Author: Rhiel, Kristan. M

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STUDENT:

   NAME Kristan Rhiel **DATE:**

ADVISER: (Committee Chair if MS Plan A or EdS Thesis or Field Project/Problem):

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Rhiel, Kristan, M. *A Guide for Best Practices of Safety Training in the Hispanic Workforce*

Abstract

It is important for businesses to appropriately communicate the expectations and rules of the job in worker training. Difficulties arise when training cannot be communicated effectively across various worker ethnicities, especially Hispanics. Safety training becomes even more crucial to communicate effectively to new workers due to the severity of the consequences of being unsafe. The purpose of this study is to develop safety training guidelines targeted towards a Hispanic workforce, incorporating cultural gaps and communication barriers. With the increasing Latino worker population, safety training programs must be better customized in order to address the barriers and challenges that are presented with daily work tasks. It is important to follow certain guidelines in order to increase the potential for successful safety training of Latino workers. This report will cover the thorough data collection of common challenges of training Hispanic workforces as well as best practices for overcoming some of the identified challenges through primary and secondary research methods.

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Chapter I: Introduction

Occupational injuries, fatalities, and other safety issues are a primary concern in United States industry (Iowa State University's Center for Transportation Research and Education, 2006). Certain sectors of industry yield a greater potential for injuries and fatalities including construction, mining, manufacturing, and agriculture. Many Hispanic workers, unskilled and often illegally residing in the United States, land some of the most dangerous jobs in the country such as agriculture, construction, and roofing (*Hispanic workers face more dangerous conditions,* n.d.). Most work jobs with lower pay but have a higher potential for injuries at work than any other worker (Solis, 2010). "In California, Hispanic workers are 50% more likely to die on the job than a non-Hispanic worker" (*Hispanic workers face more dangerous conditions,* n.d.). Paying more attention to the safety and health of Hispanic workers may reduce the number of injuries and increase the sensation of a safe work culture (Brunette, 2005).

Today in the United States, Latinos are the fastest emerging ethnic population coming in at 22.4 million in 1992 (*The story of Hispanics in the Americas*, n.d.). It is predicted that by 2050 Latino population in the United States will make up close to twenty-five percent of the whole population (The Latino labor force at a glance, 2012). As recently as 2009, the Latino population reached close to twenty-three million and comprised fifteen percent of the labor force (*The Latino labor force at a glance,* 2012). It is expected that by 2020, Latino workers will make up 19 percent of the United States workforce (*The Latino labor force in the recovery,* n.d.).

With the increase of Latino population and Latino workers, also comes greater potential for incidents at work Latino workers in the United States die from workplace injuries at a far higher rate than any other workers (Greenhouse, 2001). In 2010 there were 774 fatal work injuries to foreign-born workers and 38% of those were suffered by workers of Latino origin (US

Department of Labor, Employment and Training Administration, n.d.). One of the main reasons for the increased high rate of injuries among this group is the various barriers Latino workers face while being integrated into the United States workforce. More than two in five Latinos, 25 or older, have not graduated from high school (US Department of Labor, Employment and Training Administration, n.d.) and nearly half of immigrants in the United States are considered to have limited proficiency in English (*The Latino labor force at a glance.* 2012). Language and education barriers are not the only hurdles for Latino workers in United States industry. Cultural differences also play a large role in effective communication and understanding. Casual safety enforcement, Machismo, and feeling the need to say "yes" no matter what are just a few of the cultural differences United States industries face (Schleifer, 2008).

Inappropriate safety training is one of the main contributing factors for the increasing number of accidents for the Latino workforce (*American Society of Safety Engineers,* n.d.). OSHA and the American Society for Safety Engineers (ASSE) are some of the various organizations that provide materials available in Spanish for use in workplace. However, various training methods seem to be lacking, especially when it comes to safety (Iowa State University's Center for Transportation Research and Education, 2006).

Statement of Problem

It is important for businesses to appropriately communicate the expectations and rules of the job in worker training. Difficulties arise when training cannot be communicated effectively across various worker ethnicities, especially Hispanics. Safety training becomes even more crucial to communicate effectively to new workers due to the severity of the consequences of being unsafe.

Purpose of Study

The purpose of this study is to develop safety training guidelines targeted towards a Hispanic workforce, incorporating cultural gaps and communication barriers. With the increasing Latino worker population, safety training programs must be better customized in order to address the barriers and challenges that are presented with daily work tasks. It is important to follow certain guidelines in order to increase the potential for successful safety training of Latino workers.

Goals of the Study

The objectives of the study include:

1. Identify specific difficulties professionals have encountered while working with a Hispanic workforce.

2. Collect professional best practices of effective safety training for Hispanic workers.

3. Develop safety training guidelines incorporating the best practices that consider the specific challenges that have been previously identified

4. Use the determined guidelines to evaluate Spanish safety training materials

Assumptions

1. Research will provide ample information on safety training efforts for Hispanic workforces.

2. The guidelines will not be used as a cure all for high injury and fatality rates of Latino workers.

Definition of Terms

To provide clarity and basic understanding of the material to the reader. The terms used in this research are defined as follows:

Hispanic. Hispanic is a term relating of or to the people, speech or culture of Spain and Portugal. It can also mean relating to, or being a person of Latin American descent living in the United States (Merriam-Webster Online Dictionary, 2012)

Latino. Latino is a term given to natives or inhabitants of Latin American which includes Central and South America. It is also a term given to a person of Latin-American origin living in the United States (Merriam-Webster Online Dictionary, 2012)

Machismo. Machismo is a term used in the Hispanic culture that refers to having a strong sense of masculine pride: an exaggerated masculinity: exhilarating sense of power and strength (Merriam-Webster Online Dictionary, 2012).

OSHA. OSHA stands for Occupational Safety and Health Administration. OSHA is the main federal agency charged with the enforcement of safety and health legislation (osha.gov, n.d.).

OSHA eTools: eTools are a function of the OSHA website that helps identify and control the hazards that commonly cause serious injuries in the construction industry. (osha.gov, n.d.).

Recordable incident/injury. A recordable injury is an occupational injury or illness that requires medical treatment more than simple first aid and must be reported (osha.gov, n.d.).

Limitations

To investigate safety training programs for Hispanic workforces that are in use requires relying on contacted employees who are willing to share information in a timely manner.

Breaking language and cultural barriers is a large task and there may be challenges in finding training solutions for every cultural or language difference or difficulty.

These guidelines may not work for every work environment.

Methodology

This report covers the thorough data collection of common challenges of training Hispanic workforces as well as best practices for overcoming some of the identified challenges through primary and secondary research methods. Structured interviews were conducted to obtain professional information on common challenges and best practices in training a Hispanic workforce. Online research was also conducted to obtain this information. The collected information was used to develop a safety training guidelines that incorporates best practices for training Hispanic workforces. The guidelines were used and applied to analyze the Spanish version of the OSHA eTool for Falls material provided in Spanish on the OSHA website and improvements were suggested.

Chapter II: Literature Review

With the increasing Latino worker population, safety training programs must be better customized in order to address the barriers and challenges that are presented with daily work tasks. It is important to follow certain guidelines in order to increase the potential for successful safety training of Latino workers. The purpose of this study is to develop safety training guidelines targeted towards a Hispanic workforce, incorporating cultural gaps and communication barriers. This next section will discuss related literature that addresses requirements for general workplace training, specific job training, components that make up good training, common issues with training Hispanic workers and approaches to understanding cultures.

Requirements of General Workplace Training

It is important for new employees to be trained on the generalities of the facility and business culture during the beginning of employment. Many companies require specific information to be conveyed regarding training and equipment specificities in order to safely protect the employees from incidents at work (*Training, supervision and protection,* n.d.). The following section will provide an overview of some general workplace training including; defining workplace goals and objectives, an overview of some general employment laws and regulation applicable to the workplace, general workplace safety addressing basic safety hazards and procedures, and job specific safety training.

Workplace Goals and Objectives

General workplace training can cover a variety of topics, but one important topic that should be covered is the goals and objectives of the organization. An important factor in workplace training is having the full support and involvement of management (*How to conduct*

an effective training session - employee training, n.d.). With the support of management, company goals and objectives can clearly be defined and implemented throughout all procedures, including training (Toren, 2010). Company goals and objectives that are represented through training can help employees feel valuable to the company as their productivity helps meet personal as well as defined company goals (Toren, 2010).

General Employment Laws and Regulations

Specific topics should be addressed in the general workplace training including general employment laws and regulations. The organization must first determine the specific training needs before implementing the training. The general training should meet the needs required by the nature of the workplace (*How to conduct an effective training session - employee training,* n.d.). An example of various common employment laws and regulations might include; OSHA specific training standards specific to work tasks, sexual harassment policy and procedures of what to do in the event of it happening, training on diversity, the organizations expectations on the code of ethics policy, and American's with Disabilities (*How to conduct an effective training session - employee training,* n.d.). These are just a few of the possible training topics that may be required for an organization.

General Workplace Safety

OSHA states that every organization shall be responsible for providing necessary information, directions, and supervision to ensure the protection of worker safety and health (*Training, supervision and protection,* n.d.). Basic safety concerns and procedures that will be covered include; specific company safety rules, emergency preparedness, procedures for in the case of an injury, and location of specialized safety equipment and their use.

The common purpose for general safety rules is to ensure a safe and healthy environment to protect the employees and the rest of the organization's assets through training, compliance, and enforcement (*General workplace safety rules*, n.d.). It is crucial that general safety rules are communicated sufficiently to all employees by means such as; the new hire orientation, the organization's handbook, various postings in appropriate locations throughout the facility, annual review training, and immediate feedback or corrections during work tasks (*General workplace safety rules*, n.d.). Figure 1 represents an example of common general safety rules that could be implemented within an organization.

GENERAL SAFETY RULES

1. Report all work injuries and illnesses immediately

2. Report all Unsafe Acts or Unsafe Conditions to your Supervisor

3. Use seat belts when on Company business in any vehicles

4. Firearms, weapons, or explosives are not permitted on Company Property.

5. Use, possession, sale or being under the influence of illegal drugs, misuse of prescription drugs and/or alcohol is not permitted on Company Property or while "on duty".

6. Only authorized and trained Employees may repair or adjust machinery and equipment. Lock and Tag Out Procedures must be followed before removing any machine guards or working on powered machinery and equipment. Replace all guards when the job is completed.

7. Only qualified and trained Employees may work on or near Exposed Energized Electrical Parts or Electrical Equipment. Follow Electrical Safety Rules when working with electrically powered machinery and equipment.

8. Only authorized and trained Employees may enter a posted Confined Space. All confined spaces will be posted *Confined Space - Permit Required*. Entry is allowed only after permits are properly issued.

9. Only authorized and trained Employees may dispense or use chemicals. It is your responsibility to know where MSDS's are located and that they are available for your use and review.

10. Keep work areas clean and aisles clear. Do not block emergency equipment or exits.

11. Wear and use the prescribed Personal Protective Safety Equipment. This includes foot protection, head protection, gloves, etc.

12. Smoking is permitted only in the designated "Smoking Areas".

Figure 1. General safety rules (General Workplace Safety Rules, n.d.).

General safety rules are developed and implemented with the intention of complying with the General Duty Clause of the OSHA Act of 1970 Sec. 5, which states that employers shall

provide a place of employment that is protected from identified hazards that have the potential to cause physical harm or death to the employees (Occupational Safety and Health Administration, n.d.). Other forms of general workplace safety information that should be provided include emergency preparedness procedures. OSHA also provides guidance and requirements for integrating emergency preparedness policies and procedures within an organization. The necessary compliance to these requirements will depend on the nature of the organization. The OSHA emergency preparedness standards provide specific procedural and equipment requirements as well as training requirements for various topics (Occupational Safety and Health Administration, n.d.). Common topics that require compliance include; design, construction, maintenance, and safeguards for exit routes, fire extinguishers, alarm systems, action plans for emergencies and fire prevention, and storing and handling of hazardous chemicals or materials (Occupational Safety and Health Administration, n.d.). Worker training on these topics must be completed in accordance with the set standards.

Included in the OSHA standards for emergency response is also the requirement for handling workplace injuries. Adequate medical services and first aid supplies need to be available to all workers in the event of an incident (Occupational Safety and Health Administration, n.d.). This standard also requires that organizations have a well-developed system in place that will competently handle workplace injuries. Training employees expected to administer first-aid is the training requirement for this standard (Occupational Safety and Health Administration, n.d.).

In order to reduce employees' risk of hazard exposure, OSHA requires the use of specific personal protective equipment (PPE) (*Safety and health topics: Personal protective equipment (PPE)*, n.d.). Organization's should develop and implement a PPE program addressing the

specific presented hazards; how to maintain, use and select proper PPE; training requirements; and evaluation of the program (*Safety and health topics: Personal protective equipment (PPE)*, n.d.). Some common PPE standards include; ventilation, noise, eye and face protection, respiratory protection, hand and foot protection, and electrical protective devices (*Safety and health topics: Personal protective equipment (PPE)*, n.d.).

Job Specific Safety Training

In addition to general workplace safety, job specific safety training must also be provided to protect the health and safety of an organization's employees. Job specific safety training should be provided during new hire orientation or when major changes to the job occur (*Training*, n.d.). OSHA provides specific job safety requirements for various sectors of industry including general industry, construction, maritime, agriculture, and recordkeeping (Occupational Safety and Health Administration, n.d.). OSHA also provides standards pertaining to all the various hazards found in the workplace as well as training and necessary PPE for the work. Some of the most accessed identified general industry OSHA standards include; blood borne pathogens, hazard communication, respiratory protection, noise exposure, powered industrial trucks, confined spaces, and lockout/tagout (Occupational Safety and Health Administration, n.d.). Job safety training is more than just highlighting key points and giving instructions about the job (Lund, n.d.). Job safety training involves analyzing and identifying safety hazards, communicating hazards, and developing systematic procedures for treating the hazards (Lund, n.d.).

Components of Good Training

It is crucial for worker training to be effectively delivered and understood in the workplace. Training can essentially contribute to the long-term productivity of a business by

influencing the productivity and contentment of the employees through good training (Toren, 2010). Focusing on the development of employees skills will allow for the ability to retain good employees and ensure they are performing to the best of their ability which potentially results in financial gain for the business (Toren, 2010). In order to develop good training it is important to focus on three major components including the message or content, media or technology methods, and the trainer or delivery (Bingham, 2013).

Training Message or Content

It is important for the content of training to be easily understood by all employees. The Occupational Safety and Health Administration (OSHA) provides a training standard policy statement that says training must be presented in a manner that the receiving employee is capable of understanding (Occupational Safety and Health Administration, 2010). The workplace is made up of a variety of employees with many different backgrounds and capabilities. Age, culture differences, linguistic backgrounds, intellectual abilities, ethnicity and race are a few of the areas that vary greatly within the workplace (*Workplace diversity strategy,* 2011). The volume of variation presented expresses the need for content that is easy to understand.

It is also important for the content to cover main important topics or leaning objectives. Effective training can be reached through content that explains the purpose of why the employees need training and how it will affect their job (Burley, n.d.). It is also common for training to focus on answering the question of "what's in it for me" (Labbe, 2008). The training content should reflect the main goals and objectives of the business and relate to the actual nature of the work (Burley, n.d.). This may include an explanation of various changes to behaviors or skills and how they can be improved and refined, relating to the specific goals of the business

(Toren, 2010). This will allow for effective employee engagement as well as a better understanding of the training material (Burley, n.d.).

Organization is also a crucial component to developing effective training content. It is important for the content to provide an overview, addressing the main objectives for the training (*How to conduct an effective training session - employee training,* n.d.). Each main section of the training should explain key points, discuss policies, demonstrate the procedures, and cover any additional information that is required (Burley, n.d.). It is also important to use repetition throughout the training content to allow for better retention of the information (*How to conduct an effective training session - employee training,* n.d.). Finally, before administering the training, various organizational components should be considered including location, facilities, accessibility, comfort, equipment, and timing (Toren, 2010). Timing is especially important in that the training is organized enough to start and end at the designated time, allowing for adequate breaks especially for longer training sessions (*How to conduct an effective training session - employee training,* n.d.)

Media or Technology Use

Using only one method of training is not adequate for training all employees in all the various positions of a business, instead a blend of training methods such as computer-based, interactive learning and other such methods has been found more effective (Huebsch, n.d.). The use of various media and technology, aids in the presentation of the material allowing for the trainees to use multiple important senses such as audio and visual to effectively retain the necessary information (*Instructional aids and training technologies,* 2003). The following three media and technology methods will be explained in depth; the use of power-point slides, displaying photographs or graphics to represent main ideas, and the use of supporting videos.

PowerPoint slides can be an efficient start for presenting training materials when they are used correctly. It is important to focus solely on capturing the main concepts of the training using clear and concise language to ensure that the brain does not become overstimulated with information (*Instructional aids and training technologies,* 2003). PowerPoint slides should not include long passages of information but rather a highlighting of key points to stress important concepts. A survey was completed in 2011by Dave Paradi addressing top frustrations in the use of PowerPoint. The top five frustrations and the percentage of respondents that selected them as their top three are as follows; 73.8% said the speaker reads off of the slides, 51.6% said full sentences instead of bullet points were used, 48.1% said that the text was so small it was illegible, 34.0% said that slides were hard to see because of color choice, and 26.0% said that overly complex diagrams or charts were used (Paradi, n.d.). PowerPoint presentations should be designed with the consideration of two important factors: having a purpose and keeping it simple (*Visualization in participatory programs,* 1993). The use of hyperlinks is also a good strategy when key concepts need to be reiterated multiple times for review, allowing for the use of additional media methods to be incorporated to better retain information (*Visualization in participatory programs,* 1993). The information on the PowerPoint slides should be organized in straightforward and useful bits or chunks allowing for installment into the memory and the ability to easily retrieve it (*Instructional aids and training technologies,* 2003).

Pictures, diagram, charts and other graphic materials are also useful forms of training media to present necessary information. Pictures are especially important as they provide realistic recognition to the visual sense, graphically instilling important details for the subject matter (*Instructional aids and training technologies,* 2003). Sight has been found to have the highest percentage as the sense used for taking in information from the environment at 83%

followed by hearing at 11%, smell at 3%, touch at 2%, and taste at 1% (*Visualization in participatory programs,* 1993). Graphical representations of information allow for emphasis to be placed on what important information is being described at a particular time (*Visualization in participatory programs,* 1993).

Videos are also another significantly popular visual aid utilized in training sessions (*Instructional aids and training technologies,* 2003). Videos are often described in two separate forms, passive video and interactive video. Passive videos refer to the form of video that explains or aids a concept using motion picture and animation whereas interactive video differs in that the motion picture or animation is a result of options selected by the user (*Instructional aids and training technologies,* 2003). Both methods allow for the viewer to experience a realistic visual example that applies to important information being conveyed. Training videos are becoming an increasingly popular method for training as it allows for customization to incorporate specific topics and also allows the viewer to learn at their own pace by being able to pause and rewind certain sections that may need additional review (*The benefits of using a training video,* n.d.). However, it is argued that video training should not fully replace an instructor as often times videos can be viewed in a passive manner not allowing for the information to become fully absorbed into the memory (*Instructional aids and training technologies,* 2003). The combination use of PowerPoint presentations, photographs, display media and videos is the most effective use of technology and media as it incorporates information gathering through multiple senses increasing the ability to learn (*Visualization in participatory programs,* 1993).

Content Delivery

The way in which people learn through different senses is an important idea to consider when delivering training content. Delivery of training content should incorporate the following ideas which will be thoroughly examined in this section; engaging the training participants, delivering the content utilizing a variety of communication styles, and using professionally prepared presentation skills.

The amount of time spent on presenting new training material to trainees should constitute approximately one third of the total training time and the remainder should be geared towards trainees applying or practicing the new material (*Visualization in participatory programs,* 1993). Utilizing the various media and technology methods mentioned previously will help the trainees to remain engaged with what is presented (*Visualization in participatory programs,* 1993). Keeping the trainees engaged allows for assurance in that the information is being retained and not passing through the memory (Huebsch, n.d.). Various training communication methods result in different levels of learning. Figure 2 demonstrates retention rates using various methods to convey information.
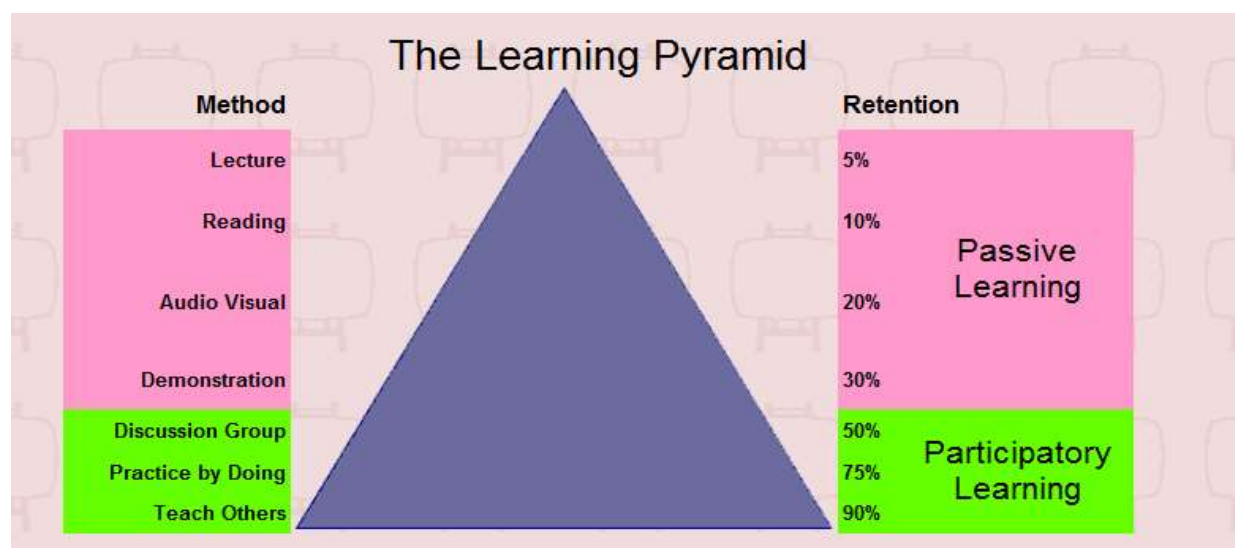

Figure 2. The learning pyramid (Motorola University, 1996)

The more engaging methods of teaching or training including discussion groups practice by doing and teaching others resulted in a significantly higher retention rate when compared to various other passive learning methods.

By incorporating various forms of communication methods, higher rates of retention can be achieved due to participatory learning which involves a greater level of refection and perceptive processing (Hall, 2002). Using realistic situation examples that resemble the nature of the work helps trainees with the ability to transfer the skills developed in training to their work (Labbe, 2008). The next form of communication method that should be used is demonstration. It is crucial for training to provide step-by-step demonstrations for various job procedures. The demonstration method possesses the highest rate of retention for the passive learning category on the Learning Pyramid. This method may include testing or evaluating so that the mastery of the information can be proven (Labbe, 2008) and thus result in a higher retention rate on the learning pyramid. A final form of communication method should involve feedback or answers to questions to ensure a sufficient understanding of the content. This can be provided at various times throughout the demonstration or evaluation process including during the application, after the application is complete, and when the trainees are applying the application to the real work (*Visualization in participatory programs,* 1993). Feedback should also be provided as a way for trainees to express their feelings about the training. This will allow for additional training needs to be identified and the ability to implement the proper adjustments (Toren, 2010).

The final idea to consider is the professional manner in which the material is presented. It is important for the trainer to practice professional presentation skills in order to create a training environment that encourages learning and represents the importance of the training to the trainees (*How to conduct an effective training session - employee training,* n.d.). It is crucial

for trainers to possess some of the following characteristics in order to increase training effectiveness; the ability to possess good communication skills, knowledgeable in the specific training material, patient, open-minded, well-prepared, and flexible (*How to conduct an effective training session - employee training,* n.d.). These characteristics will allow for sufficient training that conveys the important concepts and topics necessary to learn.

Safety Training Issues for Hispanic Workers

The Hispanic population in the United States is continuing to grow and currently holds the position as the country's largest ethnic minority group (Ratcliff, 2003). Hispanics continue to come to the United States in search for work and tend to land some of the most dangerous jobs (Ratcliff, 2003). The training for Hispanic workers appears to lacking when it comes to safety (Iowa State University's Center for Transportation Research and Education, 2006) creating an increased risk potential for injuries and fatalities (McGlothlin, 2009). This section will address the injury and fatality rates among Hispanics as well as the common safety issues they face.

Hispanic populations that come to the United States for work provide valuable contributions to various industries as they work specific general labor jobs such as machine operating and general labor in the construction field (Iowa State University's Center for Transportation Research and Education, 2006). This significant population growth of Hispanics in the United States has presented several challenges with language and cultural barriers for many companies, especially those in construction (Iowa State University's Center for Transportation Research and Education, 2006). Additionally, the rapid growth of Hispanic workers has caused many managers to fall behind on updating their management methods (Ratcliff, 2003).

The training of Hispanic workers appears to be one of the main inadequacy issues especially when it comes to safety. In 2000, the Bureau of Labor Statistics reported that the number of fatalities among Hispanic construction workers increased 24% while the overall number of construction fatalities decreased 3% (Ramirez & Cruz, 2003). Additionally in 2005, the US Hispanic Contractors Association reported that the number of fatalities among Hispanic construction workers increased 25%, while the overall number of construction fatalities increased by 6% (Cortez, 2007). The increasing number of fatality and population rates of Hispanics had caused for an increased demand in bilingual implements (Iowa State University's Center for Transportation Research and Education, 2006).   Various organizations such as OSHA, the Environmental Protection Agency (EPA), and the American Society for Safety Engineers (ASSE) provide informational materials in Spanish for use in workforces with large Hispanic populations.

Approaches to Culture

"Culture is a shared meaning system found among those who speak a particular language dialect, during a specific historic period, in a definable geographic region" (Iowa State University's Center for Transportation Research and Education, 2006, p. 7). Efforts have been made in attempts to better understand the idea of cross-cultural management due to the need to integrate cross-cultural training (Iowa State University's Center for Transportation Research and Education, 2006). Several researchers have developed various methods for understanding cultures including Hall's focus on high and low contexts, Trompenaar's explanation of dimensions of culture, and Hofstede's approach to research on culture (Nahavandi 2003; Hampden-Turner et al., 2000),which will be focused on in depth in this section.

Geert Hofstede categorized culture into five different groups which he titled, "dimensions" (Iowa State University's Center for Transportation Research and Education, 2006). The five dimensions of Hofstede include; power distances, individualism versus collectivism, masculinity versus femininity, uncertainty avoidances and long-term versus short-term orientation (Dimensions, n.d.).

Power Distances

The dimension of power distances focuses on the idea that individuals are not equal. A large power distance represents a society with a hierarchal order in which each individual has a certain place. Low power distances represent a society where the power is attempted to be leveled (Dimensions, n.d.). Hispanics tend to have a higher power distance accepting the idea of hierarchal order or the power is distributed disproportionately (Dimensions, n.d.).

Individualism Versus Collectivism

The idea of this dimension is interdependence where individualism represents the expectation of individuals to take care of themselves and their immediate families and collectivism represents the expectation of others to take care of them in exchange for loyalty (Dimensions, n.d.). Hispanics tend to have a low or collectivism approach for this dimension, where strong, loyal relationships are present and everyone takes care of fellow members of the group (Dimensions, n.d.).

Masculinity Versus Femininity

This dimension of Hofstede refers to the preference to relate to one gender or another. Masculine traits such as achievement, heroism, assertiveness and being rewarded for success define masculinity; and collaboration, humility, the trait of caring for the weak, and quality of life define femininity (Dimensions, n.d.). Hispanics tend to fill the masculinity dimension where

individuals feel they fulfill life by working, focus on competition and material success, and fighting resolves disputes (Dimensions, n.d.). This dimension represents a similar comparison between Hispanic culture and the American culture (Iowa State University's Center for Transportation Research and Education, 2006).

Uncertainty Avoidance

The uncertainty avoidance dimension is based on the idea of controlling the unknown. Strong uncertainty avoidance represents a stricter environment where the outcome of the unknown can be controlled by avoiding unnecessary risks (Dimensions, n.d., Iowa State University's Center for Transportation Research and Education, 2006). Weak uncertainty avoidance is more accepting to the idea of uncontrollable future; therefore take each day for what it's worth (Iowa State University's Center for Transportation Research and Education, 2006). Most Hispanics tend to possess weak uncertainty avoidance as they are more relaxed about formal rules and structure.

Long-Term Versus Short-Term Orientation

This dimension represents how individuals value the use of time. In a long-term orientation, individuals tend to focus more on a sustainable future by conserving and determination. In contrast, a short-term orientation tends to focus on the past and present by honoring traditions and meeting social commitments (Iowa State University's Center for Transportation Research and Education, 2006). Hispanics tend to possess a short-term orientation of time as they are more relaxed about deadlines (Iowa State University's Center for Transportation Research and Education, 2006).

Comparing and understanding these cultural dimensions can add value when attempting to implement a cross-cultural management. Table 1 demonstrates cultural aspect differences in

management styles between the Hispanic and American cultures in the workplace. Analysis of this data can allow for a better understanding of cross-cultural management between both cultures.

Table 1

Comparison of Management Styles Between Hispanic and American Cultures According to

Hofstede

Cultural Aspect	Hispanic Cultures	American Culture
Work/leisure	Work to live. Leisure considered essential for full life. Money is for enjoying life.	Lives to work. Leisure seen as a reward for hard work. Money often ends in itself.
Direction/delegation	Traditional managers. Autocratic. Younger managers begin by delegating responsibilities. Subordinates accustomed to being assigned tasks, not authority.	Managers delegate responsibilities and authority. Executive seek responsibilities and accept accountability.
Theory vs. practice	Basically theoretical mind. Practical implementation often difficult.	Basically pragmatic mind. Take action-oriented and problem-solving approaches.
Control	Not full accepted; sensitive to being checked on.	Universally accepted and practiced.
Staffing	Family and friends favored because of trustworthiness. Promotions based on loyalty to superior.	Relatives usually barred. Favoritism not acceptable. Promotion based on performance.
Loyalty	Mostly loyal to superior. Beginnings of self-loyalty.	Mainly self-loyalty. Performance motivated by ambition.
Competition	Avoids personal competition. Favors harmony at work.	Enjoys proving oneself in competitive situations.
Time	Deadlines flexible.	Deadlines and commitments are firm.
Planning	Short-term due to uncertain environments.	Long-term due to stable environments.

(Iowa State University's Center for Transportation Research and Education, 2006)

Chapter III: Methods

The purpose of this study was to identify and evaluate the common challenges presented within a Hispanic workforce and develop best practices for conducting safety training for Hispanic workers. The objectives of the study include:

1. Identify specific difficulties professionals have encountered while working with a Hispanic workforce.

2. Collect professional best practices of effective safety training for Hispanic workers.

3. Develop safety training guidelines incorporating the best practices that consider the specific challenges that have been previously identified.

4. Use the determined guidelines to evaluate Spanish safety training materials

This chapter will provide an overview of the methodology used to collect information on the challenges and best practices for training a Hispanic workforce. The topics that will be covered include: design, subject selection and description, instrumentation, data collection method, data analysis, and limitations.

Design

This study is designed to identify common challenges among safety training in a Hispanic workforce and identify improvements for a more effective safety training program. The collection of primary information from professionals will allow for specific needs to be determined for Hispanic workers. The analysis of preexisting data is also used to determine additional challenges in Hispanic workforces and current efforts for safety training in cross-cultural work environments. The primary and secondary information that is collected will be

used to develop specific guidelines for effective safety training of Hispanic workers. The guidelines will then be applied to the Spanish OSHA eTool for Falls.

Subject Selection and Description

Professionals working with Hispanic workforces provide beneficial information on this study due to their work experience. Various professionals with backgrounds in working with Hispanic workforces were selected through professional networking for brief interviews. These professionals include:

- Bradley Hartmann, founder and president of Red Angle, which is a company that provides Spanish speaking tools for the construction industry. Bradley has a Spanish degree and a MBA from the University of Illinois. Red Angle was founded due to the gap Bradley identified between training managers and Hispanic workers.

- Noe Sanchez, safety director for F.J.A. Christiansen Roofing company in Milwaukee, Wisconsin. Many of the employees for Christiansen Roofing are Hispanic and Noe conducts all of safety training for these employees.

The brief interviews were accepted and conducted over the phone. Interviewees were allowed to ask questions or information regarding the interview. The structure and purpose of the interview was explained prior to starting.

Instrumentation

The two forms of instrumentation used to collect information regarding the study were primary and secondary data collecting information sources. The primary information was collected through the interviews conducted. The secondary information was collected through articles and journals relating to similar studies.

The primary form of information was a phone interview with the listed professionals. This interview was used to collect data from individuals working with Hispanic workforces. The goal of the interview was to obtain data necessary to understand and evaluate the needs of Hispanic workers by identifying questions regarding challenges and improvements for safety training.

The following three base objectives were selected for the design of the interviews:

1. Determine common challenges for training Hispanic workers

2. Determine suggestions for best practices in safety training

3. Determine if there are any needs for specific training materials

Data Collection Procedures

Having defined the objectives for the interview, the data collection process could begin. The objectives were spaced out on a notepad leaving room to record answers during the phone interview. The questions were asked in the order that they were listed. Two individuals were interviewed over the phone. The detailed answers were written under the questions on the notepad ensuring accurately recorded answers. The interviews each conducted within a thirty minute time period.

Data Analysis

The main objective of this study is to determine deficiencies in safety training for Hispanic workers and identify improvements for best practices. The answers from both interviews were compared to identify patterns. The answers found in the interviews were also compared to information found in the secondary data collected from; Iowa State University's Center for Transportation Research and Education, to determine similarities and differences in data. Identifying comparisons allowed for significant recommendations and conclusions

regarding guidelines for effective safety training in Hispanic workforces. The guidelines will be used to analyze the Spanish Version of the OSHA eTool for Falls and recommendations will be made for improved effectiveness of the materials.

Chapter IV: Results

The purpose of this study was to develop safety training guidelines targeted towards a Hispanic workforce, incorporating cultural gaps and communication barriers. It is crucial to follow certain guidelines in order to increase the potential for successful training of Latino workers and thus limit an organization's cost for occupational injuries. The following represent the objectives of the study:

1. Identify specific difficulties professionals have encountered while working with a Hispanic workforce

2. Collect professional best practices of effective safety training for Hispanic workers

3. Develop safety training guidelines incorporating the best practices that consider the specific challenges that have been previously identified.

4. Use the determined guidelines to evaluate Spanish safety training materials

To achieve the objectives of the study, the methodology utilized a review of literature on best practices, and a semi-structured interview. To accomplish the first objective, a literature review and two semi-structured interviews were conducted to identify common issues when working with Hispanic workforces. The second objective was completed by conducting two semi-structured interviews with professional leaders and analyzing additional related studies that were collected as secondary data. To complete the third objective, guidelines were created incorporating best practices and common challenges using the information collected through the primary and secondary data. The fourth objective was accomplished by comparing the developed guidelines to the Spanish version of OSHA eTool for Falls.

Results from Literature Review

To accomplish the first objective, a review of literature was used to identify encountered difficulties while working with a Hispanic workforce. The semi-structured interview also contributed to the first objective of this study. The Iowa State University's Center for Transportation Research and Education identified many common challenges that are present when training a Hispanic workforce. The study explained the inadequacy in safety training for Hispanic workers due to the heavy concentration of Hispanics in the South. Improvements to Spanish safety training have been made where the Hispanic concentrations are the greatest however, the over flooded construction industry in the South has caused for Hispanics to migrate north (Iowa State University's Center for Transportation Research and Education, 2006). This has brought more attention to training needs for Hispanic workers and has identified the deficiencies in current training programs.

This study also discussed the issue of language and how there are more challenges than just not knowing the English language. It is common for Hispanics from Mexico to hold low literacy rates making it difficult to rely on translated training documents and procedures (Ratcliff, n.d.). Often times Hispanics do not understand Spanish that well even though it may be the native language (Ratcliff, n.d.). It is often assumed that all Hispanics should understand instructions and procedures if it is translated into the Spanish language however, many workers can only read at a second-grade level (Ratcliff, n.d.). The Spanish language itself also presents common challenges that are found in the workplace. Not all Hispanic workers come from the same country meaning that vocabulary, dialect, accents and slang terms all vary from country to country. It is similar to the United States in that the terms for various things can be different

from state to state. Being from different places of origin also means that the culture and manners in which things are done can vary drastically as well.

"Culture is a shared meaning system, found among those who speak a particular language dialect, during a specific time period, and in a definable geographic region" (Iowa State University's Center for Transportation Research and Education, 2006, p.7). The cultures in which individuals are born into are often forever engrained into their lives and contribute to the individual's identity. For Hispanics, an important part of their culture is the family. They work hard to support their family and put them first before anything else. The Hispanic culture also looks to please and remain loyal to their supervisor. (Iowa State University's Center for Transportation Research and Education, 2006) The challenge with this cultural aspect comes into the workplace when Hispanic workers are asked to perform a task without fully understanding what the directing manager had said. They often say "yes" for understanding something for fear they may disappoint or lose their job. In a cross-cultural workforce it is important to use a Hispanic individual who speaks both English and Spanish to help translate training and specific procedures. The difficulty that often arises from this is that the bilingual individual often does not want to take on that role as the Hispanic culture tends to avoid personal competition and does not want to be disloyal to the fellow coworkers (Iowa State University's Center for Transportation Research and Education, 2006).

The language and cultural barriers are not the only challenge that is presented when training Hispanic workers. Often times it is the mentality of some working people in the United States that make it difficult for a cross cultural work environment. Stereotyping a different ethnic group presents challenges when it comes to doing business. It allows for necessary work tasks to become overlooked as the stereotyping mentality permits for misunderstanding and

judgments. The mentality of some managers is often set in a certain traditional way and becomes hard to change to accept new ways of doing things. Often times managers are unaware of language barriers or other cross-cultural deficiencies until there is a problem. United States managers and businesses are often based on high production and profit therefore "quick-fixes" to these deficiencies is often the method to address it. These quick fixes do not address the root source of the deficiency; instead they meet minimal compliance to work standards.

Results from Semi-Structured Interview

The semi-structured interview established a real understanding of exactly what challenges safety managers face when training Hispanic workforces and presented suggestions for best practices in Hispanic Safety Training. The first topic that was addressed was that of the common challenges each safety manager faces while working with Hispanic workforces. The deficiency in proper documents for Hispanic workers was discussed. There are no sufficient handbooks available in Spanish that would organize applicable safety information and describe requirements for various safety procedures. There is also a deficiency in the accessibility of the OSHA 10 and OSHA 30 as they are not all available in Spanish. Many Hispanic workers that are required to obtain these are forced to take it in English with or without the help of a translator. There also have been identified inconsistencies in various Spanish materials and no real standardized form of documentation.

Another challenge that was discussed was the amount of slang that is used in the Spanish language. This is often because of the variation in education levels for many Hispanic workers. A significant percentage of Hispanic workers are unable to read or write. There is also a significant variation in Spanish dialects which makes it difficult to use a standard form of the Spanish language.

It was also identified that many United States companies are extremely behind on Spanish training and encounter additional problems when attempting to use bi-lingual employees for translators or higher level positions. The Hispanic culture tends to avoid personal competition so many Hispanic workers are not willing to take a position that would put them at a higher level than their coworkers. There is also a challenge in the Hispanic culture with the excessive need to please a supervisor. This is problem because frequently Hispanic workers do not actually understand what is being said to them and instead say that they do.

Commonly with only a few translators working for a company, difficulties arise with accessibility and availability of the translator, especially when companies have more than one operating facility. Additionally, it is difficult for Hispanic workers to learn new safety methods here in the United States because it differs greatly from the way Hispanic cultures view safety. Hispanic workers have working habits that are hard to break and are not compliant with the safety rules and regulations here in the United States. There is also a lack of awareness from many American managers as they often have their own way of doing things and are do not have the patience or proper mentality to ensure thorough safety training for Spanish speakers. With common challenges in a Hispanic workforce identified, best practices can be suggested formulated, which covers the second topic for the semi-structured interview.

The second topic of the semi-structured interview discussed suggestions for best practices in Hispanic safety training. There is a definite need for readily available Spanish documents that correlate with safety. Having standardized Spanish documents would allow for a more consistent application of content delivery and understanding. In order to understand the content of the training, it should be given in the worker's language of preference. The material should also not assume any knowledge of the subject is known. All terms should be clearly defined,

using simple language and as many visuals as possible. Only having translated documents is not sufficient in safety training. Managers need to make sure that each employee fully understands safety information. Incorporating interactive delivery of the training will help Hispanic workers demonstrate their understanding of the material. Training managers should utilize multiple forms of media to help demonstrate the necessary information. Bilingual translators are a must to help ensure the best comprehension of the material. A hands-on approach incorporating visual and audio delivery with safety training is most beneficial. The delivery or content of the training should also incorporate various Hispanic cultural aspects to increase the potential for acceptance.

In order to increase the effectiveness of Spanish safety training documents or programs, it is important to follow consistent guidelines that incorporate these best practices and correct the common challenges generally presented with a cross-cultural workforce.

Safety Training Guidelines for a Hispanic Workforce

The information gathered from the literature search and the structured interview helped outline important guidelines to follow when performing safety training for a Hispanic workforce. It is important when conducting any training to use components of good training which includes sufficient content, the use of various media and technology, and a sound delivery of the training.

Safety training should follow these components of good training and include specific topics in the content to ensure employee protection at work. Typical safety training content should include organizational goals and objectives, applicable laws and regulations, general workplace safety, and specific job-related safety training.

Integrating components of good training into safety training is the first step to effectively training a Hispanic workforce in safety. The second step is to deliver the safety training in a way that is easy to understand. Safety training materials should be readily available in Spanish and

should not be a word-for-word translation from English. The language used should be simple and should include common vocabulary with as many visuals as possible. The material should begin easy by defining key terms and concepts that will be covered. The materials should also be presented from an individual that is bi-lingual and can help maximize employees understanding of the information in their preferred language. The bi-lingual individual should have a good understanding of the Hispanic culture in order to better connect with the employees who are receiving the training.

It is important for safety trainers of Hispanic workforces to understand that variations in cultures can present challenges in safety training for Hispanic workforces. Trainers need to dedicate time to customizing safety training programs in order to meet the requirements to understanding the Hispanic culture and language.

Analysis of the Spanish OSHA eTool on Falls

The collection of information used to identify safety training guidelines for Hispanic workforces allows for analyses to be conducted on various Spanish safety training material. The OSHA eTool for Falls identifies the hazards that cause injuries from falls. This safety information provided by the eTool is available in Spanish on the OSHA website.

The initial deficiency with the Spanish eTool is that it is not easily accessible. From the OSHA homepage, it routes to three different OSHA pages before going to the eTool home page in Spanish. Once the eTool home page is pulled up, there are two Spanish selection lists that have options to go to electrical incidents, falls, struck-by, or trenching. By clicking *Falls* from one list, the website goes to the English eTool version of falls. This makes it difficult for Hispanic workers to easily access the Spanish information they are looking for.

The first page of the Spanish OSHA eTool for Falls is presented in the same format at the English version. The translation of the content is primarily word-for-word from the OSHA eTool in English. The links to the various hazards that cause falls utilize sufficient and clear Spanish language in the link titles. The webpages connected to the links are also translated word-for-word from the English version. There are a few page links on the Spanish eTool for Falls that provide a picture of what is being referred to in the content. The English version does not provide these same pictures. Both the English and Spanish version of the OSHA eTool provides a link to a glossary with definitions to many utilized terms. The Spanish glossary provides additional simple terms and the definitions.

The word-for-word translation of these materials into Spanish is not preferred for effective Hispanic worker understanding.   Spanish materials should go into more depth in the explanation of certain topics in comparison to English materials. The Spanish glossary that is available on the eTool is sufficient in that it provides definitions for more than just the safety terms. This allows for an improved understanding for the material that is presented. It is also good that some of the Spanish pages provide pictures to allow the reader to visualize what the content is referring to. Visuals are very beneficial in effective safety training for Hispanic workforces.

Overall the Spanish OSHA eTool for Falls is fair. The accessibility to the Spanish eTool homepage could be improved to make it easier for its users. The translation of the content should be more thorough to further explain key concepts and terms in Spanish. The presence of some visuals provides an improvement to understanding what material is being presented. In order for the OSHA eTool for Falls to have the maximum effectiveness, the users need to have supplemental methods for obtaining the information presented. It is recommended that safety

trainers utilize this eTool in combination with additional methods including physical visuals with practice applications, live video demonstrations, question and answer session, bi-lingual interpreter, or any other assistive training method that would be applicable to this eTool.

Summary

The purpose of this study was to identify common challenges presented when working with a Hispanic workforce, identify best practices for Spanish safety training in the workplace and apply best practices by analyzing the Spanish version of the OSHA eTool for Falls. The first objective of the study was to identify common challenges when working with a Hispanic workforce. This was accomplished by reviewing literature and conducting a semi-structured interview that addressed this topic.

The second objective of the study was to collect best practice suggestions for effectively training Hispanic workers on safety. By utilizing the information gathered from the semi-structured interview, best practices were identified and applied to the Spanish version of the OSHA eTool for Falls to complete the objectives of this study. The information gathered from the semi-structured interviews, the identified best practices and the results of the OSHA eTool analysis contributed to the conclusions in Chapter V.

Chapter V: Recommendations and Conclusions

Restatement of the Problem

Many challenges are presented when training cannot be communicated effectively across various worker ethnicities, especially Hispanics. Safety training becomes even more crucial to communicate effectively to new workers due to the severity of the consequences of being unsafe.

Purpose of the Study

The purpose of this study was to develop safety training guidelines targeted towards a Hispanic workforce that incorporates the cultural gaps and communication barriers.

Objectives of the Study

1. Identify specific difficulties professionals have encountered while working with a Hispanic workforce.

2. Collect professional best practices of effective safety training for Hispanic workers.

3. Identify safety training guidelines to improve the effectiveness of safety training in a Hispanic workforce.

4. Analyze the Spanish version of the OSHA eTool for Falls integrating the identified safety training guidelines for a Hispanic workforce.

Methods and Procedures

To accomplish the objectives of the study, the methods included a literature review and a semi-structured interview. These methods contributed to developing a safety training guidelines and analyzing Spanish safety training materials for effectiveness.

The literature review was used to identify common challenges that are presented when working with a Hispanic workforce. The challenges identified were incorporated into the development of the safety training guidelines.

Semi-structured interviews were conducted with two professionals in the field that work closely with Hispanic workers. The interviewees included a safety director for a roofing company and the president of a company that provides Spanish speaking tools for the construction industry. The information gathered from these interviews helped identify additional challenges when working with a Hispanic workforce as well as best practice suggestions and recommendations for improving safety training for Hispanic workers.

The identified challenges and the best practice recommendations contributed to the development of safety training guidelines for Hispanic workforces and the analysis of the Spanish version of the OSHA eTool for Falls.

Conclusions

Common challenges in a Hispanic workforce. The challenges that are presented when working with Hispanic workforces are derived from:

- Variation in the language, whether it is the language itself, dialect, accents, vocabulary, or the use of slang words.

- Variation in the education level. Many Hispanics are not able to read or write.

- Difference between the American and Hispanic cultures.

- The lack of or inconsistencies in Spanish documents.

- The inaccessibility of a bilingual translator or trainer.

- The mentality of American managers in regards to Hispanic workers, assumptions and stereotypes.

Best Practices For Spanish Safety Training. The suggestions for best practices of training Hispanic workers in safety include:

- Using clear and simple communication in the worker's language of preference

- Incorporating multiple training methods such as visuals, pictures, audios, and simple text to convey the necessary safety information

- Developing hands on safety training allowing workers to demonstrate the acquired knowledge.

- Not using word for word translated documents for training materials. Making safety training materials readily available in Spanish for easy to use application.

Safety Training Guidelines For A Hispanic Workforce. The identified guidelines for safety training in a Hispanic workforce include:

- Incorporating components of good training including sufficient content, the use of various media and technology, and giving a sound delivery of the content.

- Including specific safety content such as organizational goals and objectives, applicable laws and regulations, general workplace safety, and specific-job related safety training.

- Delivering the training in a manner that is easy to understand

- Readily available Spanish safety training materials

- The use of simple vocabulary and visuals

- Utilizing bi-lingual individuals

- Customizing the safety training program

Analysis of the Spanish OSHA eTool for Falls. Overall this Spanish safety training material provided by OSHA has opportunities for improvements to ensure maximum understanding and effectiveness. Improvements could be made to the accessibility of the website, the translation of the content, and the use of visuals.   The effectiveness of this eTool could be maximized by using additional training methods in combination with this material. In conclusion, it is beneficial for safety trainers of Hispanic workers to have an awareness of the challenges that are presented when working in a cross-cultural workforce. Having a full understanding of these common issues can help develop more effective solution to safety training and safety training materials. Learning about best practice recommendations from professionals that work with Hispanic workers allows for a better understanding of practical improvements to safety training. Applying the safety training guidelines to existing safety training materials can help identify deficiencies and improve the effectiveness of the safety training comprehension for Hispanic workers.

Areas of Further Research

This research was designed to develop effective safety training guidelines for Hispanic workers based on common identified challenges and recommended best practices for Spanish safety training. The following topics were discovered and should be considered for further research:

1. The development of smart phone applications that would incorporate safety training for Hispanic workers.

2. The creation of a checklist that would incorporate all best practice methods for safety training in a Hispanic workforce.

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