

THE APPLICATION OF RECOGNIZED CHANGE MANAGEMENT TECHNIQUES TO
THE DEVELOPMENT AND IMPLEMENTATION OF AN OCCUPATIONAL SAFETY AND
HEALTH PROGRAM

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Statement of the Problem

It's common knowledge that a purely compliance or regulatory based approach to workplace safety program development and implementation is not sustainable. This is due to the fact that compliance based programs are driven by rules and enforcement and are easy to disregard or ignore when operational priorities change. Employees do what they are told because they have to and not because they want to. Simply put, compliance based programs address the conditions but they do not address the behaviors that lead to accidents and injuries. (Towle, slides 5-6, 2015). Organizational safety goals cannot be met without a strong safety culture and how that culture affects the everyday behavior of all employees. (Goetsch, 2010).

Results

Changing the culture of an organization is one of the most significant challenges leaders face because of the many variables that are involved and individual personalities and experiences. (Denning, para. 1, 2011) The development and implementation of an organizational occupational safety and health program is an involved and complicated process that can affect many facets of a company's operations and all of its employees. Beyond that, a safety program is only truly

effective when the program influences, measures, confirms and supports a positive culture within the corporation. The development of positive safety attitudes has the single greatest impact on incident and injury reduction of any other process. (OSHA, n.d.) An organization's corporate philosophy determines how employees approach their work, interact with each other, treat customers, and perform their duties when not being supervised.

Conclusions

Positively influencing the culture of an organization in any capacity is an effort in change management. As such, recognized change management techniques and processes should apply. Unfortunately, when it comes to safety programs and culture, established and recognized change management approaches are not always considered.

Research

This paper evaluates and describes the key elements of a safety program and traditional methods of development and implementation. It also examines established and effective change management approaches and recognized leadership methods that can be applied to safety program development and implementation.

Recommendations

Although the development and implementation of a safety and health program is difficult in any organization, the application of change management techniques to the process will effectively influence the culture of the organization and foster a safety philosophy that becomes an organizational core value. This will naturally shift the company to a behavioral focus verses just a conditional minded organizational emphasis.

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Introduction

Statement of the Problem

Workplace safety and health has a long and complex history in the United States and many organizations still struggle to support an injury and loss free workplace. In most cases, the lack of positive direction and poor performance are tied to a focus on hazards rather than on manager, supervisor and employee behaviors and attitudes.

In 1931 H.W. Heinrich theorized that the vast majority of workplace injuries are the result of unsafe behaviors and not, necessarily, hazardous conditions. Heinrich theorized that 88% of industrial accidents are caused by unsafe acts by employees while only 10% are the result of unsafe mechanical or physical conditions. The remaining 2% are said to be unpreventable. Heinrich's groundbreaking study laid the groundwork for safety program development, implementation and management strategies for decades. (Manuele, p. 54, 2011)

Heinrich's hypotheses steered many organizations toward behavior-based models for safety program management because his recommendations were concentrated on utilizing the most easily prevented cause when identifying suitable solutions:

“Selection of remedies is based on practical cause-analysis that stops at the selection of the first proximate and most easily prevented cause (such procedure is advocated in this book) and considers psychology when results are not produced by simpler analysis.” (Manuele, p. 54, 2011)

Heinrich goes on:

“In the occurrence of accidental injury, it is apparent that man failure is the heart of the problem; equally apparent is the conclusion that methods of control must be directed toward man failure” (Manuele, p. 54, 2011)

Given Heinrich’s findings it makes sense that employee safety should be addressed at the behavioral level but he failed to identify or discuss the complex nature of accidents and injuries, the many variables that are at play when an incident occurs and the many factors that lead to unsafe or at risk behaviors. If current trends in causal analysis are adhered to, it’s not enough to simply identify employee action or inaction as the sole cause of incidents. The intent of a complete investigation is to discover the direct, contributing, and root causes for injuries and accidents.

Root causes are the underlying reasons injurious conditions are present or at-risk behaviors are displayed. (Goldberg, 1996) Meaning that, if an employee acts unsafely, there’s a reason the employee has done so. It could be lack of clearly defined and communicated expectations, lack of management oversight or involvement, lack of supervision, deficient or non-existent programs, inadequate training, etc. Most often, root causes are organizational or programmatic in nature and require a holistic big picture approach. When employee failure is determined to be the cause of incidents, prevention is focused on the worker as opposed to the operating system in which the employee failure occurred. (Manuele, p. 55, 2011) Changing a company’s direction and bridging the gap between deficient safety systems and sustainable superior performance is a change management endeavor.

Purpose and Significance of the Research

Organizations have long struggled with the development, implementation and maintenance of occupational safety and health programs. Without specific guidance, models, or processes company's flounder and typically apply a trial and error approach to program implementation. In addition, they often focus on the wrong aspect of program failure when attempting to understand why it's not working in their organization. When programs are implemented, often, who will be affected, how they will be affected and what the consequences of the change may be are not addressed. They haphazardly identify problems and attempt to implement solutions without consulting the individuals within the company that actually have to use the controls, processes, programs, or procedures.

Safety programs fail for a variety of reasons:

- Focus on the numbers and not on the people
- Lack of written programs
- Lack of follow through on the written programs
- Lack of recognizable management support
- Failure to identify safety roles and responsibilities
- Failure to implement a system for accountability
- Focus on productivity and quality over safety
- Lack of a cohesive safety program
- Implementation of programs not tailored to the company (SeaBright, pp. 3-4 2003)

Many companies emphasize worker's compensation costs, accident and incidents rates, experience modification factors, lost work day rates, severity rates, citations and fines, etc. (Safety BLR, 2011) Not only do they focus on these lagging indicators but they communicate their

performance or lack thereof to employees using these metrics. A safety program should concentrate on the people, not only those who are being injured, but also those that are expected to support and move the program forward. These failures are the result of not actively or accurately identifying all stakeholders and what roles they play in the process, poorly evaluated and identified needs, gaps, and necessary resources, poor communication, lack of employee involvement, and the absence of a clear vision and trust. It's imperative that all stakeholders be involved in the process if a safety program is expected to be successful and sustainable.

Change is also something that many companies struggle with and organizational change efforts fail for a variety of reasons; many of them are very similar to those that cause safety efforts to fall short:

- Lack of clear communication
- Use of jargon and technical descriptions
- Use of numbers and statistics
- Fear based justification
- Failure to consider employee and stakeholder visions, observations, and concerns
- Lack of clear leadership
- Poor planning
- Deficient or non-existent processes (Strauss, 2015)

Decision makers may fail to or ineffectively communicate why change is needed and how it will benefit the company and the employees. Communication is delivered in ways that are hard to comprehend and that do not create a sense of urgency or in ways that elicit a positive emotional response. (Smith, King, Sidhu, & Skelsey, p. 38, 2014) Finally, fear based communication, "If we

don't do this, then this will happen", produces negative emotional responses while positive and optimistic communication, "If we work hard and accomplish this, this is how we will benefit", improves employee trust, buy-in, and ownership. (Strauss, para. 4, 2015)

Many organizations fail to involve employees in the change process and they don't understand or make an attempt to understand that change is hard for some people and their concerns need to be heard and addressed. Without clear direction and defined steps, employees flail and become resistant to the change, don't support it, work against it, and do not participate in its management and maintenance. (Strauss, para. 3-7, 2015)

Most of the common failures in safety programs and change efforts are the same or very similar. They mirror each other because safety management is a change process and if change can be successfully managed and maintained using recognized approaches, models, theories, and systems, then the same can be said for safety efforts. This paper will examine traditional safety program elements and implementation methods; it will discuss the roll of culture in workplace safety, and it will examine several recognized change management processes and how they may be applied to the development, implementation, and management of organizational safety and health programs.

Background

A Brief History of Occupational Safety in the U.S.

The history of employee safety in the U.S. can be traced back to the early industrialization period from the late 19th century through the early 20th century. Some key incidents that lead to a national focus on worker safety include the Monongah, WV mine explosion of 1907 where 362 workers were killed, the Triangle Shirtwaist factory fire in New York City that Killed 146 workers with the latter being the catalyst for drastic changes in the U.S. with regard to occupational safety oversight and regulatory involvement. (OH&S, 2007)

The Triangle fire was especially tragic because of the circumstances and management practices that lead to the employee fatalities. The factory was on top two floors of a ten story building in the Greenwich Village Section of New York City. The fire started on the 8th floor and within nine minutes the entire factory was consumed by flames. Management had locked most if not all of the exits from the building in an effort to reduce theft and the doors that were available opened inward causing workers to pile up and block the egress during the panicked response to the emergency. (Friedman & Ellis, 2011) Undoubtedly, the staggering loss could have been prevented had the Management of the factory considered human life over material loss.

Shortly after the Triangle tragedy the United Society of Casualty Inspectors was created in New York City which later became the American Society of Safety Engineers (OH&S, 2007), which still exists today and is comprised of approximately 37,000 members and safety professionals (ASSE, n.d.). In 1913 the National Safety Council was formed to address a broad range of safety issues including traffic safety and industrial safety. (OH&S, 2007) All of these organizations participate in consensus standard creation but none of the rules and regulations they promote are mandatory and they are not punishable under the law.

Astonishingly, worker safety was not addressed on a national level until 1970 with the passing of the Occupational Safety and Health Act which created the Occupational Safety and Health Administration, the National Institute for Occupational Safety and Health, and the Occupational Safety and Health Review Commission. (OH&S, 2007) The Occupational Safety and Health Administration is the Federal Government's regulatory body which provides employee safety oversight in the form of inspections, citations and penalties, and employer and employee assistance. The National Institute for Occupational Safety and Health is the Federal Government's workplace safety research organization that helps to provide information and support for the creation of safety and health regulations.

A Brief History of Change Management

Change management as a process or discipline did not exist for many years. Although organizational change has always occurred, there was no coordinated, controlled or convenient approach that could be used by an organization to make the process easier or ensure successful, convenient, meaningful and sustainable outcomes. Companies that did it well did it naturally and unpredictably and most companies did not consider the desires and anxieties of those within the organization who would be affected. (LaMarsh, p.1, 2016)

Kurt Lewin was one of the first professionals to develop a theory specific to change management and presented his model in 1951. Lewin's was a three step approach and addressed the fact that there are often many varied forces at play and working in opposition during the change process. His theory was that driving forces push employees to change while restraining forces hinder change by forcing employee in the opposite direction. The intent of the three step process was to shift the forces in the direction of the desired change. Lewin proposed that organizations

must unfreeze, then move, then refreeze. (Kritsonis, pp. 1-2, 2005) The limitations on this theory include the fact that Lewin did not consider individual feelings and experiences and the effects they can have. (Kritsonis, p. 6, 2005)

In 1958 Lippitt, Watson, and Westley took Lewin's model and expanded it. They broke the "move" phase into three steps including clarifying or diagnosing the problem, examining alternative routes and goals, and transforming intentions into actions. They also theorized that the change leader must build relationships with those that are affected by the change which led to the creation of two more stages addressing the building of relationships and then terminating them when the change is complete. (Hayes, p. 25, 2014) The theory finally evolved to include seven total steps.

Richard Beckhard and Reuben Harris presented a slightly different three stage model in 1987. Their three step process focused on defining the present state and the desired future state, managing the transition, and maintaining and updating the change. The transition stage gets special attention in this model and may include several other aspects depending on the organization and the circumstances involved. (Hayes, p. 26, 2014)

Finally, in 1996 Gerard Egan presented a model that also includes three steps but focuses more on the unfreezing and moving stages of Lewin's original process. Egan's model includes the assessment of the current state of affairs, the identification of several possible outcomes, and the creation of specific processes or strategies to arrive at the most desirable result. The model is simply communicated using three words; diagnosis, visioning, and planning. (Hayes, p. 26, 2014)

The evolution and progression of the change management process has resulted in the identification of several key characteristics and areas of focus. The models discussed above

highlight the importance of relationships on the change management process, the assessment of the current state and what a more desirable state looks like, the identification of specific processes or strategies to reach the desired state, the translation of those strategies into actions that effectively produce the change, and the intentional maintenance or sustaining of the change as the organization moves forward. (Hayes, p. 26, 2014)

Literature Review

Safety Program Elements

The Occupational Safety and Health Administration identifies the essential elements of a functioning safety program. The essential elements are:

- Management Leadership and Commitment
- Employee Participation
- Hazard Identification and Risk Assessment
- Hazard Prevention and Control
- Safety and Health Education and Training
- Program Evaluation and Continuous Improvement (OSHA, p. C, 2015)

Sincere management commitment should provide the incentive and resources for coordinating and managing work activities within the organization. OSHA indicates that safety should be treated and nurtured as an organizational value that receives as much focus and attention as other company values, business functions and processes. Management can demonstrate their commitment by creating a workplace safety policy that defines responsibilities and communicates safety and cultural expectations and that demonstrates the significance and magnitude of safety

within the organization. In addition, Management validates its dedication to safety by encouraging constant improvement, by communicating its pledge to employees regularly, by setting organizational expectations and safety and health goals, by fostering safety as an organizational value, allocating adequate resources, and, most importantly, by setting a good example. (OSHA, pp. 6-7, 2015)

Employee participation is another important aspect of a successful safety program and one of the most vital facets of employee participation is the reporting of safety and health concerns to management. Employees know their jobs more than anyone and they are uniquely suited and qualified to identify and report specific hazards, dangerous conditions, near misses and injuries and accidents. When conditions and behaviors are identified before they result in a loss producing incident, the organization is able to directly affect the probability for loss before it occurs. Managers and supervisors must also promote employee participation and involvement in all aspects of the program, its development, and ongoing management. When managers and supervisors encourage involvement it demonstrates that they value employee input and participation and the inclusion of employees in the program's design and implementation creates personal ownership and buy-in on the program. (OSHA, p. 8-9, 2015)

Employee access to safety and health information is also an important method of employee involvement and it is required by law. Employers are required to share chemical safety data sheets, injury and illness data, the results of safety and health sampling and monitoring, and their own injury and illness information. Beyond the requirements, transparent communication and sharing of safety and health information builds trust and allows workers to offer suggestions for controls and mitigation. (OSHA, p. 10, 2015)

The identification and assessment of hazards is an essential aspect of every safety program. Hazard recognition is accomplished in a variety of different ways. For example, the collection and analysis of existing information and data including equipment manuals, chemical safety data sheets, insurance inspection reports, injury and illness logs, medical surveillance records, and employee feedback. Information is also available from outside sources as well including sample safety and health programs, OSHA and NIOSH resources, consensus organizations, unions, and 3rd party consultants. Workplace inspections can also help a company to recognize existing hazards before they cause injuries and illnesses. (OSHA, pp. 11-12, 2015)

One of the more reactive methods of hazard recognition, but still a necessary one, is the investigation of accidents and incidents. Incident investigation is reactive because the company has already suffered a loss as the result of an unrecognized or uncontrolled hazard. Ideally, hazards are recognized and addressed before incidents occur. Many organizations include near miss events in their definition of incident which is a more proactive reporting and investigation model. Near misses are incidents that could have resulted in a loss, e.g. injury, illness, death, or damage to property, but did not. Near miss events are caused by the same behaviors and conditions that cause actual losses but the sequence events, fortunately, does not lead to the negative outcome. It should be noted that the purpose of incident investigation is to arrive at contributing root causes and not to place blame or justify discipline. (OSHA, p. 13, 2015)

Once hazards are recognized or identified, exposures either need to be prevented through elimination and/or substitution or controlled using engineering and/or administrative techniques. The first step hazard prevention is identifying all of the control options available and then choosing the most protective measure, evaluating whether or not it is feasible and practical and whether or not it will adversely affect the organization's ability to accomplish the task. Once the most

desirable control is selected it must be installed, implemented, or communicated to all affected employees. Finally, it must be referenced in the company's accident prevention program and regularly evaluated to ensure that it is effective. (OSHA, pp. 16-18, 2015)

It is essential that every organization establish global expectations as it applies to the safety program, safe work behaviors, and safety culture. One of the most effective ways companies accomplish this is through comprehensive education and training. Employees must be provided with a fundamental understanding of the overall safety program and its structure as well as all of the policies, procedures, and plans that are contained within the program and how they are applied. All employees must be trained on safety and health roles and responsibilities as well as how they apply to them and how they affect work. Lastly, workers must be educated in the processes associated with hazard identification and control as well as on the specific controls the company has already implemented. (OSHA, pp. 19-20, 2015)

If a program is expected to remain effective it must be continuously reviewed, evaluated, and improved. Program implementation and operation must be verified on a periodic basis and when work processes, equipment, and policies change, the modifications must be monitored to ensure that they are at least as effective and safe as the ones that preceded them. The program's progress must be continuously monitored compared to pre-established metrics and organizational initiatives, goals, and values. It's also critical that programmatic deficiencies be identified and corrected. (OSHA, pp. 21-22, 2015)

While it's nice that the Occupational Safety and Health Administration provides the above guidance with regard to an effective safety program, they leave it up to the organization to decide

how to accomplish and implement all of the elements identified. Left up to individual companies, safety programs have been implemented in a variety of different ways.

Traditional Implementation Methods

Traditional safety programs often focus on compliance with laws, codes, rules, and regulations. Management can commit to operate safely and to protect employees from hazards but when safety must compete with production, schedule, quality, finances, etc., it is often overpowered by the other operational priorities that exist. Compliance based safety programs establish safety as a requirement and not an objective, goal, value, and/or aspiration. (Smith, para. 2-4, 2012)

Compliance based programs are a narrow approach to safety management and are often inserted into an organization's management systems without considering how they will affect those systems and the outcomes the systems produce. It becomes an odd fit similar to trying fit a square peg into a round hole and safety falls to the wayside as other priorities move up the list. Companies that monitor this performance realize that they are not achieving safety success and try to rearrange or improve the program they have in place by adding things to it, moving things around or taking things away. They throw additional safety professionals at the problem, change up or increase safety training, increase or alter safety inspections and audits, refocus and adjust safety inspections, add motivational tools and incentive programs, and employ gimmicky safety slogans, posters, processes, tools, and recognitions programs. (Smith, para. 11, 2012)

Thomas A. Smith likens this phenomenon to arranging the deck chairs on the titanic. (Why Traditional, para. 13, 2012) The company can do whatever it wants within the existing program

and safety philosophy but it's still going down. These are superficial fixes that do not address the underlying system and programmatic deficiencies that cause most accidents and injuries. After all of the above fixes fail, many companies attempt the employee empowerment approach. On the surface it appears as though management is distributing its power by soliciting employee input and participation but managers retain the decision making power. (Smith, para. 14, 2012)

A more progressive approach to safety program implementation and management is offered by David L. Goetsch in his book establishing a Safety-First Corporate Culture in Your Organization. (2010) Goetsch's approach seeks to positively affect the overall culture of the organization and to steer it toward a more safety minded outlook. The author identifies ten distinct steps:

- Gain Commitment to a Safety-First Corporate Culture
- Expect Safety-First Attitudes and Practices
- Role Modeling the Expected Safety-First Attitudes
- Orient Personnel to the Expected Safety-First Attitudes
- Provide Mentors Who Exemplify Safety-First Expectations
- Train Personnel in the Expected Safety-First Attitudes and Practices
- Make Safety Part of Team Building
- Monitor Safety-First Attitudes
- Reinforce Safety-First Attitudes with Rewards and Recognition
- Periodically Assess the Safety Aspects of the Corporate Culture (Goetsch, pp. vii-xi, 2010)

The intent of the method is to establish several organizational qualities and practices; employee commitment to safety, safety-first attitudes as an expectation, the modeling of safety-first attitudes and practices, the communication of the importance of safety-first attitudes and practices, the mentoring of new employees in the safety culture, reoccurring safety training for all employees, safety as a part of the team-building process, the evaluation of safety-first attitudes and culture, and the implementation of corrective measures whenever necessary. The theory is that these qualities and practices form the foundation for the program and a positive safety culture. (Goetsch, pp. xvi-xvii, 2010)

Roughton and Mercurio break their approach to safety program implementation and management into a number of areas; the characteristics of an effective safety culture, management aspects of an effective safety culture, safety and health programs that support the safety culture, and measuring the safety culture. (Roughton and Mercurio, pp. vii-xiv, 2002) Each of these areas is broken down into specific aspects that start to paint the picture of what the safety program looks like and how it's accomplished including management leadership, employee participation, hazard prevention and control systems, accountability, incident investigations, safety and health training, program evaluation, etc. (Roughton and Mercurio, pp. vii-xiv, 2002)

What all of these methods have in common is a close similarity to the OSH program elements described by the Occupational Safety and Health Administration with no specific guidance or direction. There are no methods for implementation offered, no processes identified, no model for how to achieve the benefits the programs propose by installing them in an effective, efficient, and sustainable way.

Change Management Processes

There are many change management philosophies and processes that can be used to implement sustainable change in an organization. Three of the most popular models are offered by Kurt Lewin, John P. Kotter, and Peter Senge. Lewin's Model seeks to break down shared mentalities that are barriers to change while Kotter's model follows a specific plan that is meant to address common change management mistakes many companies make. Senge's model achieves effective change through learning and thinking processes. (Smith, King, Sidhu, & Skelsey, p. 36, 2014)

As discussed earlier, Lewin's change model was one of the first that was conceptualized and documented and involves three distinct steps: unfreezing, changing, and refreezing. The fundamental idea behind Lewin's model is that combined attitudes need to be broken down before change can occur and then the new shared mentality needs to be cemented in the updated model. During the unfreezing phase decision makers and change managers must transparently outline the current state of affairs while including the other stakeholder's in the process. When employees have ownership in the defining process they support the current situation and the role that they've played. The organization also creates a vision of the future state during the unfreezing phase. Stakeholder participation is important during this phase as well and the vision should be framed in a positive way. Finally, during the unfreezing phase the company must attempt to identify who will support and who will resist the change so those who will urge the change can be put into positions to encourage a successful change process. (Smith, King, Sidhu, & Skelsey, p. 37, 2014)

The changing phase of Lewin's Model involves the implementation of the strategic change plan. Employees are guided through the change following the plan and using the change champions that were identified during the first phase. Companies should take an experimental approach during

this process and should try a variety of solutions for the problems that arise. (Smith, King, Sidhu, & Skelsey, p. 38, 2014) During the refreezing phase the company cements itself in the new state. New processes and practices become the normal operating condition and new philosophies take the place of past ideologies. The company must carefully maintain the change and ensure that the old ways of doing business do not creep back in. (Smith, King, Sidhu, & Skelsey, p. 38, 2014)

In 1995, John Kotter proposed his groundbreaking change management process in a Harvard Business Review article and it has gone on to become a staple in the change management body of knowledge and is taught in programs all over the United States. Kotter developed his process through the identification of eight common mistakes companies make when attempting to implement change. Then, he simply created eight steps to counteract each of those mistakes. (Smith, King, Sidhu, & Skelsey, p. 38, 2014)The eight steps are:

- Establish a sense of urgency
- Create a guiding coalition
- Develop a vision and a strategy
- Communicate the change vision
- Empower employees for broad-based action
- Generate short term wins
- Consolidate gains and produce additional change
- Anchor the new approaches in the culture (Smith, King, Sidhu, & Skelsey, p. 38-39, 2014)

The intent of the “establish a sense of urgency” phase is to get everyone, decision-makers and stakeholders, on the same page and in support of the change. While it’s next to impossible to

get everyone on the same page, it is possible to get a majority of people to agree. It should involve a description of the current state of affairs and why that state is not beneficial and a description of the future state and why it is positive. The step basically prepares the organization for the conceptual change so that all of the players are supportive, participate in the rest of the change process, and help to overcome the barriers that prevent change from happening. (Smith, King, Sidhu, & Skelsey, p. 38, 2014)

Kotter indicates that cooperation is vital for any successful change management effort and creating a sense of urgency surrounding the change helps to overcome the complacency that can hinder change and ultimately cause it to fail. When complacency within an organization is prevalent, the change effort stalls or fails to begin because employees are not invested in the problem and the change solution. Even when there is a small dedicated group who believe in the change, work toward the change, and maybe even implement a new process or solution to a recognized problem, if others within the organization are complacent the change will not be sustainable and will eventually fail. (Kotter, pp 37-38, 2012)

Creating a “guiding coalition” is important because it instills trust and helps to develop a common goal. It’s essential that the guiding coalition include people capable of making far-reaching organizational decisions and strong leaders. The people in the coalition must have integrity and be trusted throughout the organization. (Smith, King, Sidhu, & Skelsey, p. 38, 2014)

A dominant force is required to successfully effect major change in complex organizations. A single individual cannot create an appropriate vision, communicate that vision to the entire organization, lead and manage the efforts of large groups of employees, overcome complications, identify and communicate short-term wins, and sustain the new state of affairs alone. Change

requires a strong guiding team made up of organizational leaders that are trusted and that share the same vision and objectives. (Kotter, pp. 53-54, 2012) The right team must have positional power meaning that the team must have members who are decision makers within the company so that they can make important determinations during the process. The team must also be made up of individuals who are subject matter experts and who are diverse with regard to areas of expertise, work experience, cultural background, etc. Team members must also have credibility and be leaders within the organization. (Kotter, p. 59, 2012)

Kotter defines vision as, “a picture of the future with some implicit or explicit commentary on why people should strive to create that future”. (Smith, King, Sidhu, & Skelsey, p. 39, 2014) The change vision should be tangible and should frame the future in a positive light for most if not all of the key main stakeholders. (Smith, King, Sidhu, & Skelsey, p. 39, 2014) The vision should be created by the guiding coalition while considering the thoughts, experiences, and feelings of the employees and other stakeholders.

The “change vision” serves three very vital purposes. By clarifying the direction of the change, the company simplifies many of the decisions that must be made in the future and as the process moves forward. The unified vision also encourages employees to move in the right or desired direction. Finally, the vision effectively organizes the actions and efforts of many people in an effective way. (Kotter, p. 71, 2012)

It cannot be overstated how important communication is during a change process. Transparency in communication is just as important. The change vision must be communicated to all stakeholders and affected employees and the communication must be delivered repeatedly using a variety of different methods and formats. (Smith, King, Sidhu, & Skelsey, p. 39, 2014)

The power and effectiveness of the unified vision increases exponentially the more people understand it and are committed to it. This is why communication is essential. Effective communication must be simple and should not include jargon or technical information that is not readily understood by the intended audience. Communication should include metaphors, analogies, and or specific example because they create a picture for the workforce that can be understood and easily remembered. The process of communication is accomplished in a variety of different ways and in different forums. All employee meetings, small group meetings, memos, newsletters, emails, posters, and direct interaction are all ways the change vision can be communicated to employees. The communication must be repeated and refreshed with new formats and visuals while the message is consistent and concerns are addressed. (Kotter, p.92, 2012)

“Employee empowerment” is an important aspect of the change process. Organizational change requires the support and the participation of employees and stakeholders at all levels. When employees are empowered and involved in the process they gain a sense of ownership in the change and will work to see that it is successful and sustained. (Smith, King, Sidhu, & Skelsey, p. 39, 2014) True organizational change requires the participation of employees at every level and as many workers as possible within the company. The problem is that employees won’t participate or can’t move the vision forward when they are powerless. (Kotter, p. 105, 2012) Employee empowerment involves a shared sense of purpose and the breaking down of walls that impede or prevent action. Empowerment also involves employee training that focuses on the vision and organizational expectations. Information and personnel systems and processes must also be aligned with the goals and change vision if employee empowerment is the goal and supervisors

who negatively affect the empowerment process or undermine the vision must be confronted and corrected. (Kotter, p. 119, 2012)

The identification and communication of “short term wins” help to encourage continued support for the change effort. It creates opportunities to celebrate incremental gains and to recognize important individuals who have contributed to the successes so far in the process. (Smith, King, Sidhu, & Skelsey, p. 39, 2014) Short term wins provide the proof that employees need to understand that the effort and sacrifices are worth it and they provide justification for the new direction. They also reward those who work diligently on the change effort by recognizing their accomplishments. In addition, wins help the guiding team by providing the data they need to refine the vision and narrow down specific strategies. The communication of short term wins helps to disprove and delegitimize the internal naysayers and it keeps upper managers on board and supportive. Finally, short term wins maintain and build additional momentum and motivation for the vision, the effort, and the desired end state. (Kotter, p. 127, 2012)

As the change occurs there are always setbacks and tendencies to revert back to the old way of doing business. “Consolidating gains and achieving more change” involves pressing on, delivering more change, and increasing rather than decreasing the resources dedicated to the change process. Solid leadership, clear direction, and good program management are vital during this phase. (Smith, King, Sidhu, & Skelsey, p. 39, 2014) This step moves beyond the short term wins identified earlier and uses them to justify attention to much larger and more difficult changes. It requires additional resources and new ideas and strategies and upper managers must bolster their leadership if larger gains are to be made. Lower level involvement and support is also important because leadership is needed at the operations level just as much as it is at the management level.

This step moves the company toward its ultimate goal and end state in larger chunks. (Kotter, p. 150, 2012)

In order to truly be called a success, the change must be sustained after the process of changing is complete. In order for the change to stick it must be incorporated into the organizational culture. Kotter identifies the fact that seemingly successful change efforts can be overtaken by an organization's culture if it is not united with the change that was implemented. The culture needs to be constantly measured and evaluated and the change reinforced by continually communicating the benefits. (Smith, King, Sidhu, & Skelsey, p. 39, 2014) Culture is important because it indoctrinates individuals into the ethos of the organization and it creates a unified workforce. Culture also influences the attitudes, actions, and behaviors of employees throughout the company. A positive and beneficial culture guides business processes and employee behaviors without apparent or obvious intent so it is difficult for employees to question or challenge it. (Kotter, p. 159, 2012) In order for a change to remain and continue to influence the company's operations it must be anchored in the organizational culture. (Kotter, p. 153, 2012)

Peter Senge made his mark in the change management world by proposing systems thinking for effective change. Senge theorized that there are multiple factors or systems at play during the change process and that each affects another. Senge likens the change progression to a growth process and compares similar systems in nature. He explains that seed depends on many things to become a tree including water, nutrients, root space, warmth, etc. and that if any of these are interrupted the growth process stops or declines. If the tree succeeds beyond a certain point it must deal with additional constraints that may impede its growth including branch space, light, insects, etc. that can destroy the tree and the growth achieved. The same goes for change. In order for an organization to understand how change can be successful and sustained it must understand

the many growth processes that will encourage and facilitate the change and the constraining processes that will prevent it from being effective. By identifying these processes ahead of time, the company can address and support the beneficial practices and intervene to correct or eliminate the negative courses. (Smith, King, Sidhu, & Skelsey, p. 40-41, 2014)

Senge offers some of the common problems associated with initiating and sustaining change and redesigning and rethinking how the company does business:

- Initiating Change
 - Not enough time
 - Inadequate support
 - Lack of clear vision
 - Leaders not “walking the talk”
- Sustaining the Change
 - Internal anxieties
 - Lack of clarity on how to measure the change
 - Using culture inappropriately
- Redesign and Rethinking
 - Governance as control
 - Spreading new processes successfully
 - Giving meaning to the strategy and vision (Smith, King, Sidhu, & Skelsey, p. 41, 2014)

Senge’s process indicates that meaningful change is only accomplished through small initiatives and goals that are nurtured by leaders at all levels throughout the organization. These

employee leaders then spread the message, goals, and vision to their colleagues. (Smith, King, Sidhu, & Skelsey, p. 41, 2014)

John Hayes provides another change model in his book, *The Theory and Practice of Change Management*. Hayes encourages a process perspective and approach to change management and identifies seven steps for change management:

- Recognizing the need for change and starting the change process
- Diagnosing what needs to be changed
- Leading and managing the people issues
- Planning and preparing for the change
- Implementing the change and reviewing the progress
- Sustaining the change
- Learning from the change process (Hayes, p. 2, 2014)

In order for a company to remain viable and competitive in a changing world and market it needs to be able to recognize the need for change. Organizations must be able to respond to internal and external forces that can affect production processes as well as those things that can affect the demand for their products or services. The firm must be able to recognize and take advantage of opportunities and identify and intervene to combat threats. (Hayes, p. 43, 2014)

Identifying the need for the change and responding to internal and external events involves a systematic process for identifying factors that can influence a company's success. The firm must assess political factors including environmental regulations, financial legislation, consumer protection and employment protection as well as market regulations, and controls on telecommunications and broadcasting. Economic factors include credit availability, exchange

rates, borrowing costs, cash on hand, cost of materials, the availability of supplies, and new competition. Social and cultural factors include demographic fluctuations, education and training trends, availability of labor, and business ethics. Finally, the company must also consider the technological factors that could affect the business and their bottom line. These factors are research and development, changes in production processes, and distribution issues. Companies need to constantly assess all of the above in order to be able to identify the needs for organizational change. (Hayes, pp. 68-69, 2014)

Starting the change involves translating the need for change to an organizational desire for change. (Hayes, p.86, 2014) After the need is transformed into a desire, the organization must identify an internal change agent who facilitates the change process during the beginning stages. The change agent is someone who has the responsibility of managing the group or system where the change will take place and has the time, understanding, and dedication to manage the change effectively. (Hayes, p. 92, 2014)

Diagnosing what needs to be changed is the next step in Hayes' change process. The diagnosis is commonly accomplished through detailed analysis of and research into the company's processes and the identification of methods for improving efficiency, quality, production, etc. The diagnosis process takes the identified need for change and moves toward a solution that meets the need. (Hayes, p. 122, 2014)

The management of the people issues is a step that is actually applicable throughout the entire change process. Communication is one of the most important aspects of this step. People management is facilitated and improved when communication is clear, consistent, and specific. Leaders must express a convincing vision of a better future, encourage and persuade other

employees and stakeholders to apply the changes, ally organizational efforts through a common understanding, and provide feedback to keep the change moving and sustain it into the future. People management and communication should not be attempted without a clear strategy and plan which includes the identification of the important issues and goals that will effectively address them. (Hayes, pp. 214-215, 2014)

The next step in the process is planning and preparing for the change. There are several factors that must be assessed when planning for a significant change to include the steadiness of the situation outside the organization, the importance of the change and the risks involved, the level of support for the change, trust in the change leaders, the clarity of the future state, the collection of the data required, whether or not change leaders need to rely on others, the alignment of organizational values, and the degree to which coordination is required. The change team must consider all of these before selecting a change strategy whether they are economic, development, or a combination of the two. (Hayes, pp. 290-291 and 295, 2014)

The implementation of the change includes converting the objectives into definite endeavors. The implementation is where the organization puts the strategy and change plan into action. (Hayes, p. 435, 2014)

The review process allows change managers and the change team to evaluate the progress of the change and to redirect efforts if the process is deficient or stalled. Change managers must evaluate whether or not interventions are being implemented, if the interventions are producing the desired effect, and whether the plan is still valid and effective. This step is extremely important because it allows the organization to rededicate, reduce, or increase resources to ensure that the change is successful. (Hayes, pp. 451-453, 2014)

Finally, when the change has been implanted, it must be sustained. There are many definitions of sustainability including the view that it involves continuously improving while holding previously made gains which means that change management is an ongoing and contestant process that does not necessarily have a beginning or an end. Others believe that sustainability is achieved when new attitudes, thinking, and processes become the normal way of doing business. (Hayes, pp. 463-466, 2014)

Every organization can learn from their change experience and can apply those lessons to other change efforts in the future. The goal and intent of the learning process is to improve the efficiency and effectiveness of change efforts as the company moves forward and takes advantage of additional opportunities and combats external and internal threats. When an organization learns from its experience and adjusts its approach, it maintains a state of continuous improvement. (Hayes, p. 485, 2014)

In their book, *Change Management, The People Side of Change*, Jeffrey Hiatt and Timothy Creasey offer a slightly different change management perspective in that they focus most of their attention on dealing with the personnel issues associated with change management. They indicate that successful change depends on the individual and that efforts should be directed at addressing individual concerns. (Hiatt & Creasey, p. 1, 2012) The book states that:

“A perfectly designed process that no one follows produces no improvement in performance. A perfectly designed technology that no one uses creates no additional value to the organization. Perfectly defined job roles that are not fulfilled by employees deliver no sustained results. Whether in the workplace, in your community or in government, the

bridge between a quality solution and benefit realization is individuals embracing and adopting the change.” (Hiatt & Creasey, p. 1, 2012)

Hiatt and Creasey base their model on five tenets that describe why change must be actively managed. The first tenet is “We change for a reason”. (Hiatt & Creasey, p. 2, 2012) Organizations change because there is a reason to change. There may be an opportunity to take advantage of or a problem that needs to be addressed. The management of change is necessary because there is a potential condition that has been identified that is different than today’s condition, and the change will facilitate the realization of that condition which results in a desired outcome. There are many reasons for change to include growth, higher quality, better service, risk mitigation, etc. Change is not undertaken arbitrarily but because there is an opportunity to enhance the operation in a profound way. Companies must identify the reason for the change and communicate it effectively to all stakeholders. (Hiatt & Creasey, p. 2, 2012)

The second tenet is “Organizational change requires individual change”. (Hiatt & Creasey, p. 3, 2012) The main concept behind this tenet is that successful change only occurs when the individuals within the company adopt the new methods, update their behavior, put the new tools or equipment to use, and adopt the new organizational values as their own. When many individuals change it creates a collective change that helps to meet the objectives of the entire organization. (Hiatt & Creasey, p. 3, 2012)

The third tenet in this model is, “Organizational outcomes are the collective result of individual change”. (Hiatt & Creasey, p. 4, 2012) The underlying principle for this theory is the more employees that are involved, invested, and participate in the change effort, the more successful it will be. The organization must consider the level of potential involvement, the speed

at which employees engage and support the process, and how to implement change at an individual level. (Hiatt & Creasey, pp. 4-5, 2012)

“Change management is an enabling framework for managing the people side of change”, focuses on a systematic method for addressing individual employee, choices, capacities, limitations, and constraints. (Hiatt & Creasey, p. 7, 2012) The assumption is that employees will resist the change and when the organization fails to address the people issues, it will result in lower acceptance, slower implementation, and deficient competence as it relates to the change. The company receives less value from the effort. (Hiatt & Creasey, p. 7, 2012)

The final tenet is, “We apply change management to realize the benefits and desired outcome of change”. (Hiatt & Creasey, p. 9, 2012) This tenet identifies the fact that change management processes focus on the accomplishment of a desired result or outcome by effectively dealing with the people issues throughout the transition. Actively managing change strengthens the likelihood that the organization will achieve the desired goal and the benefit it provides. (Hiatt & Creasey, pp. 8-9, 2012)

Hiatt and Creasey’s approach also identify three key phases that are similar to the other models discussed. Preparing for the change includes defining a change management strategy, preparing the change management team, and developing a sponsorship model. Managing the change includes the development of change management plans and taking action to implement the plans. Reinforcing the change incorporates the collection and analysis of data, the diagnosis gaps and management of resistance, the implantation of corrective actions and celebrating successes. (Hiatt & Creasey, p. 63, 2012)

Preliminary Assumptions

As a safety professional, I have experienced firsthand the difficulties that organizations face when attempting to implement an effective safety program. A successful safety program is not one that merely meets regulatory requirements but one that actually keeps employees safe and prevents accidents and injuries.

As I've worked in the safety profession for the last nine plus years I have personally struggled to identify a systematic process for positively affecting organizational culture as it relates to safety and to execute programs that improve safety performance and increase employee participation and ownership. This was the primary motivation for completing an advanced degree program in organizational change.

In recognizing that workplace safety is, in fact, a change effort, I expected that the change management concepts and tools provided would be useful in creating safety programs that positively influence an organization and improve employee safety and health. The intent of this research paper is to explore various change management models and concepts and assess whether or not they are applicable to the development and implementation of successful safety programs.

Results and Conclusions

In conducting the research and reviewing the literature related to the change management process as well as several specific change management models, I've found that many of the methods can be applied to the successful creation and implementation of an occupational safety and health program. The employee involvement and engagement and communication concepts

that many of the models include seem especially relevant to safety program implementation. In my experience, many of the issues associated with safety program failure are centered on lack of employee involvement and deficient organizational communication so it goes without saying that a process that specifically addresses these issues may be useful to the safety professional and company decision makers.

Kotter's eight step approach seems particularly applicable to the safety program development and implementation process. Organizations can create a sense of urgency by assessing, evaluating and analyzing safety program performance. They can then compare and benchmark themselves against the numbers that data gathering agencies like the US Bureau of Labor Statistics provide. This process allows the organization to identify opportunities for improvement within their own company. Further analysis of specific data provides clarity with regard to where improvements are needed and what processes may be affected. All of this information should be shared with stakeholders and employees throughout the organization to increase the urgency and support for the change (Cable, para. 13, 2005).

Many companies already have safety committees, safety teams, or safety council groups in place that facilitate communication between line employees and the management team. This group might be a good place to start when composing the guiding coalition. The coalition should be made up of a diverse group of individuals from a variety of different disciplines and work areas. Most safety committees are comprised of employee leaders and management team members that are capable of addressing issues specific in their work groups and the line worker participants can carry the goals, vision, and process to the employees they represent and solicit feedback to bring and communicate to the management team. (Cable, para. 14, 2005)

The creation of the change vision is extremely important because it will influence the actions and efforts during the change process. It's important to set upstream measures and goals that can be directly controlled by the organization and its employees. Employees will feel powerless if they cannot positively influence the vision and affect the goals associated with it. The company should choose a positive vision that provides an improved future state by focusing on leading indicators of workplace safety rather than on reactive measures like incident rates, worker's compensation costs, etc. Focus on increased training, regular jobsite inspections, near miss reporting etc. allows employees to participate in the process and the solution. (Cable, para. 15, 2005) The vision should be an ideal state with goals that support that idea.

Once the vision and goals are created, they need to be communicated to all stakeholders and employees. Again, most organizations host regular safety meetings for various work groups and many companies have safety related publication and websites that can be used to communicate the vision to the workforce. (Cable, para. 16, 2005) I've found in my career that safety meetings are a great forum for keeping employees informed and for soliciting feedback for how to adjust efforts to better suit specific work groups. In addition to communication, the guiding team must establish expectations by modeling the behaviors that contribute to the success of the vision. (Cable, para. 16, 2005)

Next the organization must empower employees to act in support of the change. Employees should be encouraged to provide suggestions, identify hazards, report near misses, and participate in training. Employees should also be involved in the program and procedure review process to the degree possible. The organization can involve them in the creation of forms and the development of processes that affect the work they do in order to create tools that are useful and accessible. (Cable, para. 17, 2005) Employees should also be encouraged to act as the safety

decision makers in the field where safety professionals, managers, and supervisors are not present or available.

The company should also focus on the identification and communication of short term wins. Every time a goal is met, it should be identified, communicated, and those responsible recognized for the success. If a group meets its safety training goal, for example, or they correct a specified number of hazards, that group should be held up as an example and other groups should be encouraged to meet their goal as well. It's essential that these wins be focused on the proactive efforts identified above and not reactive metrics. (Cable, para. 18, 2005)

Continuous improvement is extremely important in safety program development and implementation because occupational safety is an evolving ever-changing pursuit. Regulations change, behaviors change, new exposures are introduced, employees revert back to prior mindsets, and work processes constantly evolve. Consolidating prior gains or successes and providing for continued change can be positively affected by the employees the company hires, the consultants used, personnel moves made, and by correcting or getting rid of the efforts and processes that do not support additional advancement. (Cable, para. 19, 2005)

It cannot be understated how important culture is to a successful safety program and the Kotter Change Management model provides guidance for the fostering of a culture that supports change and continuous improvement. In order to solidify the change and incorporate it into the culture of the organization the successes must be constantly communicated and the behaviors responsible for those successes recognized, supported, and encouraged. The culture is also affected and change cemented when leaders are trained, carefully developed, and succeeded by supervisors and managers that support the new philosophy and vision. (Cable, para. 20, 2005)

Recommendations

Safety program implementation and management are organizational change endeavors and processes that manage them as such will lead to a more successful program and will provide additional benefit to the organization. Many of the change management models and processes are similar and can be applied to safety program implementation and management with relative ease. All of the methods discussed in this paper address the specific issues that lead to change failure and as such safety program failure.

I'm confident that if change management concepts are applied correctly, carefully, and consistently to every aspect of safety program development implementation and management and if the change management process is supported and managed appropriately, it will ultimately lead to a reduction in workplace loss producing incidents. If the methods are applied in a constant improvement environment, the organization will continue to see advances in safety performance and safety culture throughout the company moving forward.

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