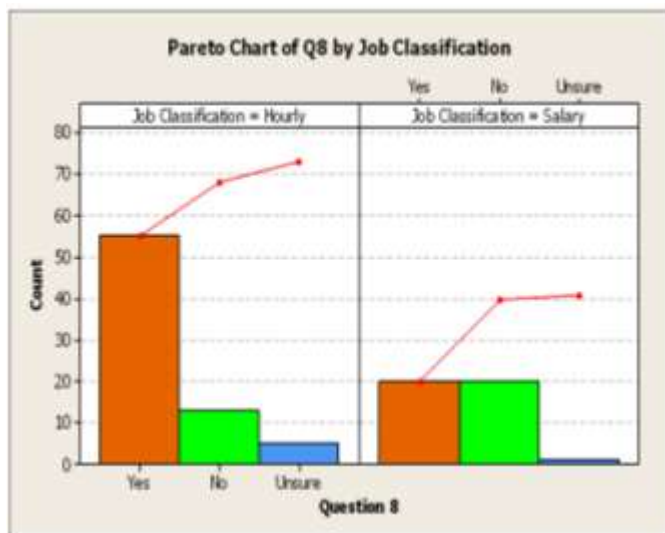

Figure 8. Pareto Chart of Question 8: Have you ever received training on how to approach and correct a coworker who is performing an unsafe act?
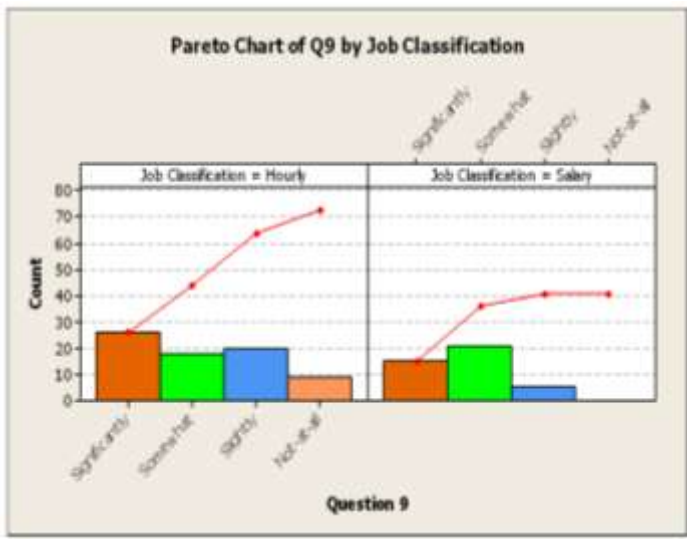
Figure 9. Pareto Chart of Question 9: Would a program that empowers employees to approach

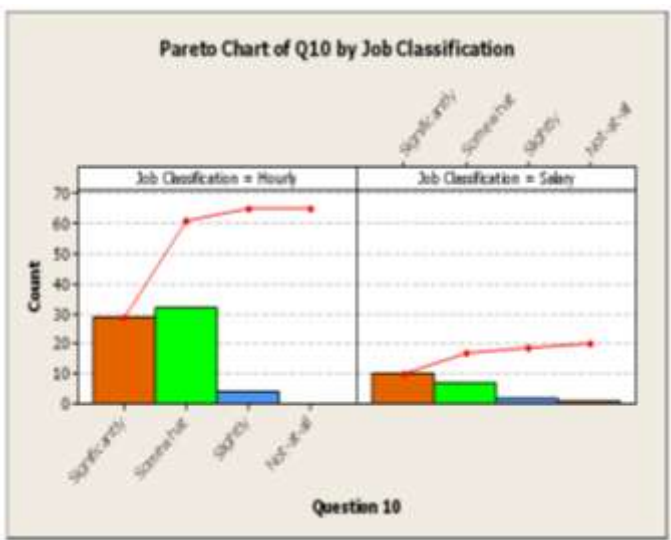one another and positively correct unsafe acts improve our mill's safety performance?

Figure 10. Pareto Chart of Question 10: In the early 1990's the mill used the STOP program in

an effort to improve safety behaviors. Did the STOP program lead to improved safety

behaviors?
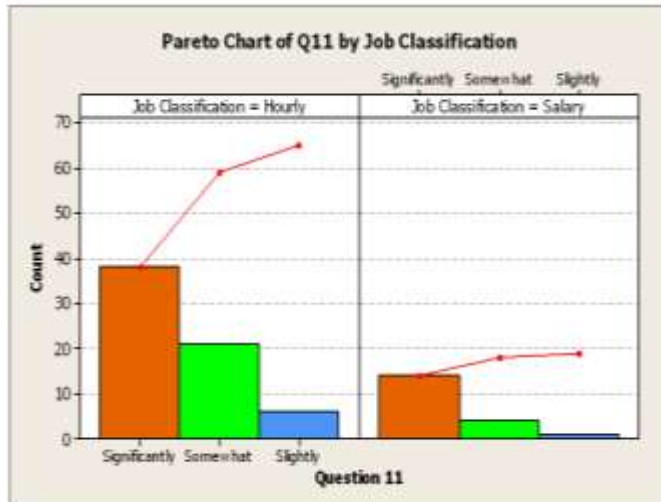
Figure11. Pareto Chart of Question 11: While the STOP program was being introduced at

Biron how involved were employees in the program development?
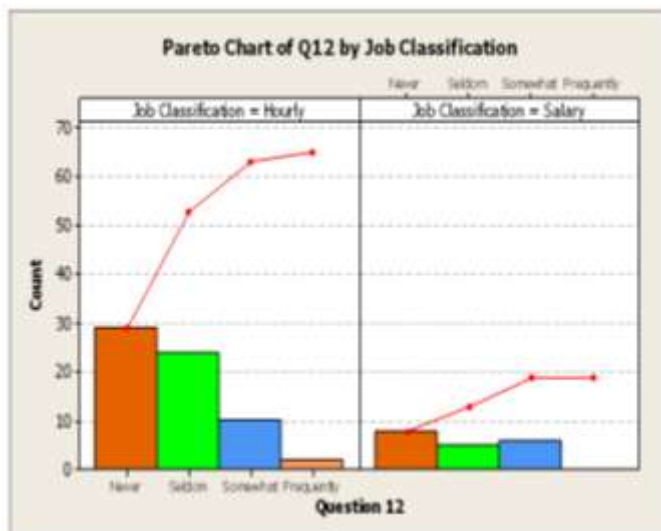
Figure 12. Pareto Chart of Question 12: While the STOP program was being used at the mill

how often were the results presented/communicated to employees?

Chapter V: Discussion

Summary

The purpose of this study was to determine how the researched paper mill in Wisconsin could successfully implement a behavioral based safety program. At this particular paper mill, management and hourly employees have resisted BBS efforts in the past. This resistance keeps the mill from successfully implementing a BBS program; therefore, this could have a negative affect on the mill's injury experience.

In the chapters preceding the researcher has completed a formal literature review; which highlights some research related to successfully implementing BBS programs. The researcher also conducted a study at the researched paper mill using an employee perception survey. The survey questions were specific to the researched paper mill's experience with BBS in the past, as well as genreal BBS methodology. The goal of this study was to gain a better understanding around the BBS research questions explored in the literature review.   These research questions include information about:

1. Determining why a previous BBS program failed at the mill in the early 1990's

2. Understanding why employees within many organizations have historically resisted planned change and what management needs to do to overcome this resistance

Restatement of the Problem

At the researched paper mill division in Wisconsin, management and hourly employees have resisted Behavior Based Safety (BBS). This resistance keeps the mill from successfully

implementing a BBS program; therefore, this could have a negative affect on the mill's injury experience.

Limitations

The perception survey for this study will be limited to the researched mill facility only. Because the last BBS program ended in the 1990's, some of the surveys questions will not apply to all employees completing the survey, as a number of current employees were not employed at the mill during this time. Also, many employees have retired since the last BBS program, so valuable information has been lost which may limit the perception survey findings. Another limitation to this study is that the results are relevant to the researched paper mill and not necessarily transferrable to other organizations.

Major Findings

Based on the perception survey results shown in chapter four it is obvious that the researched paper mill has many opportunities to address before new BBS implementation efforts should commence. First, the perception survey indicates that employees were not involved in the program's development which resulted in a lack of employee buy-in.

Next, there appeared to be a lack of communication, especially around program results. Not sharing this data creates two main issues. One, if employees don't see program results they are less likely to buy into the program, as they don't get to see the fruits of their labor. Secondly, not sharing results data created an environment where employees involved in the process couldn't make the necessary adjustments to ensure continuous improvement within the program.

Another factor that may have led to program failure at the researched paper mill was lack of training. Based on the survey results it is apparent that very few salary or hourly employees received training on effective ways to recognize substandard acts and conduct effective

interventions. Also, if training did not take place one could assume that there may not have been good technical resources available during the program's existence.

The survey results brought to light that strong leadership does not exist at the researched paper mill. For example, Figure 2 in chapter four shows that 92% of salary employees surveyed stated that they feel comfortable approaching and correcting someone who is performing an unsafe act. However, Figure 5 in chapter four indicates that only 1.4% of surveyed hourly employees feel there supervisor, or other management person, frequently approaches and corrects them while performing substandard acts.

Additionally, Figure 6 in chapter four shows us that only 9% of the surveyed hourly population feel there supervisor, or other management person, acknowledges them for performing safe acts. These results help conclude that leadership around employee work behaviors, both safe and unsafe, does not exist at the researched paper mill.

Conclusion

In conclusion, employees resist BBS at the researched paper mill. This conclusion is based from findings in the perception survey which also outlines that the researched paper mill failed at:

- Demonstrating strong leadership (management and union)
- Utilizing the services of a technical resource
- Conducting training
- Practicing and reinforce training
- Effectively communicating through each step of the process
- Making the necessary program adjustments based on results data.
- Involving employees in each step of the program development

- Building accountability into the process

- Tracking and reinforcing progress with the program

Recommendations

Based on the research findings it is apparent that the researched paper mill has several issues to address before implementing a new BBS program. First and foremost, the paper mill's management group must demonstrate leadership around work place safety interventions. Research discussed in chapter two indicated that companies can successfully counter employee resistance by demonstrating strong leadership. Therefore, managers at the paper mill must prove they can positively intervene with an employee who is performing substandard acts and correct the behavior without negative consequence. Other recommendations that the researched paper mill should consider include:

- Develop a communication strategy to ensure all employees have complete awareness of the program and its progress. This is needed to ensure employees feel involved and understand the BBS process.

- Develop a platform where managers have the necessary tools to positively reinforce employees who practice safe behaviors. This is needed to ensure that preferred behaviors have been defined and positively reinforced to promote desired outcomes.

- Hire an outside professional resource that can assist with all phases of the BBS program. Having the appropriate technical resources is needed to help guide the organization though their BBS program journey.

- Develop a process blue print to help stay on track through the implementation stages of the program. This is needed to ensure the BBS program progresses efficiently though each phase.

- Include employees in all phases of the program. Involving employees in every phase of the program allows employees to provide input, thus increasing the likelihood of employee buy-in.

- Develop and action orientated training program. Action oriented training provides an environment where employees can practice the necessary skills and receive immediate feedback on their performance.

- Practices training until desired outcomes are met. Practicing intervention skills ensures each employee has the necessary tools to appropriately participate in a BBS intervention.

- Develop measureable metrics. Sound metrics give an organization the ability to measure their progress, make necessary program adjustments and communicate program progress to employees.

- Share outcome metrics with employees. Sharing metrics will help an organizations set and achieve goals, institute accountability into the program and ensure all employees are working toward a shared vision.

- Hold employees accountable. Accountability is needed to attain goals and ensure desired outcomes are reached.

- Make necessary adjustments to the program based on the outcome metrics. This is needed to ensure continuous improvement takes place as a company progresses though the BBS process.

Recommendations for Further Study

   While the recommendations above will greatly aid the researched paper mill in successfully implementing a BBS program in the future, there are a few additional factors that may warrant further investigation. First, it has been identified that companies have successfully utilized several different variations of BBS. One could argue that there isn't any one style that will work best for any company. As such, the researched paper mill should study what BBS programs have worked successfully for other mills within the paper industry.

   Next, the researched paper mill should explore what technical resources are available to assist them through their BBS journey.   There are several consultants in the industry today claiming to be BBS experts, so one must vigilantly choose a technical expert to assist their mill's BBS efforts. To do this, the researched paper mill should research several possible candidates and develop a selection process to ensure they hire the best available technical resource.

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