The Use of Training to Decrease Workers' Compensation Costs in a Mid-Size Manufacturing Plant

by

Rick Lemsky

A Research Paper
Submitted in Partial Fulfillment of the
Requirements for the
Master of Science Degree
in

Training and Development

Approved for 4 Semester Credits

Katherine Lui

Dr. Katherine Lui

The Graduate School

University of Wisconsin-Stout

May, 2007

The Graduate School
University of Wisconsin-Stout
Menomonie, WI

Author: **Lemsky, Richard W.**

Title: ***Identification and Classification of Dragon Flies: A Sixth-Grade Environmental Education Curriculum Model***

Graduate Degree/ Major: MS Training and Development

Research Adviser: **Katherine Lui, Ph.D.**

Month/Year: **May, 2007**

Number of Pages: **42**

Style Manual Used: **American Psychological Association, 5th edition**

ABSTRACT

In the late nineties, Company XYZ began to experience a drastic increase in their Workers' Compensation (WC) costs. In response to these costs, the facility undertook a sweeping reconfiguration in the way they approached WC costs. This study focuses on how training was used, what types of training assisted in the organizational change and the final results of the interventions.

To accomplish this, interviews members of the company's steering committee are conducted, as well as a review of company documents related to the organizational change. This is done to gather information relating to the reasoning for the change, its design, implementation and an evaluation of the change's effects on the facilities costs related to WC.

This study found that the study and its results were consistent with the best practices found in the prevailing literature. Company XYZ demonstrated a large reduction in their WC costs, reportable injuries and injury incident rates.

The Graduate School

University of Wisconsin Stout

Menomonie, WI

Acknowledgments

I wish to take this opportunity to thank and acknowledge those who have assisted me throughout my progress on this project and the Training and Development program. First, I wish to thank my parents and my brother. They have provided an incalculable amount of help and support in the past two years.

I also wish to thank Dr. Katherine Lui. Completing this project would have been much more difficult to complete. I have great appreciation for all of the guidance and advice she has offered me through out the Master's program and this thesis project.

Lastly, I wish to thank the members of XYZ's steering committee. They each took time from their busy schedules to speak with me about their workers' compensation program. Without their assistance, this paper would not have been possible.

TABLE OF CONTENTS

Chapter I: Introduction

Background

Cutting costs and improving efficiency is a goal of many organizations. The programs used to meet these goals can take on many different forms. As with any other organizational change, these projects can prove to be both beneficial and detrimental to the organization's performance. When these programs affect the people working within an organization, they can have significant impact on both the people and the organization. One such program is Workers' Compensation (W.C.).

History of Workers' Compensation

Workers' Compensation in the United States began with the advent of the Industrial Revolution (Petersen, 2003). Before the existence of W.C. in the United States, those suffering from work related injuries had no other method of obtaining any type of compensation from their employer, other then the use of the legal system. Even though employees could sue for these damages, the early laws in this area demanded that the employee bear the burden of proof where unsafe working conditions and negligence contributed to their condition. Often times, this proved to be too difficult and costly for the injured employee to bear. Even if the employee elected to undertake this option, the laws of the time made the possible outcomes more employer friendly. Because many workplace accidents involved some element of negligence on the part of the injured, the employer would commonly claim that contributory negligence was a factor and deny the claim (Thomason, 2001). Another method that employers had used to counter suits was to demonstrate that the injured understood that the job they had taken had some implied risks. When this was done, most cases would be dismissed (Guetsch,2005).

The first W.C. laws were passed in Prussia, now know as Germany, in 1838. As these laws grew in popularity, they quickly spread across Europe (Thomason, 2001). The first W.C. law that was passed in the United States occurred in 1908, and only applied to Federal employees (Guetsch, 2005). These laws were slow to catch on. At one point, they were declared unconstitutional by the State of New York in 1910. Incidentally, the next year, a number of devastating industrial accidents occurred, principally the Triangle Shirtwaist factory fire. These created a greater awareness of the need for W.C. laws and increased workplace protection. In 1911, the State of Wisconsin became the first to pass W.C. into law (Thomason, 2001). Soon after, other states began to pass W.C. laws of their own. Today, all fifty states and the District of Columbia have legislation mandating W.C. (Petersen, 2003).

In recent years, the cost of medical treatment for employees has been rising substantially (Thomason, 2001). This rising cost has become a burden not only for individuals, but employers as well. In addition to these rising costs, employers also run into abuse of programs meant to assist workers who are injured while working. These two combined have the potential of adding crippling costs to a company's bottom line.

Further research in this area can highlight the successful general practices of company XYZ and provide invaluable knowledge to organizations wishing to undertake a similar endeavor.

In the late 1990's, Company XYZ had begun to notice a drastic increase in W.C. costs. These increased rates continued despite the introduction of ergonomics and the encouragement of safe workplace practices. In mid-2003, the cost had risen to a point where the reduction of W.C. became the Management's top priority. From this point, a Management Steering Committee was assembled to develop a new strategy to combat this problem. What followed

was a reconfiguration of Company XYZ's procedures for addressing workplace safety and training.

Given this information, this study will focus on how training was used in the program, what types of training were used to assist in the organizational change, what the final outcome of the organizational change at Company XYZ.

Research Questions

The research of this study is guided by one major question. Can costs related to safety and health in a mid-size manufacturing facility be reduced through the use of organizational change and training? To assist the researching of this question, the researcher will identify what procedures changed, how training was used to facilitate the change, the types of training that were used, and identify any measurable results of success of the organizational change.

Assumptions of the Study

The research of this study is limited to the structural changes and implementation of a workplace injury program at a manufacturing facility. The participants of the research are members of the Steering Committee responsible for development and implementation of XYZ's revised Workers' Compensation Policy. Using only this group will introduce the possible bias in the reported data. This may occur because the group representing the steering committee consists of members representing management. The opinions and attitudes of the workers involved are not part of this study. In order to maintain anonymity of the participants, the members of the steering committee will be identified by fictitious names in this research study.

This study will also rely on the participants' memory of past events. Therefore, another assumption this study makes is that the information reported by these individuals regarding past events is both true and accurate.

Definition of Terms

Several terms are used throughout the discussion of Company XYZ's efforts to address WC costs within their organization. Many of these terms require additional clarification.

Workers' Compensation: "The legal development allowing injured employees to be compensated appropriately without the need for litigation against their employer," (Guetsch, 2005).

Risk Management: "The process of measuring and assessing risk and developing strategies to manage it," (Risk Management, 2006).

Structured Interview: "An interview in which the researcher asks a standard set of questions," (Leedy, 2001).

Scheduled disability: "An unambiguous injury to a critical, but duplicated body part, whose compensation and time period of payment can be set to a standard schedule (Guetsch, 2005)."

Non scheduled disability: "Injuries whose effects are more difficult to determine and where compensation is awarded based on a percentage determination of disability (Guetsch, 2005)."

Light duty tasks: "Returning to work with restrictions on normal activities as an accommodation for injury of illness (Smith, 2000)."

Limitations of the Study

The scope of this study is limited to the reduction of costs related to workers' compensation insurance costs at a manufacturing facility located in south eastern Wisconsin. Because of this, the methods and recommendations of this study may not apply to other industries or other like facilities located elsewhere. The population that will be used for this study is the three member steering committee that was responsible for the creation, implementation, and evaluation of the program at company XYZ.

This study relies heavily on the recall of the participants. Interviews will be one major vehicle in which information regarding the training program will be obtained. In doing so, the accuracy of the information in question will largely depend on the accuracy and completeness of the participants' memory.

This study also relies on the participation of only one group, this being the company's steering committee. This study will not address information that could be obtained by other employee groups, specifically non-management factory workers. Although these other groups may have relevant information to this study, they are beyond the scope of this study.

Another limitation involves documentation access. Due to privacy laws and specific company policies, I will not have complete access to all company documentation. Any documentation that may identify a person and their specific injury may be restricted from my access.

Methodology

The research described in this report was conducted using a case study method. The information gathered for this report was compiled using a combination of two different sources. These sources are made up by interviews and analysis of internal company documentation. The interview participants are individuals with direct knowledge of the program's development, implementation and outcomes.

Chapter II: Literature Review

This study discusses Company XYZ's attempt to recreate the way in which it handles workplace injuries and worker safety. Many resources are available to an organization seeking to undertake this type of organizational change. Due to the fact that many of these resources are designed for a very specific industry or set of circumstances, the researcher reviews the general literature on this subject. In doing so, the information from prior studies can be applied to a greater number of cases.

Workers' Compensation Objectives

Modern W.C. has evolved from ideas first introduced to the United States during the Industrial Revolution (Thomason, 2001). These ideas attempted to reach a compromise between employers and employees with regard to workplace injuries. This compromise established the basic principles behind W.C. First, benefits are provided by employers, regardless of fault. That is, an injured worker needs only to demonstrate that the injury was work related in order to have it covered by W.C. The employers benefit from limited liability and are insulated from some litigation involving negligence (Guetsch, 2005).

W.C. is governed by three major objectives when addressing workplace injuries (Guetsch, 2005). The first of these is the replacement of income. When injured, employees lose income because of their in ability to work. The amount paid for lost income can vary due to the specific nature of the injury and the specific legislation of the state (Thomason, 2001).

The second objective of W.C. is the rehabilitation of the injured employee (Guetsch, 2005). Medical benefits and rehabilitation are provided for all injured workers. In most states, there are no limits on appropriate medical care. This requires that every injured employee return to work, although it is not necessary to have them return to the exact same position (Goch, 1999).

Prevention is the last objective of modern W.C. (Guetsch, 2005). After an accident occurs, it is this objective that can reduce future employer W.C. costs. The organization will invest in preventative measures to decrease the likelihood of that accident occurring again. Doing this will reward the employer through the reduction of future claims and a decrease in rates of insurance coverage (Thomason, 2001).

Costs

W.C. can represent a variety of different costs, both direct (Guetsch, 2005) and indirect (Van Yoder, 2000). The direct costs of workplace accidents and injuries are typically the most identifiable. These include: cost of insurance premiums and legal fees.

In the United States, employer are required to guarantee that compensation be paid to injured workers (Chelius, 1991). Although some large employers may self-insure, most choose to purchase insurance as an alternative (Thomason, 2001). The rates paid on these insurance plans are determined by the classification of risky ness attributed to the job. The rates are also based on the actual costs of medical care paid in prior years (Chelius, 1991). For smaller employers, this classification is based off an industry average. In larger companies, the rating is based on the facility's or organization's part record of incidence. The employer can reduce their costs through reducing their occurrences of injuries.

The second cost directly associated with W.C. is related to litigation. Because of occasional fraud and abuse of the W.C. system, employers are sometimes called to refer W.C. issues to the court system (Guetsch, 2005). Also, some employees may sue employers for additional compensation, claiming negligence. For these reasons, organizations may incur trial costs directly associated with a W.C. case.

Indirect Costs

In addition to the direct costs an employer may experience because of W.C., there are also many indirect costs present (Van Yoder, 2000). These costs are more elusive to address, but can cause greater damage to an organization. The first of these indirect costs is that of lost time. When an employee is injured on the job and is unable to work, they are still paid a percentage of their prior wages (Guetsch, 2005). In addition to this cost, the work customarily performed by this person will still need to be completed. This will cause additional costs in the form of recruiting and training of a temporary employee. If a temporary employment agency is contracted, there will be fees for its use and a short-term loss in production due to the employee's absence (Perry, 2006).

Another indirect cost of W.C. comes about through poor company morale (Van Yoder, 2000). When workers do not enjoy working in their positions or feel safe, they may be more likely to make excessive W.C. claims to avoid work. Making sure that an employer addresses these concerns may allow employers to avoid these costs.

The last indirect cost associated with W.C. is equipment damage. When injuries occur around machinery there is a likelihood that damage to the machine may occur. These damages will cost company funds to repair. Also, the repair time represents a loss in production, which represent a cost to a business.

Problems Associated with Workers' Compensation

Although the workers' compensation system was started as method to assist individuals suffering from work related injuries, the system has many shortcomings in the areas of costs and system abuse. When the W.C. system began, most of the injuries were characterized as being sudden and unexpected events (Guetsch, 2005). Since this time W.C. had evolved to cover many

more types of injuries. Many of these new diseases have proven to be harder to diagnose objectively (Bohlander, 2004). One example of this type of injury is back pain. This type of injury is difficult for a doctor to diagnose, often taking the patient's word that the ailment exists (Guetsch, 2005). Another type of injury covered by modern W.C. are those that result from long periods of exposure to poor environmental conditions or very repetitive work. This type of situation is also difficult for an organization to correct, as its cause may be unclear and may not have a direct cause in the workplace (Thomason, 1998).

Modern W.C. also covers psychological conditions resulting from working in a position. One of the most troublesome of these is stress claims. Stress is defined as a mental or emotional strain that can be caused by anxiety or overwork (Encarta, 2006). Stress is another ailment whose root cause can be somewhat nebulous and is difficult to determine whether the workplace or the position is the cause of the stress. Stress is an element of every position. When it is prolonged, it can have physical effects (Guetsch, 2005). Should an organization choose to contest claims for these types of injuries, the court system often becomes involved and mediates the dispute. Trials typically involve the participation of expert witnesses and lawyers who can drive up the over all costs associated to the W.C. claim.

Injury Types

W.C. classifies all injuries into four categories. These categories include: temporary total disability, temporary partial disability, permanent partial disability and permanent total disability (Guetsch, 2005).

Both temporary disabilities describe an injury that is likely to improve, allowing the worker to return to work with little or no disability (Guetsch, 2005). These disabilities are

normally not difficult to for medical professional to diagnose and prescribe an expected time line for recovery.

A temporary total disability is one where a worker is incapable of returning to work, but is expected to make a full recovery (Chelius, 1991). This type of injury is the most commonly reported (Thomason, 2001). In most states, the W.C. benefit is two-thirds of the pre-injury payrate. The second type of temporary disability is that of a temporary partial disability. In contrast to the temporary total disability, the partial disability allows an individual to perform light or part-time job duties (Guetsch, 2005).

The next category of injury is permanent partial disabilities. This classification occurs when a worker's condition is not expected to fully recover (Brisbin, 1990). These types of injuries are further classified into scheduled disabilities and non scheduled disabilities. A scheduled disability is one that results from the loss of a critical, but duplicated part of the body (Thomason, 2001). An example of this is the loss of a hand. Non Scheduled injuries are more ambiguous and are usually dealt with on a case by case basis. An example of this type of disability would be an injury to the head. Because the extent of these injuries can be difficult to determine, the amount of compensation that is paid is based on evidence relating to the extent of the injury.

The last injury classification is that of permanent total disability. This condition exists when the worker's injury will not allow them to adequately compete in the job market (Guetsch, 2005). In most states, these injuries are determined by the same procedure as permanent partial disabilities. What is also important to note is that these disabilities are not common in the workplace (Thomason, 2001).

Risk Management

The area of study which addresses workplace safety is referred to as Risk Management. Risk Management is the process of measuring or assessing risk and developing strategies to manage it (Encarta, 2006). The use of Risk Management provides a systematic method by which one can address problems related to risk in any business setting. Traditional Risk Management typically focuses on the risks resulting from physical or legal causes. Another extension of Risk Management deals more specifically with financial risks. This is more typically used by insurance and other financial institutions.

The Risk Management process is made up of six parts. These steps include: identification, assessment, choosing a risk treatment, developing a plan, the implementation of that plan, and evaluation (Trammel, 2004).

The first step in managing risk is identifying what risks exist. This can be done by looking for the source of frequent problems. When doing this, one is looking for the: who, what, and why a particular event is occurring (Goble, 2006).

The next step in the Risk Management process is assessment. It is in this stage where the potential severity and probability of the risk is determined. This can be calculated from statistical measures, but also through educated guesses, should statistics not be available. This can be done by using tools such as Safety Integrity Levels (SIL). The SIL is a number calculated by selecting the amount of occurrences one wishes to reduce, combined with the probability of a risk's occurrence (Goble, 2006). For example, a person may have a risk of falling down a set of stairs. The likelihood of this type of accident occurring can be low. As such, the SIL will direct one to put in a stair handrail instead of an elevator because of the low probability.

With the assessment of the risk completed, the next step in developing a risk management plan is to determine how to proceed. This can be accomplished by looking at the costs associated with the risk. If losses are low, one can choose to change nothing. If the cost of the risk is too high to ignore, one can attempt to mitigate those costs. An example of this would be placing a guard on a machine, rather than redesigning the entire machine. Another strategy one can employ is to eliminate the risk. This strategy may not always be the most sensible. It may not be possible to completely eliminate a risk, especially if the specific risk is directly connected to the core business of an organization. Also, the cost associated with the elimination of a risk may be preventative. From these options, one can begin to form a plan to address the specific risk (Wood, 2004).

The next step of the process is implementing the plan. It is at this point where one would make the changes to equipment and policies. Because changes are taking place to the way a task will be accomplished, the individuals involved with the risky behaviors may need to have new knowledge or skills. It is at this point of the process that the training of these individuals will occur. It is also important to note that depending on the specific nature of the risk, time may be of the essence. Where the risk is regulated by law, the longer the hazard exists, the more likely a business may be found negligent should an accident occur (Marshall, 2005).

The last stage of the Risk Management process is evaluation. The model of Risk Management is one that calls for continuous improvement (Trammel, 2004). Often the first approach to a problem will not correct or mitigate a risk to its optimum level. When the program has been completed, the process should begin again. In order to gauge the success of the initial plan, one will need to reassess the risk, determine whether or not the risk is at an acceptable level and resolve the problem if necessary.

Best Practices: Management Support

With the definition of injuries expanding to include a wider range of ailments, as those listed above, it becomes more necessary that business and organizations spot abuse and fraud in its W.C. program. Although programs vary between organizations and between states share common elements. These include an element of management support, having a preferred medical provider, developing an early return to work program, proper record keeping, injury investigation and mitigation procedures (Smith, 2000).

Management Support

The first element to creating or continuing a successful W.C. program is through management support. This support can come about in many different ways, depending on the specific organization. All of these programs have one specific aim, to motivate and improve workplace safety (Covaleski, 1996). In order to accomplish this, a workplace safety culture should be developed. This type of culture seeks to reduce costs associated with W.C. through the modification of employee behavior within the organization (Torres, 2006). This type of program requires management involvement. Management can provide communication functions and provide funding for the program. Management will also be required to provide positive reinforcement to workers who demonstrate positive behaviors on the job. "Excluding acts of God, 92% of all workplace accidents result from 'performance deficit,' instances where the employee knew the proper technique and had the proper equipment, but failed to comply with the established safety requirements (Covaleski, 1996)." Having management recognize and reward individuals for performing safety related tasks, will assist in cementing the prior training the workers received and induce the employees to act with greater attention to safety.

The incentives can take the shape of monetary rewards, merchandise, recognition or any combination of the above (Brisbin, 1990). With the assistance of a properly designed incentive program and management involvement, a safety conscience attitude can become instilled in an organization's structure. This attitude is the most important factor in reducing workplace accidents and injuries (Brisbin, 1990).

Medical Provider Organization

Choosing a preferred medical provider is another action an organization can take to control its W.C. costs. The most common tendency of organizations is to leave employee access to the medical system up to the third party or to an insurance carrier (Smith, 2000). Most do this because they do not wish to impede an individual's freedom of choice. It is also important to note that a combination of laws do not allow an employer to dictate what physician an employee can see (Brisbin, 1990).

An organization may prefer a specific provider over others and may suggest that injured workers see if these physicians should they be injured on the job (Guetsch, 2005). Employers are also required to have a medical treatment facility designated in the case of an emergency. Employers are also required to have a transportation plans in place to reach local hospitals, should an emergency occur (Brisbin, 1990). Doing this presents a great cost savings to an employer. Choosing a physician or a clinic to develop a professional rapport can also provide and added defense against any employee who may choose to take advantage of the system.

When an organization is looking to add a preferred medical provider to their W.C. policy, there are a couple strategies to overcoming obstacles. First, the individual responsible for the program should take the initiative in contacting local medical providers (Smith, 2000). The organization should contact other local employers and ask which medical providers they use and

how they rate their performance. One should also interview members of the provider organization. This is a good opportunity for the employer to discuss their W.C. policies, objectives and goals to the physicians. The employer can also ask the medical provider for references from other employers. Following the tasks listed above will assist the employer in developing a rapport with the medical provider. This rapport can provide an additional defense against possible W.C. fraud (Brisbin, 2001). The medical provider can yield a great deal of information regarding the true severity and cause of injuries. Knowing this will enable the employer to save money from indirect costs associated with lost time and help to identify anyone trying to beat the system.

Early Return to Work

Having an early return to work program in the overall W.C. strategy is the single practice that can yield the greatest reduction of direct costs associated with W.C. (Smith, 2000). When an employee is absent from work due to an injury, they are still paid a percentage of their previous wage (Goetsch, 2005). This percentage can change depending on the specific type of injury. In Wisconsin, for example, someone suffering a temporary total disability is paid between 60 and 75 percent of their wage until released to their previous work or to a similar position (Wisconsin Department of Workplace Development, 2007). These are not the only costs. While the injured person is at home healing, the work they typically perform still needs to be accomplished. The replacement for this employee, although temporary, still requires training. This training will require time, and cost the organization funds related to the training. These costs are not alone. The organization will also have costs related to a slow down in production due to the replacement's lack of expertise. There may also be fees from the use of a temporary employment agency (Perry, 2006).

Another reason to have an early return to work program in place is because the longer the employee is absent from the workplace, the more likely they will seek to stay out of the workplace (Van Yoder, 2000). After a long period of time, injured employees can become more comfortable not working and will seek to remain absent from the workplace. While seeking to prolong their stay at home, they may also begin building a lawsuit against the employer.

Returning an injured employee to the workplace early typically occurs in one of two methods. The first of these methods is altering the employee's current position to meet with the restrictions given by the medical provider (Goch, 1999). For example, ten percent of an injured employee's job involves heavy lifting and ninety percent involves paperwork tasks, the employee may return to an altered position that doesn't involve heavy lifting.

The second strategy for an employee's early return is to create a temporary position for the injured worker (Perry, 2006). Here, as with the first strategy, it is very important that the specific work restrictions are known to avoid further injury to the employee (Smith, 2000). This strategy requires that contingency plans be developed for positions prior to an injury occurring. These positions will then be filled by employees returning early from an injury. For example, a worker is normally required to stand at a machine for long periods of time. Following an injury, the worker has a restriction of requiring that they do not stand for extended periods of time. The temporary position the worker may be placed in could be one whose duties include more clerical tasks. This type of position will require little new training and few tasks that require standing. Having an injured employee return within four weeks of an injury and return to full duty within eight weeks can save forty to sixty percent of the cost associated with having the injured employee out of the workplace for the entire duration of the injury (Goch, 1999).

Record Keeping

Proper record keeping is an important facet to a good W.C. program. Record keeping of all employee injuries and accidents are required by law. The Occupational Safety and Health Administration (OSHA) require that all employers record information on any and all recordable injuries and illnesses annually (Guetsch, 2005). Besides the legal requirement, there are also many other practical reasons for keeping records of injuries. One of greatest of these is that record keeping allows for the identification of hazards and risks and allows a company to develop defenses against abuses to the W.C. system.

First, record keeping provides statistical data to the organization (Smith, 2000). These data can provide information regarding trends related to specific injuries and the locations these injuries take place. Have this information can provide hints as to what changes may be necessary in behavior or equipment changes may be necessary to correct these problems. For example, record keeping related to injuries associated with a particular machine may demonstrate the need for additional guards or other protective equipment. Record keeping also allows those in the safety area to concisely report their findings to upper management (Brisbin, 1990).

Injury Investigation

Almost immediately after an accident occurs, an injury investigation should take place. The purpose of the injury investigation is to determine the root cause of a workplace accident (Smith, 2000). The investigation uses a combination of witness interviews and site observation to determine what the cause of the accident. This information can then be used to determine what changes should take place to prevent future occurrences.

Investigation of near accidents can also be performed by an organization. Although this is a more proactive approach to injury reduction then the traditional injury investigation, less then five percent of employers use this technique (Brisbin, 1990). The procedure of a near accident is similar to that of a normal injury investigation, relying on witness interviews and work place observation. The near accident investigation differs in that it is a less formalized process and is less time consuming. The aim of the near accident investigation is to identify and change potential safety hazards before an accident occurs.

Mitigation

Mitigation is another step in the process of reducing costs of W.C. in an organization. This step can also be referred to as the prevention stage (Smith, 2000). It is at this step that the organization develops recommendations for workplace safety improvement. These suggestions are developed by using information taken from injury record keeping and data gathered from investigations of past accidents. The recommendations should then become actions implemented to the organization. Examples of these actions include the addition of new guards to an existing machine, additional training, and new task procedures. It is at this point that one attempts to change the organization in order to prevent future injury occurrences and in doing so prevent future W.C. costs.

Chapter III: Methodology

The case study research method is the chosen strategy for this study. The case study method is one that investigates a specific occurrence in a real life context (Yin, 1994). Also according to Robert Yin, the case study format is best used when looking at "how" and "why" questions. In addition this method is best used when the investigator has little control over events. This method is most appropriate when learning about a little known situation, examining program changes that take place over time because of certain interventions to inform and promote understanding for a similar situation (Leedy, 2001). This study meets these criteria because it will examine the specific "real life" situation where company XYZ performed a training intervention in the attempt to decrease its workers' compensation costs.

For the purposes of this study, data will be from two different sources. These sources will consist of interviews, and review of company documents.

Instruments

The first method that will be used in this study will be interviews. These interviews will ask questions regarding the development of company XYZ's move to become more efficient in the way it takes care of safety in the workplace. The interviews will also ask questions about what specific procedural changes took place in the course of the project. Information about training and how it was used will be asked as well.

The group that is to be interviewed will consist of three people. These three people are: The Plant Manager, the Manufacturing Engineering Manager and the Workers' Compensation Coordinator. These individuals made up the Steering Committee of XYZ's restructuring project. Because of their position on the Steering Committee, each will have information about the background, development, implementation, and evaluation.

The interviews will be conducted in a structured format. That is, each of the three members of the Steering Committee will be asked the same questions. These interviews will take place on a one-on-one basis. The interviews will be conducted in person or over the telephone. The in-person interview is preferred because the interviewer maybe able to observe and record non verbal cues from the participant. The telephone interviews may be necessary due to the participants' work schedule and availability. In doing so, it is hoped that a greater amount of information will be provided. The questions will be developed to uncover information pertaining to how and why the previous procedures and policies were determined to be inadequate, what methods were used to communicate these changes to employees, and what type of training was used to assist in the facilitation of these changes. To accomplish this both open ended and closed questions will be asked. The open ended questions will allow the respondent to provide greater amounts of information, especially background information and how the changes may have specifically affected their functional area. This type of questioning also allows the interviewer the opportunity to ask follow up questions that will yield more accurate interpretation of the data. A copy of these questions can be found in the appendix.

When the interviews have been completed, the notes will be analyzed to determine whether any patterns develop in their responses. These patterns will provide greater insight to what aspects were positive and which obstacles proved to be the most detrimental.

The second instrument of data collection will be a review of XYZ's documentation related to this project. Specifically, policies and procedures relating to safety and workers' compensation will be reviewed. A review of the previous policies compared with the new version will assist in identifying the changes that took place during the restructuring.

A review of workers' compensation costs will also take place. This will be done in order to evaluate the success of the restructuring. Should the workers' compensation costs decrease due to the restructuring of XYZ's safety program; the program will be deemed a success.

Limitations

These methods are not without their limitations. First, there is a limit to the amount of information that can be remembered by those involved. Because of this, there will be a limit to how much information will be received. Some of these limitations can be countered through the use of multiple interviews.

Another limitation of the study is the use of decreased costs as a factor for evaluating the success of the restructuring. Other factors, such as turnover, or changing demographics may also account for changes that could be reflected in these costs.

Chapter IV: Results

The data collection methods used in this study consisted of interviews of steering committee members and a review of company documents relating to the project. The interview process was used to determine background information regarding the development, design, implementation and evaluation of the new medical management policy. The purpose of the document review is to substantiate the accounts of the interviewees and to gather quantifiable data in order to determine the success of the program in terms of its impact on organizational costs.

The interviews took place in a face-to-face setting and on a one-on-one basis. The interviews consisted of fourteen questions. These questions were designed to obtain information regarding the need for the organizational change, how the program was designed, how training was used in its implementation, and how the program was evaluated. The following discussion will consist of a review of the interview questions, and the respondents' replies. The responses to each of the questions were recorded by the interviewer. These were later analyzed for content for each of the questions. This analysis consisted of comparing each participant's replies with the others, looking for consistency and similarities in their answers. As such, an amalgam of the interview responses is presented in this discussion.

Question 1: How did you identify WC as being a problem?

All three of the interviewees identified cost as being the most prominent identifier. Before the program's implementation, WC was the largest expense on the profit/loss statement in the category of "payroll related." In addition to the high cost of WC, Company XYZ also had a very high incidence rate of work related injuries for a company of its size. A result of this was frequent onsite inspections by the Occupational Safety and Health Administration (OSHA).

These inspections created additional costs to the organization because production would be slowed or ceased while the inspection occurred. Another reason the company sought to change their medical management policy was that they had developed a reputation within the community as being very easy in their treatment of WC. They had learned this from contacts with other area employers through professional organizations.

Question 2: How were WC claims treated prior to this program?

Previously claims were treated in a very passive manner. Employees would typically report a claim and would then sent for medical care. Although an accident report existed and required by the prior policy, it was rarely filled out completely or consistent with the demands of the prior policy. In addition to the lack of proper reporting, company XYZ also lacked case management. A formalized process for accident investigation was rarely used. The organization did not follow up with injured employees, until they were identified as a major cost. A standard measure of this amount was not established. These cases were often forwarded to the company's legal department for follow up. Company XYZ previously lacked any light duty programs. Injured employees would spend the duration of their recovery at home. All three managers interviewed identified this occurring because the management at the time viewed WC costs as being a cost of doing business and not something to be overly concerned about.

Question 3: To what extent was WC used by employees prior to the new program?

Although the interviewees could not recall the exact numbers, they stated that they thought the year prior to the implementation around a hundred recordable injuries occurred and an incident rate of approximately thirty percent. The recordable injuries are those defined by OSHA regulations. The incident rate is calculated by the dividing the total number of injuries by the total man hours worked, multiplied by two hundred thousand.

Question 4: What were the key issues driving the cost increases of WC – age, gender, etc?

The steering committee members identified three major areas they saw as influencing the usage of WC. The first of these was fraud and abuse of the established system. The injury management prior to the new program had very little oversight, and some employees chose to take advantage of this. Some reported injuries that seem unrelated to work activities. Others chose to claim an injury when they wished to take time off, after they had used their allotted vacation time.

Another reason the interviewees identified as affecting the company's WC usage was due to the general aging of their workforce. As some workers began to age, unhealthy habits from their past began to have physical effects. Some tried to claim these injuries as being work related.

The last reason the steering committee members identified included the predominantly pro-union attitudes of the surrounding community. Although Company XYZ does not have union representation, many other similar businesses in the area do have union representation. This means many of the plant workers have spouses or other family members that work for one of these other organizations. The committee members felt that this combined with a long term of employment created a culture of entitlement within their workforce.

Question 5: How did you arrive at using training as a component of reducing WC costs?

The committee members reported that the use of training seemed to be the natural choice to address the issues identified as contributing to high WC costs. Training would address the need to educate all employees on the new policies, the reasoning for the changes and the need for increased workplace safety.

Question 6: What functional areas/employee groups were involved in the creation of this program?

The interviewees reported that all employee groups had a role in the construction of the new WC program. The steering committee created the new medical management policy, with the assistance of supervisors, legal counsel, and other company divisions when additional collaboration was needed. Existing committees, such as the ergonomics and safety committees, also assisted in the design and implementation of the new policies concerning WC. These committees consisted of both management and employees of different levels in the facility. This membership rotated annually.

Question 7: Was general plant-wide training used? If so, what types?

The interview participants identified several different training programs, each serving a specific purpose in the overall organizational change at Company XYZ. A series of meetings designed to present the new medical management policy were the first to take place. A presentation was scheduled during each of the three operational shifts. All employees were required to attend. This included XYZ's management and supervisors. The meetings were moderated by the plant manager, with the other two steering committee members assisting with any questions. Employees also received a copy of the new policy to read and sign. This copy was then placed into the employee's personnel file. Those who refused to sign a copy of the policy had a notation made to the policy verifying that they had been present at the meeting and understood the policy.

In the week following the initial presentation of the new program, the members of the steering committee began an escalation of their normal practice of management-by-walking-around. This was done with the goal of reinforcing the need for the change and to allow workers

additional opportunities to ask questions. Also, the steering committee members sought to intercept and address any resistance to the changes that the workers may have had regarding the change effort.

The safety and ergonomics teams were also reorganized and reassembled. These teams investigated accidents and develop recommendations for injury reduction. The membership of these teams rotated annually. The roster of these teams included members of management, workers and supervisors. Before each took a position, they were trained on the expectations and duties of the team. These groups then undertook new projects, bringing greater safety to the workplace.

Another more passive form of training was in placing information relating to the safety program in prominent areas around the facility. This information included new corrective action plans developed by the safety and ergonomics teams, as well as miscellaneous information reminding employees to act safely on the job. Also posted was information relating to the progress the facility was making in terms of WC costs, and up to date injury rates.

The new medical management plan also included greater participation from Company XYZ's third party ergonomist. The interviewees reported that the ergonomist had previously assisted the ergonomics team and also worked on other plant projects when asked. This role was greatly expanded for the new WC program. First, the ergonomist spent time on the production floor, observing movement and functions of all workers. Next, the ergonomist toured the facility with all of the supervisors and members of management. During these tours, they discussed issues relating to the movement of employees and how better movements that would accomplish the same tasks, but with less stress on the body. Beyond developing less stressful procedures, this was done to train supervisors on what type of actions have the least amount of impact when

accomplishing certain jobs. In turn, this allowed the supervisors to pass these strategies onto other workers.

The ergonomist also served as another preventative measure. The ergonomist scheduled a period of time monthly, to visit the plant, observe people working and make himself available to answer any questions they may have. This allowed employees to ask questions and express concerns to a competent individual, who is not a company representative.

The next training element the new medical management policy presented to workers was a wellness fair. The reason behind management sponsoring this event was to bring greater awareness to employees that their life styles, not just work, can have a great influence on potential injuries. Present at the fair were representatives from area medical organizations. Participation was voluntary and every employee was encouraged to attend. Along with health related displays and the opportunity to discuss concerns with medical professionals, they also received blood pressure and cholesterol testing, free of charge.

Company XYZ also provided training to their medical care provider. The steering committee took the physicians on a tour of the facility, while in operation. Doing this allowed the doctors to view the type and intensity of the work typically completed in a work day. With the knowledge of the different types of strain and physical effort required for different positions, the doctors could more readily suggest alternate or reduced work assignments in place of time away from work.

The last type of training identified by the interviewees was the use of training videos. These videos were used when employees could not perform any other work at the facility or were required to stay home. These employees were sent training videos on a variety of topics. Each employee was required to log the time spent on each video viewed. They would continue

working through the videos until they returned to work. If all of the videos had been viewed and the worker hadn't recovered, they would then re-watch the videos.

Question 8: How did the program take to implement?

The interview participants reported that the formation of the steering committee and initial design of the medical management policy took approximately three months. The implementation of the new program and its many training programs used the following three to nine months. It was in this stage that minor changes and additions to the committee's original plan took place. Some of these additions included such things as the wellness fair and the physician tours. These programs were added to meet needs not originally foreseen.

Question 9: What approaches, other then training, were used by the program?

Disciplinary action was one of the approaches used by Company XYZ. This approach was only used only when employees sought to challenge the new policy and its outlined procedures. These actions were done within the confines of the policy.

Another approach that didn't use training involved the use of the third party ergonomist. This approach involved the ergonomist assisting in the design of new job descriptions. The ergonomist created detailed notes regarding each movement used for every position of Company XYZ. These notes were then incorporated into the job description for that position. These were then used to devise job relevant selection tests. These notes were also to be used for legal defense, should an employee challenge being turned down for coverage for an injury that was shown to non job related.

Question 10: How was this new program presented to the plant?

The steering committee members said that the new medical management policy was presented to the plant in a series of meetings. One meeting was held for each of the three

operating shifts. All employees were required to attend one of these meetings, and the committee members and other key managers were required to attend all three meetings. The new program was reviewed in detail and each employee was asked to sign a copy of the new policy, stating that they understood the changes.

Question 11: Was there resistance to its implementation? If so, how was training used to overcome the resistance?

The steering committee members reported a mixed reaction to the new WC program. Some employees' reaction was that the change was long overdue. Others were indifferent to the change taking place and some sought to test the new policy.

One method used to counteract those who sought to challenge the WC program was in the use of disciplinary action. The disciplinary actions were only used when it was done in the best interest of the company and within the context of the new policy. This policy was also enforced consistently across the company. After the first couple instances of disciplinary action being used, the interviewees reported that many other employees learned that management was determined to enforce the new program.

Training was another method used to counter act resistance. Follow-up communication was the method most utilized. Management sought to increase their presence on the operating floor of the plant. They did this to answer questions and reinforce the new WC program.

The committee also included elements of employee participation to dispel resistance. Employees are rotated into positions on the ergonomics and safety teams yearly. This was done to gain additional input on the teams' recommendations. This was also done in the belief that plant workers would be more likely to accept the changes and recommendations of the ergonomic and safety committees, if they had a part in developing those changes.

Question 12: Was continuing training used on recovering WC employees? If so, how?

The interviewees reported that whenever possible, injured employees were bought back to work early, in a light duty program. The specific job assignment varied depending on the specific nature of the injury. Injured individuals who were capable of showing up to work were expected to do so. Before undertaking the new job assignments, the injured individuals would receive training on the new duties that were expected of them. Those whose injuries prevented them from traveling outside of their home were expected to complete work related tasks. Many of these included reviewing company policies and procedures, simple clerical duties or watching training videos.

If the injury occurred through some type of work related motion, these people would have a follow up meeting with the contracted third party ergonomist. The ergonomist would provide follow up coaching on what motions are best used for the particular physical position the injured individual works in.

Company XYZ also developed a job rotation system as a part of the new WC program. Employees rotated between jobs on a particular product line. As a result of this program, each employee received training on the specifics of every job on their production line. This allows more flexibility in the plant, allows greater accommodation for an injured employee and hasten that individual's return to work.

Question 13: What measurements did you use to gauge the success of the program?

The members of the steering committee reported that three major measurements were used in the new WC policy. The measurements that were used are DART rating, incidence rating, and overall cost of WC. Each of these was used to demonstrate the overall effectiveness

of the program. The different measurements sought to provide motivation for improvement to different employee groups. For example, management's concentration rested on the overall cost of WC. Supervisors and workers concentrated more on the reduction of the incidence rates of accidents and DART rates. These measurements would concentrate more on the reduction of injuries occurring and less on the costs associated with the injury.

Question 14: Is the program still being used? If so, is it still demonstrating positive results?

The last question of the interviews asked each of the steering committee members whether the program was still in use and, if so, whether it is still demonstrating positive results. Each of the committee members responded that the new medical management policy had demonstrated very positive results. The program is still in use, as of the interviews, and has continued to be beneficial. Since the inception of the program, the medical management policy was expanded beyond the interviewed facility. The program has since become the standard policy and procedure used through out all company divisions.

Document Review

The second major component of the case study relies on the review of company project reports related to the new medical management policy. This was done to gather quantifiable information. This information was taken from the reports was then summarized into tables that will be discussed later in this section.

Table 1. Program Measurements

Key Measurements	2004 Breakthrough	2003 Implementation	Average / Year 1997 - 2002
Workers' Comp Cost Incurred & Liability	$15,372	$477,463	$1,264,650
$ / Employee	$58	$1,730	$2,592
DART Rate*	2.0%	8.4%	19.0%
Incident rate**	6.0%	16.5%	32.5%
Total OSHA Recordable Injuries	9	49	158
Total Lost Time Injuries	1	5	53
Total Number of Claims	10	62	145

* Formula: Total number of injuries that required days away or restricted transfer / Total man hours x 200,000

** Formula: Total number of Injuries / Total man hours x 200,000

The first table presents many of the key measures Company XYZ measured and documented through the implementation of its new WC program. The base line figures were gathered by taking the average of the measurements for the previous five years. Doing this developed a benchmark figure for comparison. Prior to the new medical management program, the company incurred an average WC cost of $1,264,650. This decreased to significantly the first year of the new program by thirty-eight percent, or $477,463. This further fell the following year to $15,372. This represents a one hundred and twenty-two percent decrease from the original benchmarked average.

Another measurement that demonstrated a positive result was in the company's cost savings per employee. In the five years prior to the development of the WC program, a cost of two thousand five hundred and ninety-two dollars were associated with each employee at the facility. This decreased to one thousand seven hundred and thirty dollars during the year of implementation the year of the project's implementation. The following year demonstrated a further decrease with a cost per employee of fifty eight dollars.

Company XYZ also used the DART rating system to determine success of its WC program. DART stands for days away, or restricted transfer. This is calculated by taking the total number of injuries that required days away and those requiring transfer divided by the total man hours, multiplied by two hundred thousand. The average DART rate for this plant prior to the new medical management policy was thirty-two point five percent. The implementation year this dropped to sixteen point five percent. The following year, this dropped further to only two percent. In addition to these previously discussed figures, the table also presents dramatic reductions in the incident rate, number of recordable injuries, amount of lost time injuries and total number of WC claims.

Company XYZ cataloged the amount of completed projects and interventions. These figures also demonstrate the success of the new medical management program.

Table 2. Project Interventions

Supporting Teams & Activities	2004 Breakthrough	2003 Implementation	Average / Year 1997 - 2002
Completed Ergonomic & Safety Projects	50	12	7
Accident & Near Miss Investigations	18	18	0
Ergonomist Intervention (no-further MD)	22	48	56

This table demonstrates how other components of the new WC program were implemented successfully. It also demonstrates a correlation between the numbers of projects completed with a decrease in the WC measurements. In the years previous to the new medical management program, the ergonomics and safety teams averaged seven completed projects. During the implementation year, this number rose to twelve completed projects. The following year, this grew drastically to fifty completed projects.

The table also shows how in the five years prior to the development of the new WC program, Company XYZ did not have any recorded accident or near miss investigations. This

rose as a result of the implementation of the new WC program. In the year of its implementation, the documents showed that eighteen accident and near miss investigations took place. This held for the following year, where eighteen accident and near miss investigations also took place.

Lastly, this table notes a decreased need for interventions by the ergonomist. Prior to the new WC program, the ergonomist intervened an average of fifty-six times. During the year of after a full year under the new medical management program, this further decreased to twenty-two interventions.

Chapter V: Discussion

During the late ninety's, the management of Company XYZ began to take notice of their high injury rate and the associated WC costs. To combat these costs, the facility embarked on the development of an organizational change, in order to address these costs. This case study has investigated this program, asking whether a mid sized manufacturing facility can reduce its WC costs through the use of organizational change and training. To do this, members of the XYZ steering committee were interviewed and relevant company documents were reviewed.

Limitations

The scope of this study was not without its limitations. First, the scope of the study has been limited to the reduction of costs associated with WC costs a manufacturing facility, located in Southeastern Wisconsin. Due to this, the recommendations and conclusions of this case study may not apply to other industries or other geographical locations. The interviews of this study relied heavily on the recall of the interview participants.

Conclusions

The methods Company XYZ used in the design of their new medical management policy were consistent with the elements discussed in the literature review. These elements included management involvement, a medical provider organization, and early return to work program, proper recordkeeping, injury investigation, and a mitigation program.

The literature review provided information about the importance of management's involvement in the creation and implementation of a program. This was also true in the case of Company XYZ. Although three central XYZ managers were responsible for the initial design of the program, they also brought in other managers and supervisors when their assistance or

expertise was required. These additional contacts created a program that met the needs of both the business and workers. An example of this is the addition of a wellness fair. This idea can be witnessed in the make up of the safety and ergonomics teams. These groups included the participation of both management and workers. This allowed all managers and supervisors to voice their opinions and to directly influence the safety of the facility.

Another element the literature review suggests is having a preferred medical provider organization. The company suggests that any injured employees visit that specific provider. Over time a rapport between the medical organization and the company should grow. Company XYZ already had a preferred medical provider in place prior to designing the WC program. XYZ took the idea of a rapport in a different direction then suggested in the reading. Here, the program designers thought the rapport with their medical organization was already good. Instead, the designers thought the medical provider members lacked knowledge of what tasks workers at XYZ performed in a normal work day. In this instance, the company built further rapport by training the medical practitioners. In doing this, they are now able to reap the rewards of more accurate diagnosis and information relating to the disability.

The next major element identified in the literature review is having an early return program in place. The review identified these programs with having the greatest effect on direct costs associated with WC. Prior to the implementation of the new WC program, Company XYZ had no early return program for injured employees. This meant that XYZ still paid sixty to seventy percent of the injured employee's pay while absent from work. Following the implementation, XYZ changed their philosophy on this subject. Depending on the nature of the injury, the injured employees are shifted to another job at the facility. If they can not make it to

the facility, they are still expected to take part in some type of work related activity. These are often simple filing, reviewing policies or watching training tapes.

Recordkeeping was another element that the literature review identified as being an important component to a proper WC policy. Besides being required by law, this information can be used to pinpoint specific areas where improvement may be necessary. Before the rollout of the new WC policy, Company XYZ identified that the majority of their recordkeeping was aimed at meeting the legal obligations. With the initiation of the new program, recordkeeping information was forwarded to the safety and ergonomics committees. Armed with this information, they would then formulate strategies and corrective actions. In addition, the new policy was also written with specific guidelines, meant to insure that the proper information is collected.

Another activity discussed in the literature as being important to administering WC is a properly executed injury investigation. This is important because one can use the investigation to determine the root cause of the injury. In doing so, the organization can create solutions so that the injury doesn't happen again. Before the implementation of the new medical management policy, XYZ performed very few injury investigations. Although there were policies established requiring that forms be filled out in full, this was rarely done in practices. Aside from developing disciplinary measure associated with filling in all necessary information, they also began conducting injury investigations of near miss or close call accidents. According to the literature, the purpose of these investigations is to take a more proactive role in addressing possible injuries. The goal of these is to identify hazards and correct them before an injury occurs.

The last major component to a successful WC program identified in the literature is called mitigation. According to the reading, it is at this step that an organization uses all of the information that had been collected and develops recommendations as to what changes must occur. In the case of company XYZ this task was completed by the members of the safety and ergonomics teams. These groups performed investigations of injuries and accidents to determine what changes in terms of machine layout, guarding and procedures can be changed to make the workplace safer.

Recommendations

Although it has been established that the findings of this study can not be reliably generalized outside of this facility, this case study presents many opportunities for further research. One area where further research is needed would be a study involving multiple facilities operating within the same industry, in the same and different regional areas. Another area where more research is needed is in difference of WC costs between different industries. This study also did not conduct any research as to what specific components had the greatest impact on the large reduction of WC costs demonstrated in this case. This too, is an opportunity for future research.

References

Bohlander, George, Snell Scott (2004). *Managing Human Resources* (13th Edition). Mason, Ohio: Thompson south-western.

Brisbin, Robert E. (1990). *Loss Control for the Small to Medium Size Business.* New York: Van Nostrand Reinhold.

Chelius, J.R. (1991). Role of Workers' Compensation in developing safer workplaces. (cover story) *Monthly Labor review*, 114(9), 22 – 25.

Covaleski, J. (1996). The value of workplace $afety. *Best's Review/Property-Casualty Insurance Edition*, 97 (1), 32.

Goble, W., & Krumwiede, S. (2006). Assess Risk. *Control Engineering*, *53*(1), 52-56. Retrieved Monday, December 10, 2006 from the Business Source Elite database.

Goch, L. (1999). Working toward a Speedy Recovery. *Best's Review/Property-Casualty Insurance Edition*, 100 (3), 73.

Guetsch, David L. (2005). *Occupational Safety and Health for Technologists, Engineers, and Managers* (5th edition). Upper Saddle River, New Jersey: Pearson Prentice Hall.

Leedy, Paul D., Ormrod, Jeanne E. (2001). *Practical Research: Planning and Design* (7th edition). Columbus, Ohio: Merrill Prentice Hall.

Marshall, A. (2005). Accident prevention programs should have 'rewarding' results. *Hotel & Motel Management*, *220*(18), 8-8. Retrieved Monday, December 11, 2006 from the Business Source Elite database.

Petersen, Dan (2003). *Techniques of Safety Management: A Systems Approach.* Des Plains, Illinois: American Society of Safety Engineers.

Perry, P.M. (2006). Controlling Workers' Comp. *Industrial Distribution*, 95(1), 43-46.

Risk Management. In *MSN's Encarta Online Encyclopedia.* Retrieved December 2, 2006, from http://encarta.msn.com/encnet/refpages/search.aspx?q=risk+management&Submit2=Go

Smith, A., & Kaplan, H. (2000). A Proactive Approach. *Occupational Hazards*, 69(10), 172.

Thomason, T., Burton Jr., J.F., Hyatt, D.E., Roman, P.M., Blum, T.C., & Lee, B.A., et al. (1998). New Approaches to Disability in the Workplace. *Labor Law Journal*, 49(7), 1175 – 1187.

Thomason, Terry, Schmidle, Timothy., Burton, J.F., Jr. (2001). *Workers' Compensation: Benefits, Costs, and Safety under Alternative Insurance Arrangements*. Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research.

Torres, K. (2006). Tuning Workers into Safety Training. *Occupational Hazards*, 68(11), 29-32.

Trammell, S., Lorenzo, D., & Davis, B. (2004). Integrated Hazards Analysis. *Professional Safety*, *49*(5), 29-37. Retrieved Monday, December 10, 2006 from the Academic Search Elite database.

Van Yoder, S. (2000). Here's how to Keep a Lid on Worker's Comp Costs. *Frozen Food Age*, 48(8), 42.

Wisconsin Department of Workplace Development. *Plain Language Summary of Wisconsin Act 172-2005: Amendments to the Worker's Compensation Act.* Retrieved February 25, 2007, from http://dwd.wisconsin.gov/wc/legal/2005act172_plain.htm

Wood, R. (2004). Machine Safety Strategy & Risk Assessment. *Professional Safety*, *49*(8), 44-47. Retrieved Monday, December 10, 2006 from the Academic Search Elite database.

Yin, Robert K. (1994). *Case Study Research: Design and Methods* (2nd Edition). Thousand Oaks, California: Sage Publications, Inc.

Appendix A: Interview Questionnaire

The Use of Training to Decrease Worker Compensation Costs in a Mid-Size Manufacturing Plant
Interview Questionnaire

1. How did you identify WC as being a problem?
2. How were WC claims treated prior to this program?
3. To what extent was WC being used by employees prior to program implementation?
4. What were the key issues driving the cost increases of WC – i.e. age, gender, smoking, etc?
5. How did you arrive at using training as a component of reducing WC costs?
6. What functional areas/employee groups were involved in the creation of this program?
7. Was there general plant wide training used?
    a. If so, what types – Posters, meetings, etc?
8. How long did the program take to implement?
9. What approaches, other then training, were used by the program?
10. How was this new program presented to the plant?
11. Was there resistance to its implementation?
    a. If so how was training used to overcome this?
12. Was continuing training used on recovering WC employees?
    a. If so, how was this done?
13. What measurements did you use to gauge success of the program?
14. Is the program still being used?
    a. If so, is it still demonstrating positive results?