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Development of an effective supervisory training course for Hispanic construction craft workers

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**Development of an effective supervisory training course
for Hispanic construction craft workers**

by

Mauricio Arbelaez

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE

Major: Civil Engineering (Construction Engineering and Management)

Program of Study Committee:
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This is to certify that the master's thesis of
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has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy

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ABSTRACT

Labor is one of the several components involved in the construction process. In the last decades, Hispanics comprise a growing percentage of the craft workers entering the construction industry and this has created several challenges for American construction companies. Research has identified several of the factors that affect project success. Ineffective management is one of the major causes of failure, prompting problems such as low labor productivity and high accident rates on the jobsite. These kinds of failures lead to a loss of reputation as well as other problems for companies. This study was created to address the situation, by investigating training needs for Hispanic construction craft workers and developing a training course for them within the industry.

According to U.S. governmental organizations such as the Bureau of Labor Statistics (BLS) it was found that by the end of the year 2002 the construction industry had reached the highest rates of accidents and fatalities ever in the history of the United States. Existing statistics show that cultural differences have become a decisive cause of this issue particularly due to language barriers between the Hispanic construction workers and management.

In order to evaluate current craft workers' conditions within the construction industry, Iowa State University researchers conducted a survey, with 100 Hispanic craft workers as responders from 10 construction companies, to determine current working conditions. It confirmed that the language barrier has become an obstacle for both employees and the Hispanic workers involved in construction projects.

As a result, this thesis offers a training course designed to help both American construction companies and their Hispanic labor force to overcome those barriers that keep them from succeeding safely and productively. A training course titled *Stepping Up To Supervisor for Hispanic Craft Workers* was developed to provide an effective tool to help companies promote those Hispanic craft workers whose willingness and skills meet the requirements to advance to a supervisory position in an American construction company.

1. INTRODUCTION

1.1 Background

One sector that attracts a great number of Hispanic workers is the construction industry because of its ease of entry, relatively high wages, limited need for English literacy, and moreover, a strong economy. Hispanics are a large and growing part of the United States workforce. The U.S. Census of Bureau showed Hispanics as the nation's largest ethnic or racial minority group in 2000 and it is projected to make up 25 percent of the population of the United States by 2050. As Hispanics working in construction increase, the fatality rate has disproportionably risen as well. In 2002, the assistant secretary of Labor for OSHA, John Henshaw, determined that Hispanics accounted for an inconsistent number of workplace fatalities in 2000, 13.8 percent, compared with their proportion of employment, which was 10.7 percent (Henshaw, OSHA, 2002). The construction industry accounts for about 7 percent of all employment, 20 percent of fatalities, and with Hispanics comprising 15 percent of construction employment. In the past, Mexico has been the traditional the source of labor. However, in the past decade, trends started to change with immigrants coming from Central America and more recently, from countries such as Ecuador, Argentina, Colombia, and Peru due to the deterioration of South American economies.

With these increases and unwanted fatality rates, employers aggressively sought bilingual safety tools for their employees such as training classes, trainers, and training materials. In the same manner, instructions in Spanish for construction supervisors have been becoming more popular as the need arises. The main point that the Occupational Safety and

Health Administration (OSHA) and the National Safety Council (NSC) have addressed is to take the message to everybody involved in construction regarding safety.

As a result of these organizations' efforts, more support has been acquired from employers and associations. For instance, the Associated Builders and Contractors (ABC) and Associated General Contractors of America (AGC) implemented Spanish into their safety programs. These improvements have been implemented where most of the Hispanic population is present. The southern area of the United States is where most of the Hispanic population concentrates and therefore; however, because of the high presence of Hispanics or Latinos today in the southern borders, Hispanics have lately found themselves with fewer job opportunities and more difficulties integrating and they have therefore moved towards less crowded states further North, thus reaching the Midwest.

Iowa has been affected by these national trends, particularly within the construction sector. In fact, it was observed that the Hispanic population has grown so rapidly that according to recent statistics and survey findings, these workers account for about 80 percent of the labor force of the construction companies. Furthermore, the construction industry is projected to experience one of the largest employment growths from 2000 to 2010.

The Department of Civil, Construction, and Environmental Engineering (CCEE) has decided to perform a detailed assessment of the current conditions of this Hispanic population with emphasis on construction craft workers in Iowa. This thesis presents the results of the first phase of the Hispanic Workforce project, which will be available to American construction companies that need more information and help with eliminating the increasing accident trends.

Finally, training tools have been designed in order to overcome any obstacles found on the jobsite due to the lack of adequate communication and language barriers. These tools provide an easy-to-use training course focused on Hispanic construction workers wishing to advance within their company to a better position. This tool has been called *Stepping up to Supervisor for Hispanic craft workers*. This course will help construction companies create a better skilled and prepared Hispanic supervisor who can act as an effective link of communication between his company and his new Hispanic subordinates in order to make sure that craft workers understand and are aware of any risk involved in the work place.

1.2 Problem statement

Because of the increasing population growth and increasing fatality rates encountered by Hispanic construction workers, construction companies are being drastically affected and need to overcome these challenges. The Iowa Department of Transportation (IDOT) has already started taking action in this matter, working with the CCEE department at Iowa State University to investigate training needs for Hispanics. The Hispanic workforce research project has been performed in conjunction with the Iowa Association of Construction Training (IACT).

First, there are several reasons why Hispanics are experiencing greater accident rates. The risk inconsistency is generally blamed on language barriers, educational levels, and the preponderance of this culture working under unsafe conditions. All these factors fall into one category called cultural differences; these play a very significant role and therefore, need to be addressed more deeply.

1.3. Research Objectives

The premise of this research is to provide an effective tool for American construction companies interested in promoting those Hispanic employees whose skills meet their expectations for higher positions such as supervisor. On the other hand, this thesis also provides a tool to Hispanic craft workers with the abilities and desire to meet the requirements to become a productive construction supervisor in the U.S.

In order for this project to provide a successful solution, it is necessary to assess the needs and interests of the Hispanic workers involved in construction in Iowa. Data collected through surveys represents the foundation for the development of a valuable training course.

Gathering accurate information, evaluating results, and developing a training course will be useful for both construction companies and their Hispanic workers who day to day should interact in a safer and more productive manner, keeping in mind that if we struggle with trying to obtain the best labor productivity and the least amount of accidents on the jobsite, then training should be implemented effectively.

1.4 Thesis Organization

Chapter One introduces the topic, exposes an existing problem, discusses the objectives of this project, and defines the goals of this thesis. Chapter Two presents the literature review, starting with a general overview on the Hispanic and U.S. population before continuing with more detailed information on Hispanics influencing the construction industry in the U.S. It concludes with a summary of available supervisory training material for Hispanics construction workers. Chapter Three contains the methodology used for gathering necessary data, analyzing the results, and drawing reliable recommendations with which to develop and provide a tool as a solution to the stated problem. Chapter Four

provides the procedure, systematic approach, and cultural aspects considered in the development of a training course for Hispanic construction craft workers who are ready to be promoted to a supervisory position. Chapter Five contains the training course contents which is organized into 6 main parts, an introductory section to the topic, four parts as follows: (1) how to work with your self, (2) how to work with an individual, (3) how to work with a group, and (4) key points, and an evaluation form provided at the end of the course in order to make sure that the objectives of the course have been attained by the trainees. Finally, conclusions and recommendations are discussed in Chapter Six.

2. LITERATURE REVIEW

2.1 Introduction

Hispanics have reported considerable changes during the last 14 years and therefore the time frame used in this topic is very important when analyzing available data. Compiling current data available requires a thorough effort due to a rapidly growing Hispanic population of more than 50 percent from 1990 to 2000. Using the information already published by government agencies and private researchers, this report collects, compiles, and analyzes the information necessary to study factors and trends of the Hispanic population involved in the U.S. construction industry. Several organizations' websites have been reviewed in order to obtain current information. These organizations include the U.S. Census Bureau, the U.S. Department of Labor, the Bureau of Labor Statistics (BLS), the Occupational Safety and Health Administration (OSHA), and the National Institute for Occupation Safety and Health (NIOSH).

2.2 Overview and trends of the Hispanic and U.S. population

Hispanics are significantly influencing the construction sector as a consequence of their growing population rates in the U.S. A look at the population information available on trends within the Hispanic population is necessary to gain insight into what has been occurring and what will occur in the construction industry. A compilation of the current population survey (CPS) shows that in 2000, 281.4 million residents were counted in the United States of which 35.3 million (or 12.5 percent) were Hispanic or Latino.

The word "Latino" first appeared in the Census 2000, which is another form for Hispanic. People of Hispanic origin were those who indicated that their origin was Mexican,

Puerto Rican, Cuban, Central or South American, or some other Hispanic origin. (Guzman, 2001) The Hispanic population growth from 1990 to 2000 was 57.9 percent, whereas the total U.S. population grew only 13.2 in the same time period. Besides this notable growth rate, there have also been changes within the Hispanic population distribution within this time frame. Mexicans increased 52.9 percent from 13.5 million to 20.6 million, Puerto Rican increased 24.9 percent, Cubans increased 18.9 percent, and other origins increased 96.9 percent from 5.1 million to 10.0 million as depicted in Figure 1. (Census 2000 Brief: The Hispanic population) At the beginning of 2003, Hispanics became the nation's largest minority, accounting for 13.6 percent of the total U.S. population.

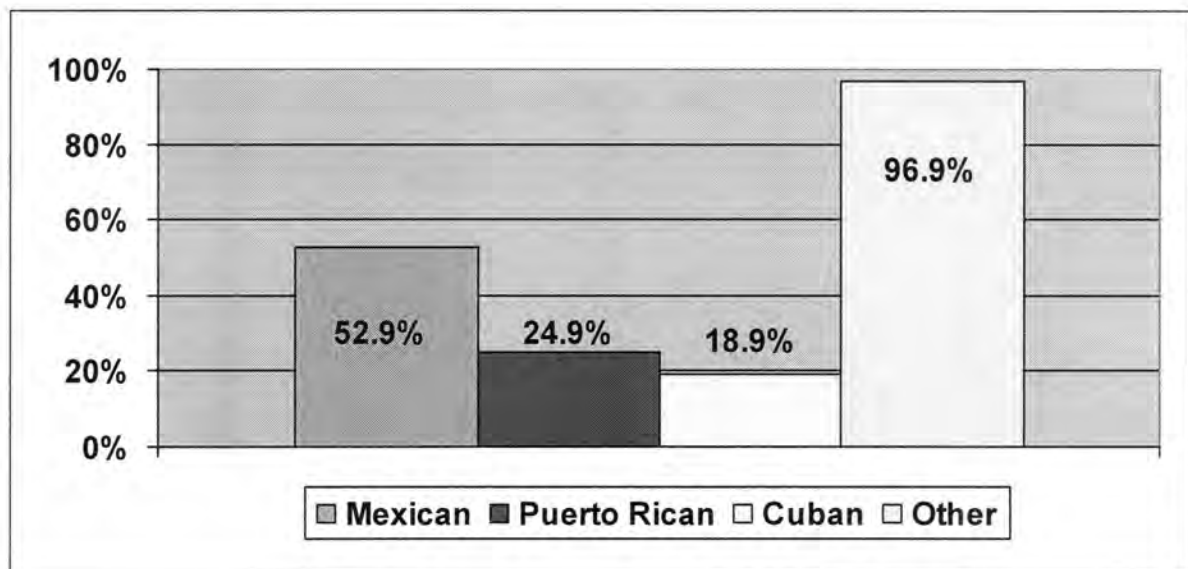


Figure 1. Hispanic population growth by group: 1990 - 2000

In addition, Table 1 shows where the majority of the Hispanic population is concentrated and how fast these population centers have grown in the last 14 years. More than three quarters of Hispanics lived in the West or South (primarily California and Texas).

It is clear that Hispanics tend to establish themselves as close as possible to their native countries, in this case, to Mexico and further south, Central and South America. In 2000, 43.5 percent of Hispanics lived in the West and 32.8 percent lived in the South. The Northeast and Midwest accounted for 14.9 and 8.9 percent respectively. (Guzman, 2001)

Numbers will continue to change according to the U.S. Census Bureau projections, between 2000 and 2050. By 2050, Hispanics are projected to make up 25 percent of the U.S. population. In Iowa, the Hispanic population comprises 2.8 percent (or 82,473) of the total population (2,926,324), of which 74.2 percent were Mexicans, 3.3 percent were Puerto Ricans, 0.9 were Cubans, and 21.7 percent were other Hispanics (including Central and South Americans).

Table 1. National, top 3 states and Iowa by Hispanic population: 1990-2000

Area	1990			2000		
	Total Population	Hispanics		Total Population	Hispanics	
		Number	Percent		Number	Percent
United States	248,709,873	22,354,059	9.0	281,305,818	35,305,818	12.5
California	29,760,021	7,687,938	25.8	33,871,648	10,966,556	32.4
Texas	16,986,510	4,339,905	25.5	20,851,820	6,669,666	32.0
New York	17,990,455	2,214,026	12.3	18,976,457	2,867,583	15.1
Iowa	2,776,755	32,647	1.2	2,926,324	82,473	2.8

Figure 2 shows the difference between population projections and actual population in Iowa. According to the population projections (U.S. Census Bureau, 2000), there will be 96,000 Hispanics in Iowa by the end of 2025. This ethnic group has shown such a significant growth rates that the U.S. Census Bureau had projected this number to be about 54,000 by the end of 2000, but in reality the 2000 Census reported 82,000 (or a 65 % increase) Hispanics in the state of Iowa.

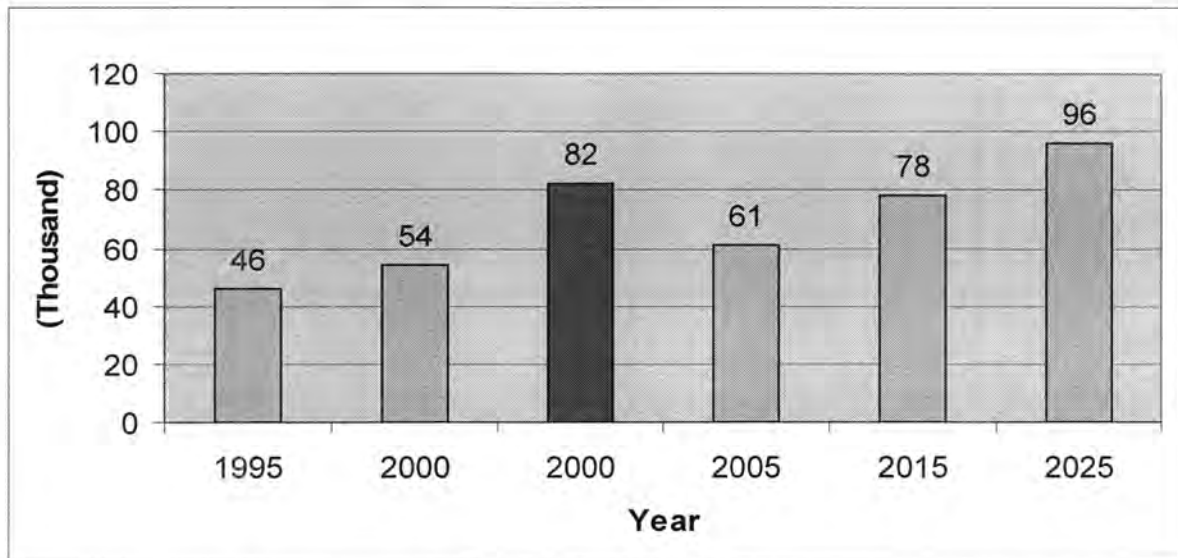


Figure 2. Hispanic population in 2000 vs. population projections for Iowa from 1995 to 2025

2.3 Labor force, Hispanics, and the U.S. construction industry

Population changes, such as the aging of the baby boom¹ generation and increasing racial and ethnic diversity within the U.S. population, continue to transform the American labor force. Every economy has a driving force, for the U.S., labor force has been drastically influenced by the large increase of foreign-born workers since 1990. This relates directly to the U.S. economy in recent years. Between 1996 and 2000, this increase has contributed to a U.S. labor expansion, becoming nearly half of the net labor force increase. (Mosisa, 2000)

The Current Population Survey reported that even though foreign-born tend to be less educated than native-born, they are more likely to be labor force participants than the native-born counterparts. Among the foreign-born population, labor force participation rates for whites were lower than for any other race/ethnic group. (Mosisa, 2000)

¹ Baby boomers are persons born between 1946 and 1964

2.3.1 Hispanics influencing the U.S. labor force

Given the foreign-born population trends in the U.S. construction labor force, needs assessments must be carried out by companies employing this diverse workforce. The assessment should address the consequences lately encountered. Finally, these companies must make strategic decisions to counteract the negative aspects found up to date such as implementing diversity training programs.

The Hispanics living and working in the U.S. are the most exposed victims of environmental and occupational health problems and reported a disproportionate number of workplace fatalities in 2000. The 2000 BLS report on fatalities shows that 815 Hispanic or Latino workers died as a result of job-related injuries. This appears to be largely due to the fact that Hispanics are employed in the more dangerous industries. For instance, the construction industry accounts for about 7 percent of all employment, but 20 percent of fatalities were due to falls and contact with equipment. (Henshaw, 2002)

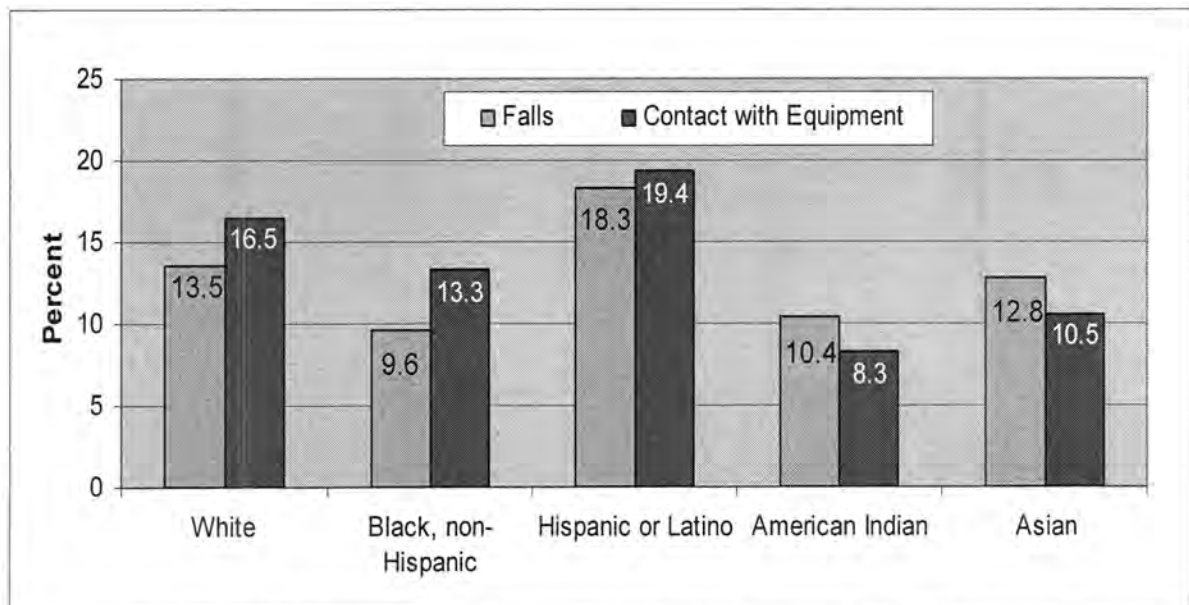


Figure 3. Fatal injuries by event of exposure and ethnic group in 2001

Recently, organizations not only reach out to a broader group of job seekers, but also provide effective training for new employees who somehow lack the skills necessary on the job site. The proposed focus is to ensure that regardless of their racial or ethnic background, construction workers have the skills they need. Because they come from other cultures, these immigrants will require more basic training than other workers.

An effective training approach is therefore required to provide Hispanics not only with the right equipment and how-to safety procedures, but also with a culturally meaningful explanation and conception of why safety is important. It must also illustrate how coming from a different culture can play such an important role in safety issues.

2.3.2 Employment data of the U.S. construction industry

Berman et al. (2001) studied the employment growth influence in the U.S. economy during the past decade and showed employment reaching about 167.8 million by the end of 2000. The 2000-2010 projections show an expansion at approximately the same as that of the past decade with nearly 60 percent of the total employment attributed by the service-producing industries.

These projections indicate that the construction industry (part of the goods-production sector) will continue to add jobs at a relatively slow growth of 0.5 percent yearly. The Monthly Labor Review of the Bureau of Labor Statistics projected the construction industry to add 825,000 jobs by 2010 at a 1.2 percent growth rate, and also to be the goods-producing sector's largest and fastest source of employment growth. (Bernman, 2001)

The Bureau of Labor Statistics projects employment by industry and by occupation. Total employment in the United States is projected to increase by 22.2 million (or 1.4 percent) from 2000 to 2010. Table 2 displays the total number of jobs (in thousands) for both

the 1990-2000 and the 2000-2010 periods by the goods-producing industry and the average annual rate of change. Within this industry, the construction industry has the largest growth in both periods.

Table 2. Total employment by goods-producing industry, 1990-2000 and 2000-2010

Industry	Thousands of jobs			Average annual rate of change	
	1990	2000	2010	1990-2000	2000-2010
Total	124,324	145,594	167,751	1.6	1.4
Goods producing	24,906	25,709	27,057	0.3	0.5
Mining	709	543	488	-2.6	-1.1
Construction	5,120	6,698	7,522	2.7	1.2
Manufacturing	19,077	18,469	19,047	-0.3	0.3

The employment statistics indicated the Hispanic population in the U.S. in 2002 comprised 12.2 percent of the total number of employed persons 16 years and over. (*BLS Table 18. Employed persons by detailed industry, sex, race, and Hispanic origin, 2002*) More specifically, Hispanics involved in construction accounted for 18.8 percent (or 1.8 million) of the total employed population working in the U.S. construction industry (or 9.7 million).

2.3.3 Management goals through training

The importance of workers' knowledge, skills, and capabilities is of primary importance among those construction companies which have come to the conclusion that it is not only about having enough workers to finish the work on time and under budget, but also it is about having the right people with the necessary skills to accomplish a complete and competitive goal.

The construction industry is facing a combination of various factors that may affect their goal achievement. The presence of workers from different cultures on the jobsite has created a growing gap between both their skills and capabilities and the job requirements. This gap must be shortened through training programs that lead to employment development.

Employers must prepare to meet the challenges represented by this knowledge gap. Providing a safe environment must be a primary goal, as it is critical to low employee turnover and high productivity.

The Construction Industry Digest, provided by the Occupational Safety and Health Administration (OSHA 2202, 1998) includes a chapter called Safety and Health Management Systems which contains four main elements as follows: (1) Management Commitment and Employee Involvement, (2) Worksite Analysis, (3) Hazard Prevention and Control, and (4) Safety and Health Training. The fourth factor is an essential component of an effective safety program. Through such programs, companies are able to identify the safety and health responsibilities of both management and employees at the site. Training depends on the size and complexity of the worksite, potential hazards, and worker characteristics.

One of the main objectives of a company's management is to train supervisors to understand the key role they play in jobsite safety and to enable them to carry out their safety and health responsibilities effectively. (OSHA, 1998)

2.4 Summary of available training material for Hispanic construction workers

In the late 1980s, organizations were concerned with the presence of new cultures coming into their labor force. It is projected that by 2008 white non-Hispanic persons will make up 70.7 percent of the labor force (U.S. Department of Labor, 2000), of which about 30 percent of the labor force will be comprised of foreign born. These demographic shifts have forced U.S. companies to take a close look at how to prepare for a much more diverse workforce.

It is clear that training programs must be developed and offered based on current and future needs. Available material focused on the Hispanic population of the U.S. is becoming more and more popular and requested. More than 10 million Americans speak little or no English. Organizations such as OSHA have special concerns for non-English speaking and other workers such as Bosnians. In October 2001, this agency formed a task force to inspect the issue of rising Hispanic fatalities, and what employers should do to address the problem.

According to the OSHA Trade News Release (February 2003), more than \$2.2 million in new funding is allocated for outreach to Spanish and other non-English-speaking workers in President Bush's Fiscal Year 2004 budget for the Occupational Safety and Health Administration. This is the first time OSHA's budget will include additional funding for Hispanic outreach. (OSHA, 2003)

The American Society for Training and Development (ASTD) is the world's leading association for workplace learning and performance. Ongoing ASTD initiatives, such as the

latest *State of the Industry Report*, show that training expenditures dropped from 2.0 percent of payroll in 2000 to 1.9 percent of payroll in 2001. Training expenditures per employee rose 8 percent to \$761, with 78 percent receiving training and an average of 23.7 hours. (Thompson, Koon, Woodwell, Beauvais, 2002)

OSHA is forming alliances with Hispanic leadership and community-based organizations and offering an ever-increasing number of publications and fact sheets in Spanish. OSHA will continue to expand ongoing Hispanic outreach projects such as the community-based effort to disseminate safety and health information among immigrants in New York and New Jersey, the CARE program (Construction Accident Reduction Emphasis) in Florida, an alliance with a Latino community group in Georgia to encourage workers to report hazards, safety and health courses and small business training taught in Spanish in the Southwest, and bi-lingual compliance assistance specialists and inspectors available to assist Spanish-speaking workers and employers in several local offices. (OSHA)

In addition, a new written in Spanish website is helping OSHA reach out to non-English speaking workers and employers. The web page initially is featuring basic documents such as worker and employer rights and responsibilities, resource materials and other information of special interest to Spanish-speaking audiences. In addition, OSHA's new program, Alliances, enables organizations committed to workplace safety and health to collaborate with OSHA to prevent injuries and illnesses of Hispanics in the workplace.

NIOSH's (National Institute for Occupational Safety and Health) mission is to prevent work-related illness, injury, and death. NIOSH conducts a wide range of research, training, and technical assistance programs to identify and reduce hazardous working conditions. Recognizing the vital importance of education in the occupational safety and

health (OS&H) field, NIOSH supports academic programs that are designed to enhance the knowledge of the professional and paraprofessional workforce in this field.

NIOSH in Spanish, as another source of available material, includes Spanish-language versions of several NIOSH workplace safety and health documents relevant to industries and occupations in which large numbers of Spanish-speaking workers are employed. It also describes in Spanish how workers and employers can contact NIOSH and access basic services, such as health hazard evaluations.

2.4.1 Supervisory training program

The work expectations of the supervisor have been changing to meet the needs that characterize most workplaces and practices with the new skills required to lead effectively in the rapidly changing workplace. The supervisor's role has changed for several reasons. For instance, technological advancements and cultural diversities have brought new interests for construction companies.

The Associated General Contractors of America (AGC), through one of its subsidiaries, the Iowa Association for Construction Training (IACT), provides a Supervisory Training Programs (STP) for construction foremen and superintendents. STP is published by Wil McKnight Associates and courses are offered by AGC chapters, other construction organizations, and companies nationwide. For example, the IACT offers training programs using the Stepping Up To Supervisor material which consists of three parts: a Spanish-version book, an English-version book, and a Workshop Leader's Guide in English.

Some of the major contents taught in these programs include the following topics: meeting the challenge of stepping up to supervisor, fitting your basic fundamentals into your

style, dealing with special situations, and sample forms, checklists, and reference information. (McKnight, 2001)

All these materials are aimed to meet the need of the construction industry. The STP focuses on the knowledge and skills that every supervisor must have to be an effective manager of people, time, equipment and materials (AGC). This association has also created a wide variety of innovative and effective programs to support training programs for craft workers. Information on AGC's craft training programs and services is available the AGC's training and educational services and also through the National Center for Construction Education and Research.

2.5 Concluding remarks

It appears that extensive literature exists on topics related to improving construction safety and other areas such as productivity and quality through training programs. However, it was found that there is also a gap related to achieving an appropriate safety culture among Hispanic craft workers, which in the long turn will reduce the risk this population faces in the work place. The Associated General Contractors of America provides the majority of the information and material on training programs. Other organizations such as OSHA and ASTD also offer these types of education programs but there is still a need for material on supervisory training programs and particularly, for Hispanic construction craft workers. This will be covered in Chapter Four.

Developing tailored training programs can be an effective approach to engage employees in any company's goals. Sometimes the lack of effective training programs and qualified developers and instructors may result in the increase of that gap for Spanish speaking workers and prospective supervisors. Translating training programs into Spanish is

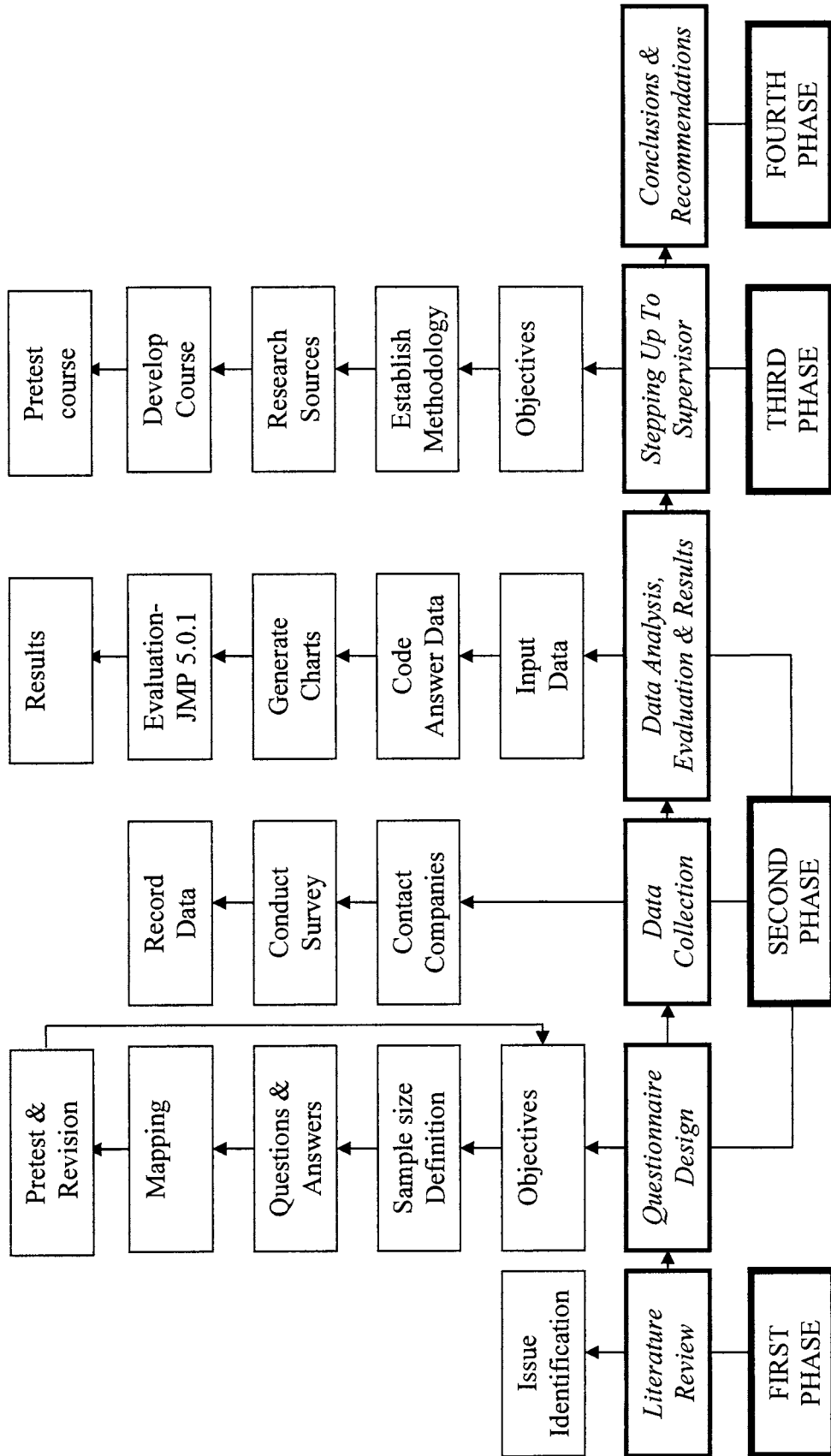
seen as the first step to bridging the gap. The main objective is to teach Hispanic craft workers in Spanish how to make themselves readily understood as they communicate day-to-day in an English-spoken environment such as the job site and thus, meeting the requirements to step up to a better position.

3. RESEARCH METHODOLOGY

Current data on Hispanics was required to fulfill the objectives of this thesis. As a result, both the availability and the quality of such data must be addressed. Reliable data must be obtained in order to draft recommendations which will serve as a basis for targeted actions at levels of training programs. Data was gathered in different ways. First, data was collected from several organizations such as the Occupational Safety and Health Administration (OSHA) and the Bureau of Labor Statistics (BLS) was obtained from their websites. Second, a questionnaire was designed and the survey was conducted in order to collect data from Hispanic construction workers in Iowa. Finally, the data was analyzed in order to select the most critical facts in developing an effective solution for both American construction companies and Hispanic craft workers. This research focuses on the Hispanic population in the U.S., with a more detailed study on Hispanics working for American construction companies in Iowa.

The methodology used for this research project on Hispanic construction workers is shown in Figure 4. It consists of four phases as follows: (I) a literature review on the construction industry and Hispanics in the state of Iowa, (II) questionnaire design, data collection, and data analysis, evaluation, and results, (III) stepping up to supervisor, and (IV) conclusions and recommendations.

Figure 4. Research Methodology



3.1 First phase: The construction industry and Hispanics in the state of Iowa

The objective of this phase was to collect the necessary information about Hispanics that could be used to create effective training tools for Hispanic craft workers and American construction companies in Iowa. Statistics from governmental organizations were obtained through their websites, articles, and reviews. This first step involved collecting information needed for assessing this population with the focus on Hispanic construction workers in Iowa. The other information was obtained by developing a questionnaire and conducting one-to-one surveys on several construction job sites.

Results show that the Hispanic population for Iowa in 2000 was 82,473 (or 2.8 percent) of the total population. The *Mexican* group accounted for about three fourths (74.2 percent) of Hispanics followed by the *Other Hispanic or Latino* group (21.7 percent) (U.S. Census Bureau, 2001).

Statistics indicated that Hispanic construction workers experience more accidents, injuries, and fatalities than the general population. In 2001, Hispanics experienced the highest rate of fatal occupational injuries. Contact with objects and equipment and falls were the two events of exposure in which Hispanics were involved with 19.4 and 18.3 percent respectively. (BLS)

Table 3 shows the most common fatal occupation injuries in construction by most common event of exposure in Iowa. There is no data on fatal injuries of Hispanics in construction for Iowa. The available data covers only the White and Black population.

Table 3. Fatal occupational injuries in construction by most common event of exposure for Iowa in 2000

Industry	Fatalities	
	Number	Percent
Total	71	100
Contact with objects and equipment	13	18
Falls	14	20

U.S. Department of Labor, BLS Occupational Injury and Illness Classification Manual

Data on Hispanics involved in construction in the state of Iowa was obtained from the Bureau of Labor Statistics (BLS) and the 2000 Census data from the U.S. Census of Bureau.

Between 1990 and 2000, there was an increase of 40 percent in the number of construction jobs in the state of Iowa from 71,304 to 100,527. Polk County accounted for 16.1 percent of the total followed by Linn with 8.1 percent and Scott with 5.9 percent.

3.2 Second phase: Questionnaire design, data collection, and data analysis, evaluation and results.

A face-to-face survey was deemed the most efficient and reliable way to collect data from Hispanic construction craft workers. Thus, after the literature review (First Phase) was made on the construction industry and Hispanics in the state of Iowa, the research process continued with the second phase. This phase consisted of three stages: (1) questionnaire design, (2) data collection, and (3) data analysis, evaluation, and results.

The goal of the questionnaire was to provide data necessary to bridge the gap between American supervisors and Hispanic construction workers by identifying the problems created by blending the two cultures into the workplace. After identifying the problems, suitable and

effective training courses could be developed to encourage Hispanic construction workers to be active and productively engaged participants in the refinement and accomplishment of American construction companies' goals under a safe environment.

The following fifteen objectives were defined for the design of the questionnaire:

1. To determine general and specific types of training programs currently offered by construction companies in the U.S. to Hispanic workers.
2. To determine the level of adequacy of Hispanic workforce training with regard to taken courses, course duration, and degree of difficulty.
3. To identify how Hispanics feel about the usefulness of the courses.
4. To identify Hispanic and American cultural differences and their implications for the workplace.
5. To determine patterns of needs, interests, and areas of training for Hispanic construction workers according to the current level of skills and working conditions.
6. To prioritize those areas of improvement for the implementation of ESL and technical training courses for Hispanic construction workers.
7. To determine the factors and problems (e.g. language barrier, experience) that adversely affect the performance, quality, and safety conditions of Hispanic construction workers.
8. To determine the level of interest as expressed by Hispanic workers in relation to improving and learning new skills such as construction equipment operation.
9. To prioritize the type of equipment they would prefer to learn to operate.
10. To determine the level of satisfaction of Hispanic workers as it relates to their opportunities to learn new skills, safety conditions, and type of tasks they perform.
11. To verify the need to have key employees on the job site to overcome the language barrier.
12. To determine accident rates and types of accidents overcome by Hispanics in construction.
13. To gather background, personal, and demographic information on Hispanic construction workers.

14. To obtain mobility index of Hispanic workers.

15. To identify personal expectations and goals towards the future of Hispanics

Having defined the objectives of the questionnaire, the sample size was defined by using the literature review summarized in Chapter Two. It was determined that at least one hundred respondents were necessary to obtain enough data to draw and evaluate significant conclusions, and generate recommendations. Several factors influenced the sample size, such as how quickly the results were needed, what type of survey to do, and the availability of workers as well as the disposition of the project supervisors at the time of the interview. More specifically, the sample size was calculated according to the number of Hispanics involved in the construction industry in Iowa obtained from statistics provided by the BLS and U.S. Census Bureau.

Hence, a convenience sample was decided upon accordingly to the literature review on how to conduct surveys (Fink, 1998) due to respondents' willingness and availability to complete the survey. Thus, in order to control sampling errors, a minimum of one hundred workers was chosen as the sample size.

Once these factors were taken into account, quantitative and qualitative measurements were determined as well as the order and survey length. This step was mainly based on the specific objectives of the survey. Initially, the questionnaire consisted of 20 questions arranged in four categories of information as follows: (1) English as a Second Language background (ESL), (2) management course information, (3) safety aspects, and (4) personal information.

This first questionnaire was pretested on three different jobsites, with nine respondents. Corrections and modifications were made by several experts such as the Survey

Director and Associate of the Center for Survey Statistics and Methodology and other Iowa State University faculty.

Finally, the questionnaire was completed. It consisted of thirty five questions, with the same four categories established before the pretest. Appendix A contains the questionnaire in its final format and with its main objective, which was used as introductory information before the surveys took place.

Data collection, as the second part of phase two, was carried out by using face-to-face surveys with construction workers on the jobsites. Several construction companies in Iowa were willing to collaborate and ten of them were contacted prior to conducting the surveys. Research team members called project contacts, explained the nature of the survey, and occasionally requested permission in advance to enter the jobsite.

A variety of project types were selected. Most of the construction projects chosen as data sources were located in the Des Moines area, Ames, Burlington, Council Bluffs, and cities in which the presence of Hispanic workers was sufficient to conduct the survey. Of the 100 surveys initially planned, 98 of them were successfully conducted, thus obtaining a response rate of 98 percent. To conduct this survey, appropriate personnel with bilingual skills in Spanish and English and highly experienced with Hispanic construction labor force were used as surveyors.

As a last stage of the second phase, data analysis, evaluation, and results were obtained and used for the choice and development of an effective and unique training course. In this phase, factors such as the length of the questionnaire, the number of completed surveys, and the data analysis software to be used had to be considered. Table 4 shows how the objectives and questions were related:

Table 4. Mapping of objectives

Objective No.	Question No.
1	2,3c,19c
2	1a,1b,4,5
3	3a,3b,6
4	15,16a,b,c
5	1c,5,7,8,9,13,14,19d
6	10a,b,c,d,e,f,33
7	17d,23a,b,24a,b,33
8	11
9	12
10	17a,b,c
11	18,19a,b
12	20,21
13	22,25,26,27,28,29,34
14	30,31
15	32, 35

Microsoft Excel was utilized to store respondents' information. Thus, survey responses were inputted, coded, and kept confidential in a customized database. Totals and respective percentages were calculated and charts were generated for each of the thirty five questions. This approach would be precise if the sufficient responses were received; otherwise, questions were removed and discarded.

Data analysis continued with the evaluation of the generated charts. Variability as well as similarities were extracted from the bar charts obtained for each question. Establishment of relationships indicated patterns that, in turn, would lead to significant conclusions for research project recommendations.

Given a significant number of respondents, the data was exported to statistical software called Jump 5.0.1, which served as a means of evaluation. Making use of both bar charts and statistical results, questions were selected accordingly to the research objectives.

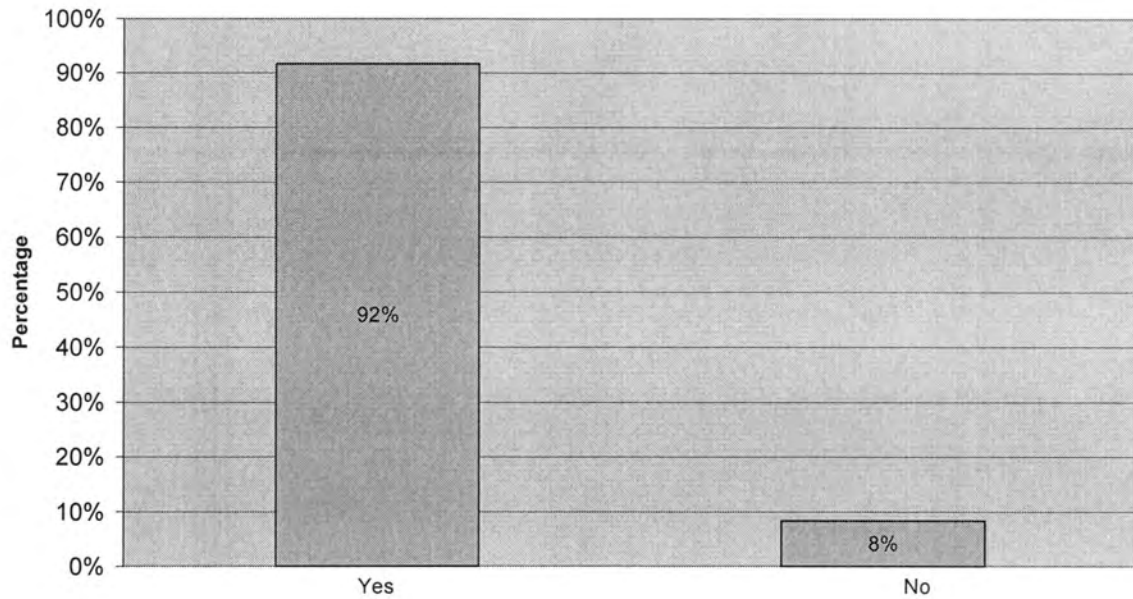
Out of the fifteen questionnaire objectives defined in second phase, the following five were selected in Table 5 in order to narrow the answers down to the specific training needs of Hispanics workers and American construction companies on the jobsite:

Table 5. Objectives and questionnaire used for training course development

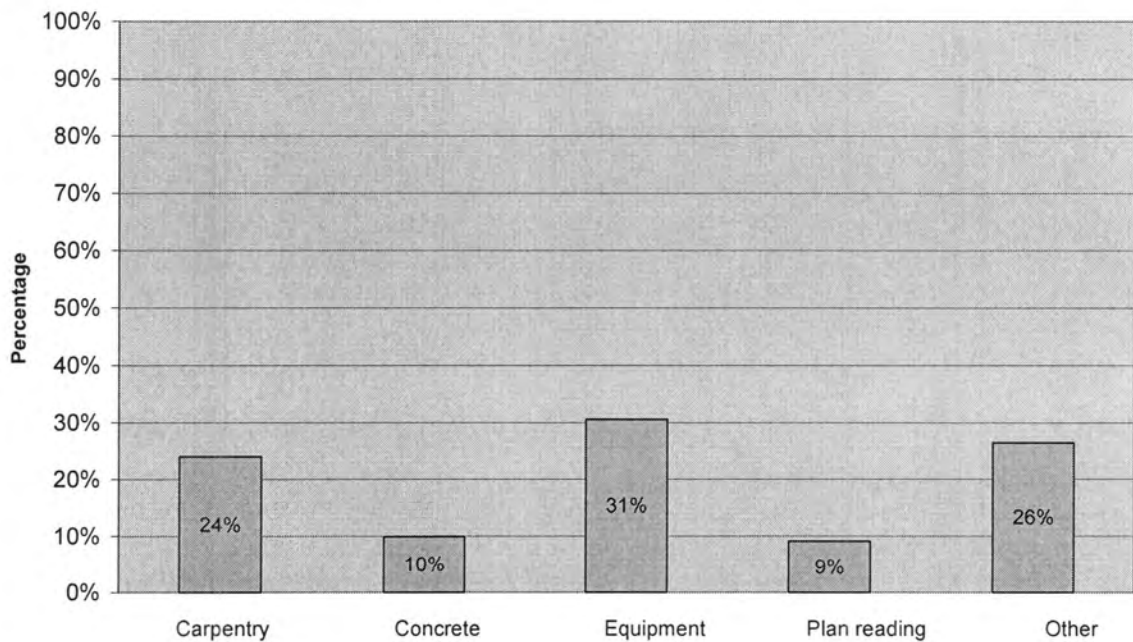
Objective No.	Objective	Question No.
1	To determine general and specific types of training programs currently offered by construction companies in the U.S. to Hispanic workers.	19c
5	To establish patterns of needs, interests, and areas of training for Hispanic construction workers according to their current level of skills, working conditions, and safety environment	7, 8, 9, 13, 19d
7	To determine all factors (e.g. language barriers) that adversely affect the performance, quality and safety conditions of Hispanic construction workers	23a, 23b, 24a, 24b,
10	To determine the level of satisfaction of Hispanic workers as it relates to their opportunities to learn new skills, safety conditions, and type of tasks they perform.	17a
15	To identify personal expectations and goals towards the future of Hispanics	32, 35

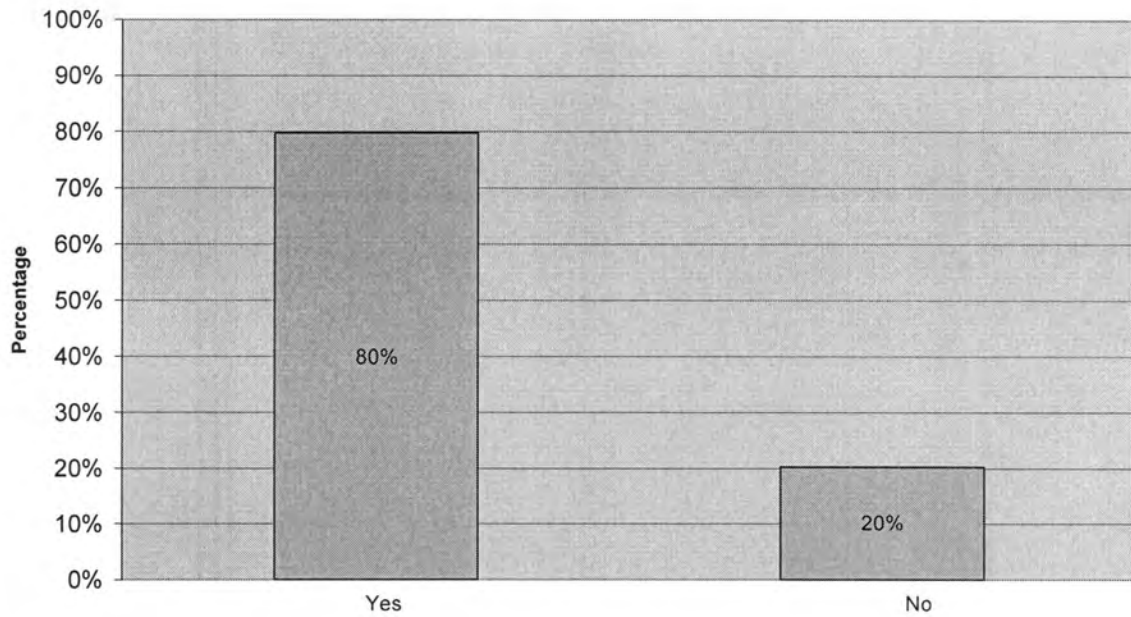
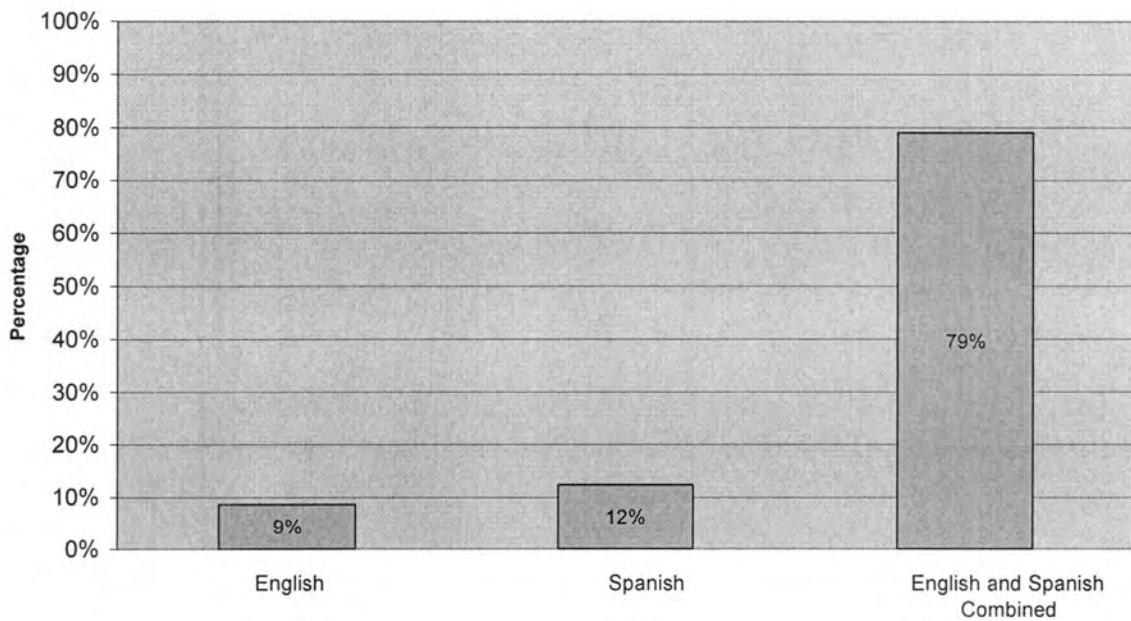
The next step was to refer to the table of mapping of objectives to select the respective questions contained by each of these objectives to help in selecting a training course. Having chosen these questions, the next stages of the second phase took place, charts were generated for each of them and results were evaluated. Survey findings for questions 7, 8, 9, 13, 17a, 19c, 19d, 23a, 23b, 24a, 24b, 32, and 35 were the most related to training. The following charts were extracted from Microsoft Excel in their original format.

7. Would you be interested in taking a technical training course related to your job?

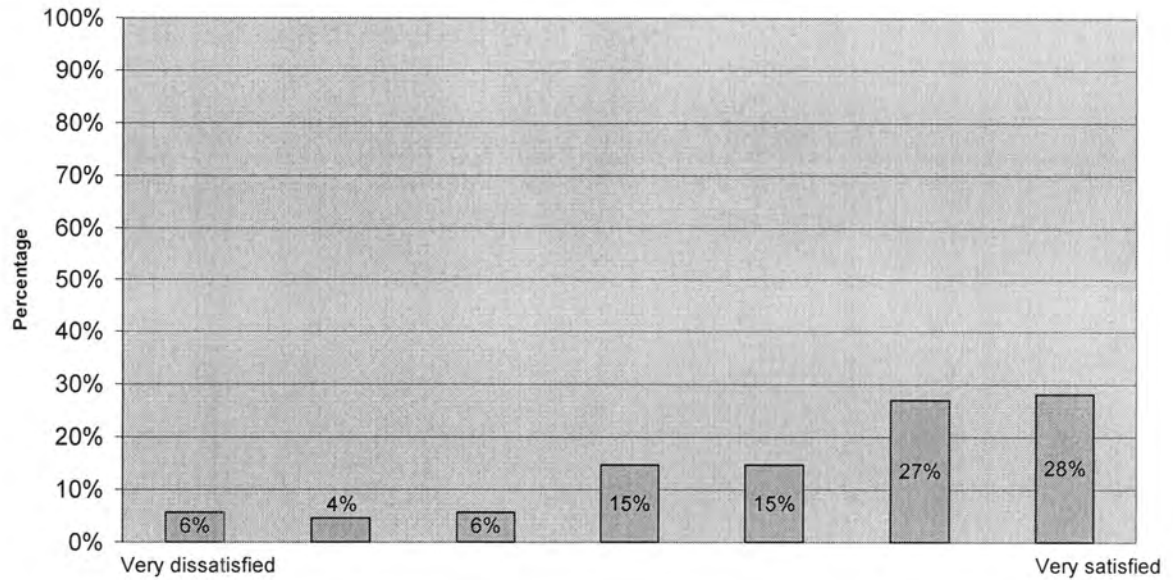


8. What would you like to learn?

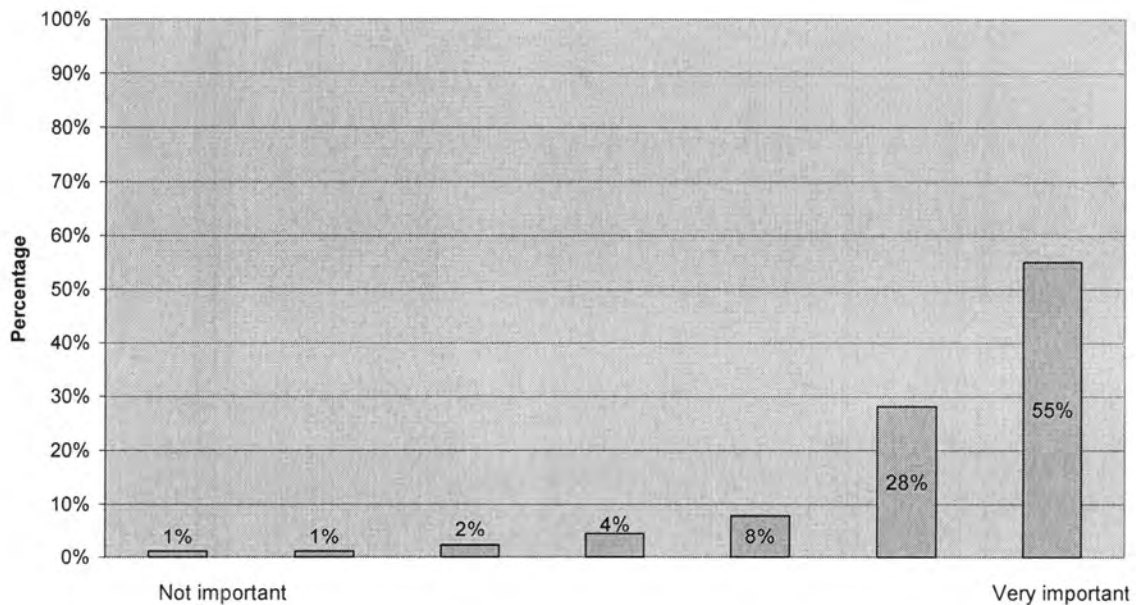


9. Are your learning interests related to your occupation?**13. In which language would you prefer to take a technical course?**

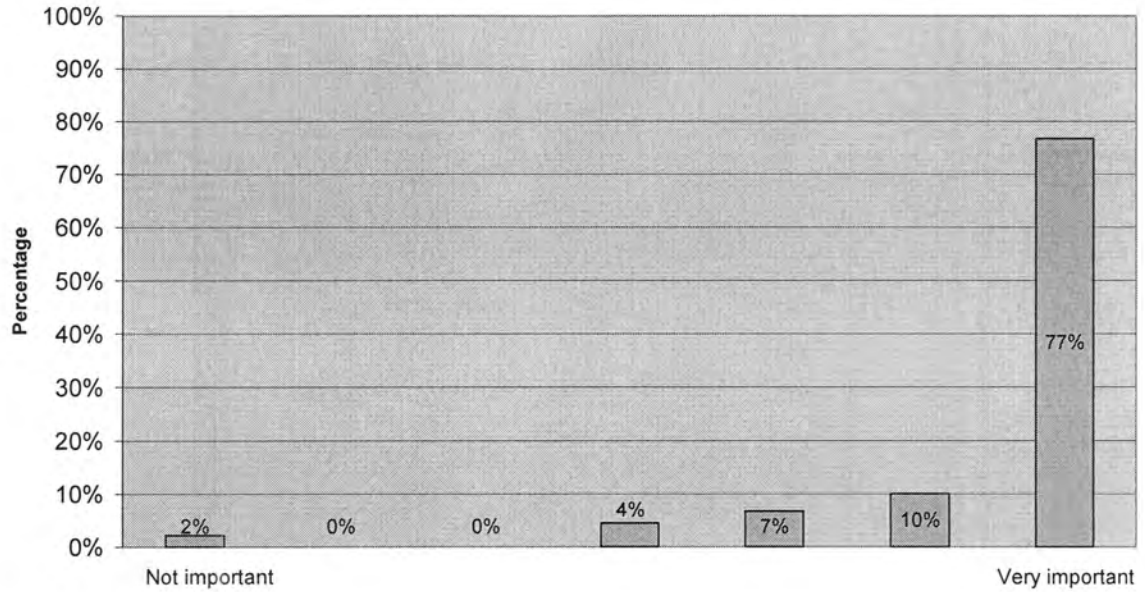
17a. How satisfied are you with your training opportunities to improve your skills or learn new skills?



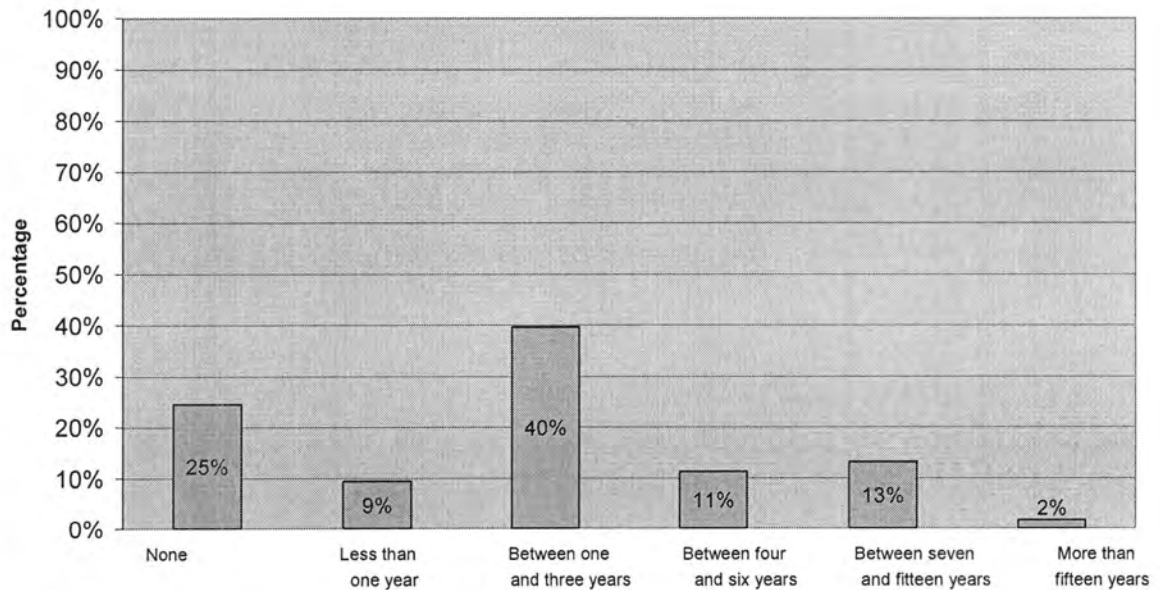
19c. How important would it be to you to receive training emphasizing only in construction?



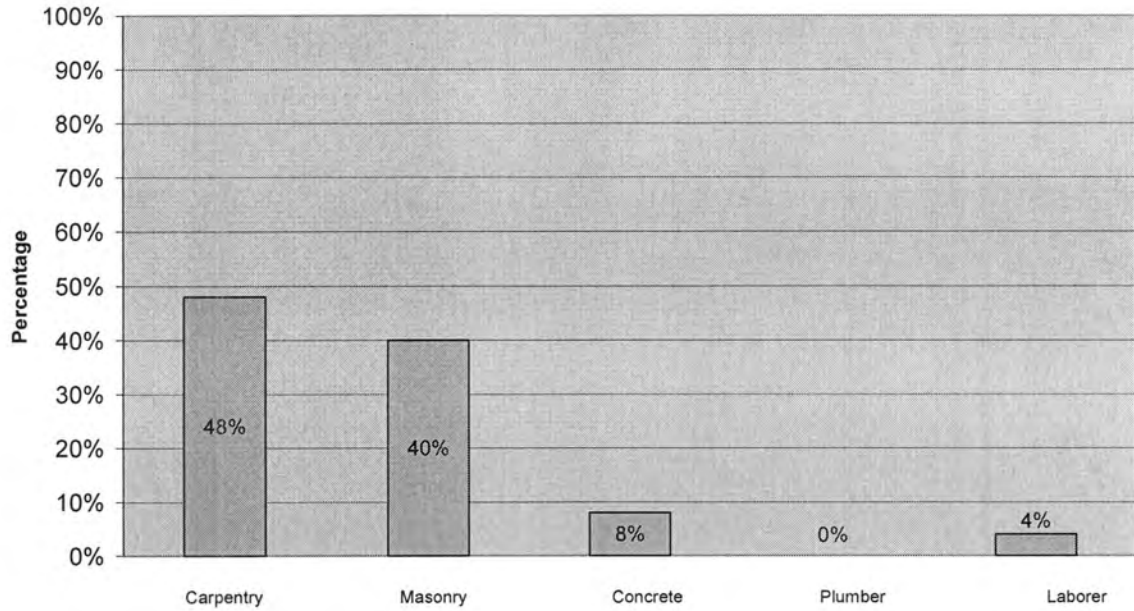
19d. How important would it be to you to have advancements opportunities?



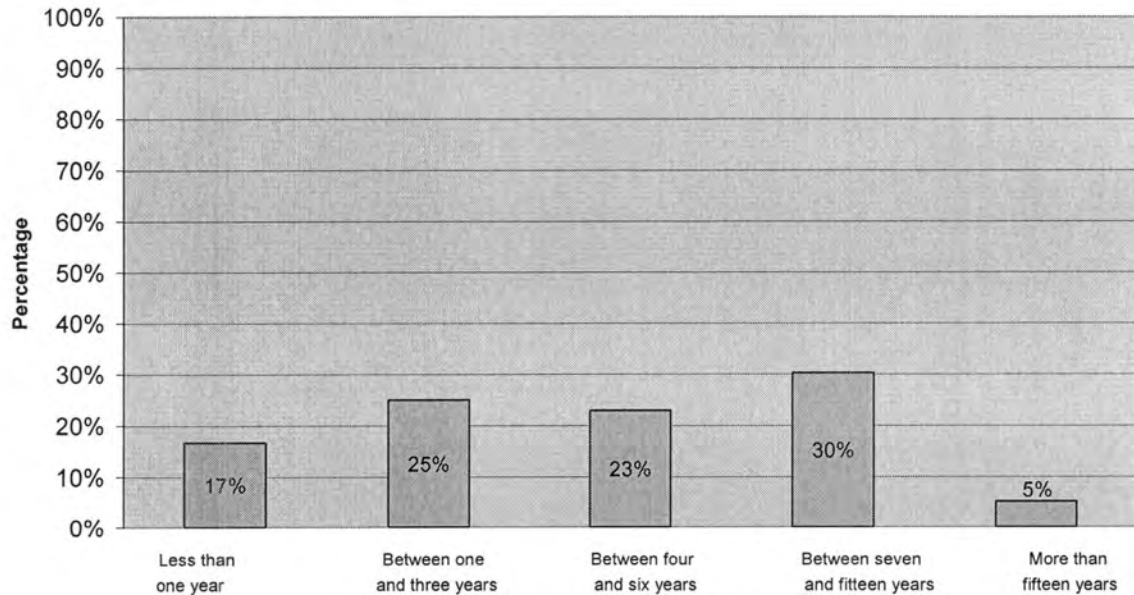
23a. How much experience in construction did you have prior to coming to the U.S.?



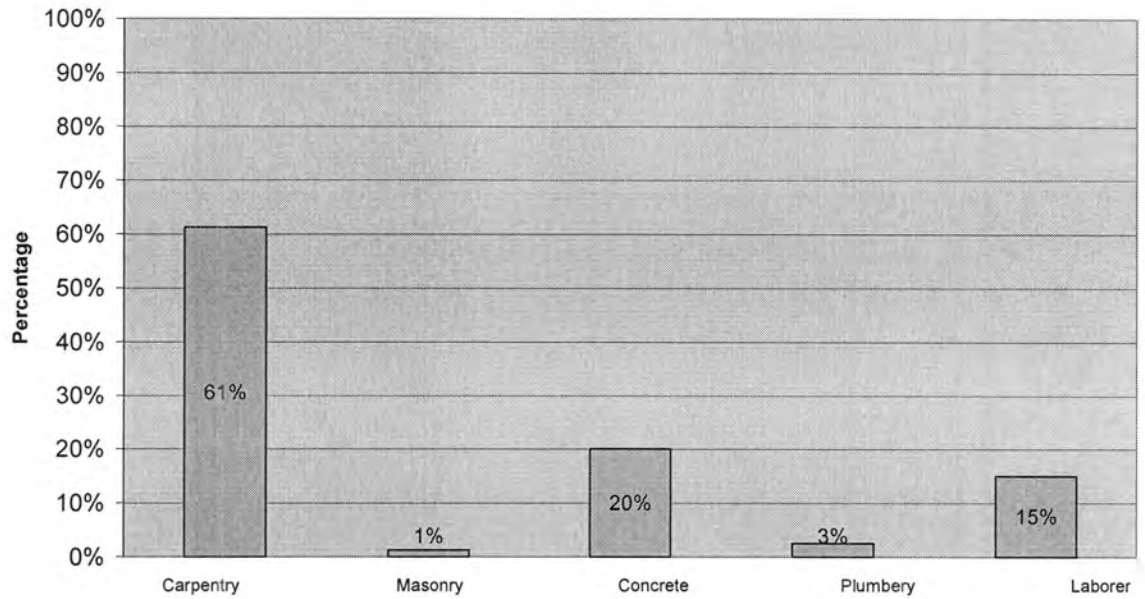
23b. In what trade did you work prior to coming to the U.S.?



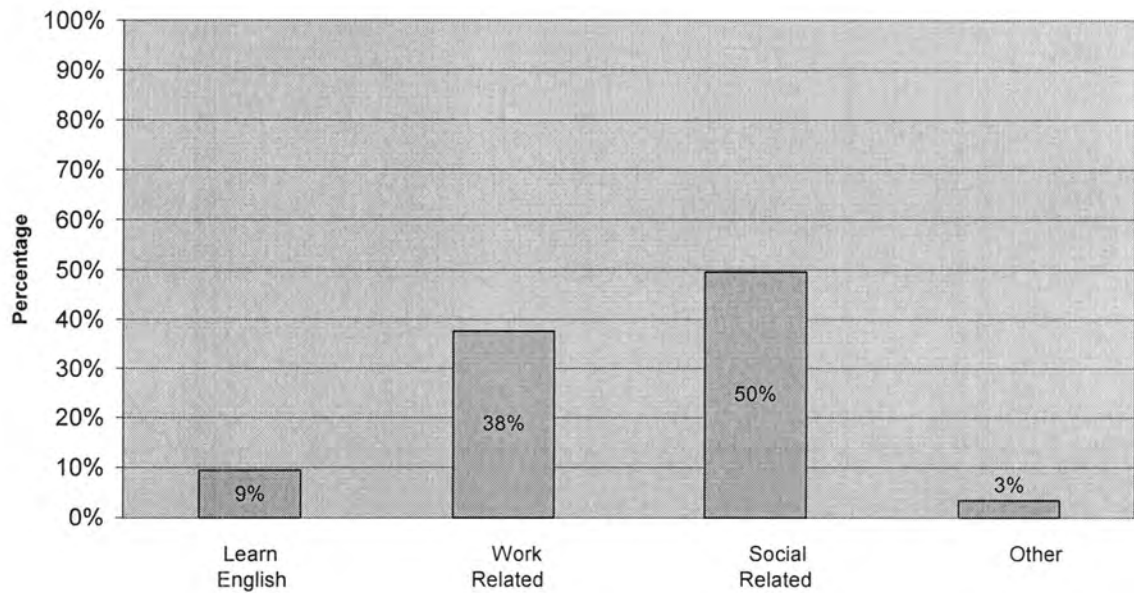
24a. How long have you been involved in construction in the U.S.?

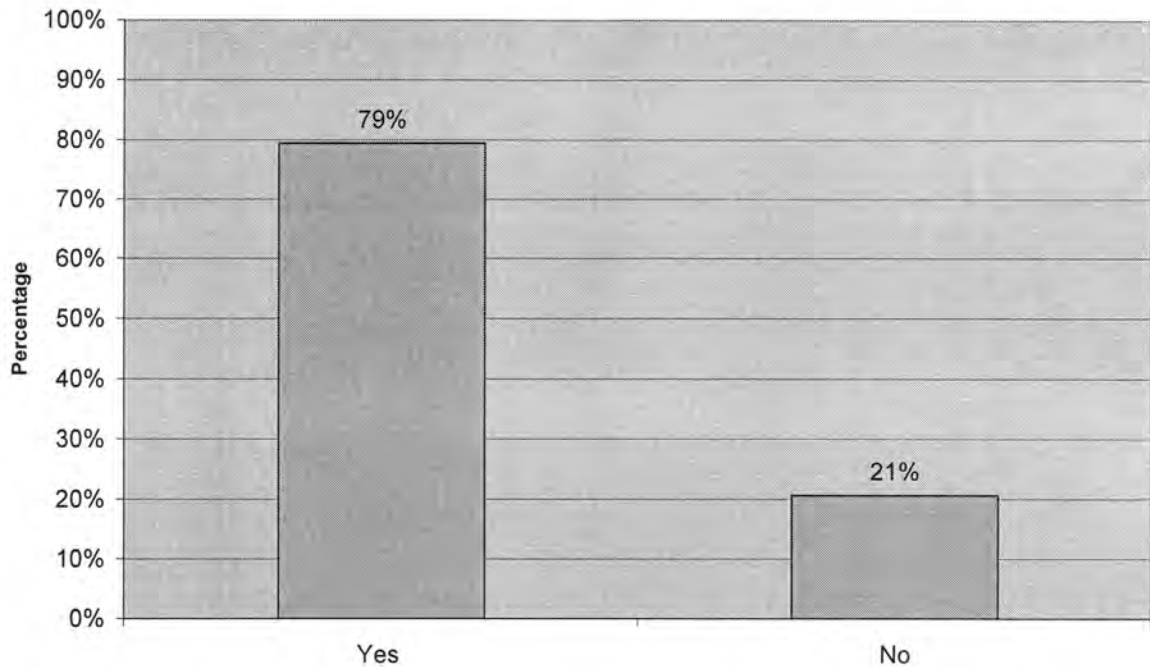


24b. In what trade have you been involved in construction in the U.S.?



32. After having arrived in the U.S. and worked in construction, what are your main goals and expectations for the future?



35. Would you like to take a course to be promoted to supervisor?

A prospective supervisor is expected to be fluent in English, this being one of the initial requirements for advancement opportunities within an American construction company. The analysis of these training related charts led to four influencing factors as follows: (1) the lack of enough training, (2) the existence of the required construction experience, (3) the desire of having advancement opportunities, and (4) the desire of taking training courses such as the stepping up to supervisor course subsequently developed in Chapter Four.

It is vital to note the importance that advancement opportunities hold for a Hispanic construction worker. More specifically, question 19d showed that more than 80 percent of the workers considered it important to have such an opportunity. Question 19c related to the importance of training courses emphasized in construction. More than 83 percent of the

workers considered it important to receive such a course, and only about 4 percent of the workers did not find it necessary. In addition, question 17a showed that only 28 percent of the workers were very satisfied with their company training opportunities to learn new skills.

Besides considering training courses important, in questions 9 and 13, workers showed their desire of learning new skills related to construction in both English and Spanish. In fact, 79 percent of them would prefer a course that combined the two languages.

The role that construction experience plays is also important when deciding to promote a construction craft worker to a supervisory position. Hispanic craft workers had some construction experience prior to coming to the U.S. According to question 23a, 40 percent of these workers had had between one and three years of experience in their native countries, and only 15 percent with more than seven years of experience. Some of the work areas of these experienced workers were carpentry, masonry, and concrete among others.

In terms of construction experience in the U.S., questions 24a and 24b showed that about 58% percent of these Hispanics have already had more than four years of experience working for American companies. Carpentry was the most common trade found among Hispanics at 61 percent, followed by concrete work with 20 percent and construction labor with 15 percent of the total.

Finally, it was also necessary to measure the desire of these workers to grow and step up to a supervisor position. As a matter of fact, when workers were asked whether or not they would like to take a course to be promoted to supervisor, a significant 79 percent of them answered positively. Within the context of this research, a supervisory position is understood as a leadership position which may include a foreman, a crew leader, or a supervisor, depending upon the company's needs.

3.3 Stepping Up To Supervisor

Becoming a supervisor or leader requires a different set of skills to move from actually doing the job to the role of delegating the work to others. The work expectations of the supervisor have been changing to meet the needs that characterize most workplaces. New skills are required to lead effectively in rapidly changing workplaces.

As a first stage of the training course development, an identification of job needs or problems is required. Therefore, survey findings were used in deciding what kind of material should be effectively appropriate for Hispanic construction workers. As part of this identification, prospective supervisors must be alerted to the requirements of the position.

Strategic decisions were made when developing the action plan, methodology, and contents of the course. In addition to making use of existing references on this topic, the researcher adopted information on cultural differences between the American and Mexican cultures obtained from a research study in order to provide a more detailed idea of how the course contents were selectively oriented to both cultures. This will especially help those who will be delivering the course in the future. Findings showed that culture and, more specifically, lack of communication are the major problems involved in construction projects.

Finally, after performing a task analysis and identifying and collecting information, the design of the curriculum was carried out. A detailed course outline was prepared and evaluated. Several steps took place in this stage of phase four as follows: development of lesson plans and instructional materials, evaluation of training materials, consideration of learning styles (Hispanic population), selection of visual materials, integration of instructional techniques, development of monitoring instruments, and suggestion of additional reading materials to be used as a post training process.

3.4 Conclusions remarks

It is clear from the literature review, the design of the questionnaire, the data collection, and the data analysis and evaluation, that a course for training Hispanics with the objective of promoting them to supervisor is necessary. At this point, the research process has reliable data from Hispanic construction craft, which leads to the research team to creation and development of such a course.

4. TRAINING COURSE DEVELOPMENT

4.1 Introduction

The challenges of the American-Hispanic cultural blending in the workplace require close review of training approaches by organizations. The large numbers of Hispanics present in the U.S. construction labor creates substantial issues for developing training material. Communication barriers, involving culture and language issues, are a growing problem at the typical jobsite.

Providing a continuous learning environment for employees is one of the best methods to ensure achieving company production goals. The construction industry is not different, and should not let its diverse workforce prevent it from implementing proper training programs.

Based on available data and the results and recommendations obtained from the surveys conducted from May to October 2003, the researcher developed a training course. This course is intended for Hispanic construction craft workers with the willingness and skills that meet the requirements to advance to a supervisory position within an American construction company.

Some of the Outreach Training Program Guidelines from the Occupational Safety Administration's outreach training program have been incorporated in the design of this course. The course materials should contain at least one page for each topic.

4.2 Systematic approach for training course development

A systematic approach to diversity training is necessary for the development of the proposed course. Goldstein (1993) forces training developers to consider why training is

needed, what should be covered in training, and how training outcomes should be measured. This approach was adapted and simplified for research purposes as shown in Figure 6.

The first stage was described in Chapters Two and Three of this thesis. The course developed within this thesis, *Stepping up to supervisor for Hispanic construction workers*, addresses a combination of current Hispanic workforce issues and survey findings from Hispanic craft workers in Iowa working for American construction companies. Therefore, the intent of this course is to provide instructional material and contents which are based on research findings that will help the Hispanic worker make effective and productive decisions as a newly promoted crew leader, foreman, or supervisor.

Figure 6 indicates that once the needs assessment is complete, training course development can begin. For this process, the course was structured around three main steps that play a critical role in the process of training individuals: (1) Awareness, (2) skill building, and (3) action planning. Having structured the contents, a process of understanding these defined contents is the supplemental part of the course development containing also three steps as follows: (1) How to work with yourself, (2) How to work with an individual, and finally (3) How to work with a group. Each of these three sequential steps are related to the structural components, some more than others, but the goal is to follow an effective combined path.

In addition, it is recommended for the first structural component, *Awareness*, that multi-cultural training processes begin by informing participants of organizational facts, differences in the workplace, projected demographic changes, risks involved in the job site, and accident rates among others. This should lead to increased trainee motivation, interest, and/or attention.

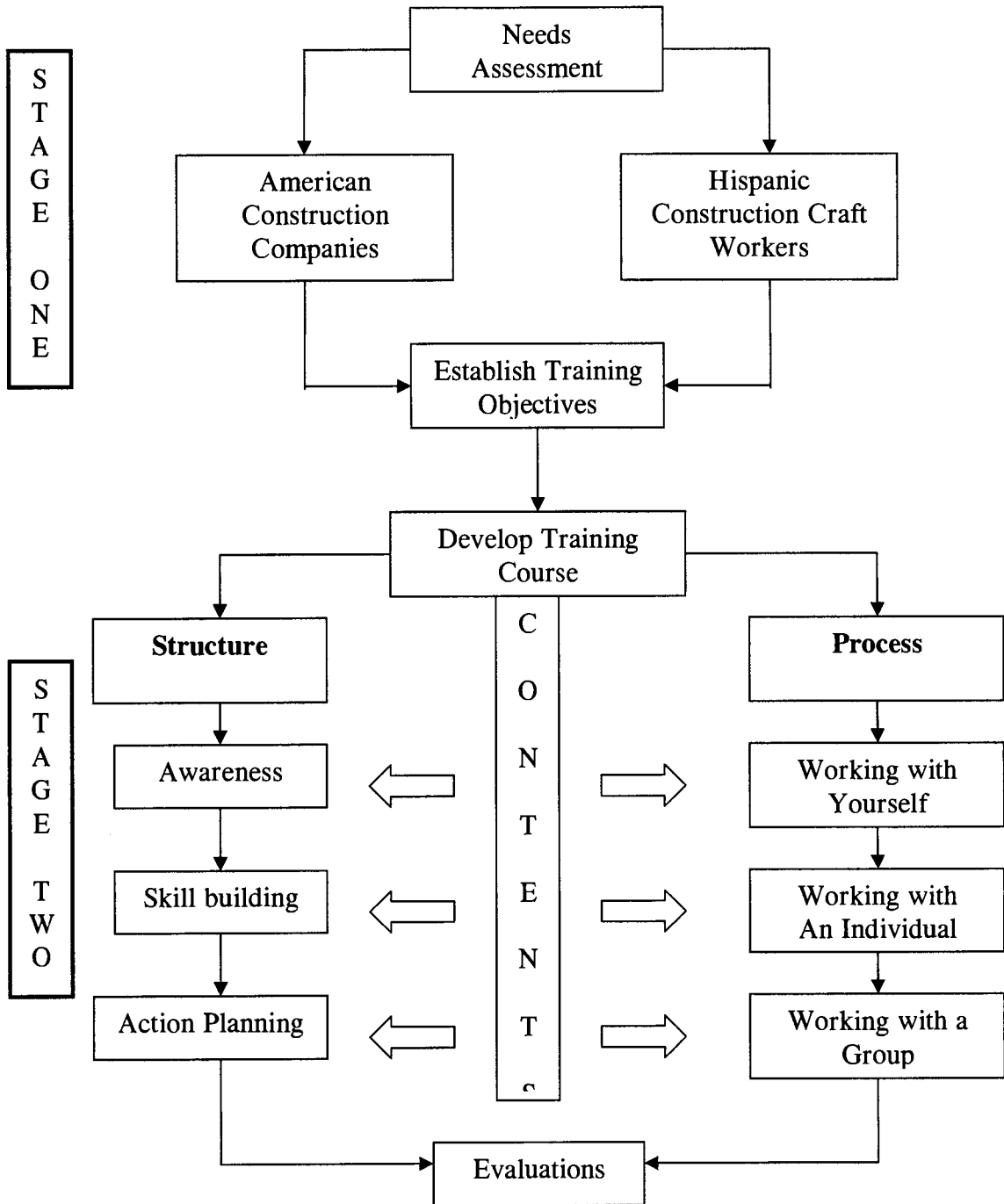


Figure 6. Approach of training course development

After being more aware of the actual working environment and possible changes, the attainment of knowledge and *Skills building* for new adjustments, challenges, and behavioral changes can start (Kraiger, 2002). It is very important to stress attention on differences about cultural norms, attitudes, and values between majority (American) and minority (Hispanic) groups.

Since this is the unique emphasis provided by this course, this type of training course should be developed and delivered by not only a qualified trainer, but by a person with a multicultural background as part of a long-term process.

During the *Skills building* component, participants should also have opportunities to observe both appropriate and inappropriate behavior, have experience working with cultural issues and conflicts, and finally receive encouraging criticism to make needed adjustments. As an example, workplace situations are useful at this stage such as group discussions in which issues can be identified and improved. This identification of real-life scenarios becomes crucial in the case of Hispanics working in the U.S. Some of these workers may have already had faced situations where culture is the barrier, but others will not even understand what is going on due to the lack of language, or simply, to cultural differences.

These are the types of skills that must be delivered to Hispanic trainees. They need to understand why and how those situations may be encountered on the job site. Once they clearly understand the cultural facts, training materials aim to provide appropriate alternatives which can be applied after the training program is completed.

The last structural component is called *Action Planning*. It concludes the preceding *Skills building* and *Awareness* stages; without it, the training approach would be unsatisfactory. This stage is the result of the training process; therefore, trainers are to make

sure that it has been successfully attained. During this stage, problem-solving and process-improvement activities are discussed and should be developed when delivering the training course.

In addition, trainees (in our case, prospective Hispanic supervisors) are required to develop an action plan after they have identified the challenges, changes, and issues involved in this transition. A plan must be developed that concludes the new roles and responsibilities that advancing to supervisor entails.

The contents of this course were chosen according to what a Hispanic construction craft worker needs to know with regard to stepping up to a supervisory position within an American construction company. More specifically, these contents were given a Heavy /Highway type of emphasis because the majority of the survey findings were obtained from this field of the construction sector.

4.3 Description of cultural differences between American and Hispanic cultures embedded in the course contents

In order for training course developers and trainers to achieve positive outcomes, they must pay more attention to the development, delivery, and evaluation of diversity training initiatives. Developers of training courses for Hispanics must take into consideration cultural differences with respect to the mainstream American culture. In addition, the researcher suggests that as the U.S. construction labor force becomes more diverse, successful leaders will owe some of their success to the experience of working in multicultural environments. The goal of this description is to help trainers respond to possible challenges posed by Hispanics. Some of the skills to develop include the capability to demonstrate respect and understanding, to communicate effectively, and to work collaboratively with people from

Hispanic background. Special effort must be made to help trainees learn new skills to overcome the group differences. This will increase worker effectiveness and help avoid the risk of creating threatening stereotypes.

It is important to understand what is meant by “culture” for this model. According to Geert Hofstede², culture is the collective programming of the mind that distinguishes the members of one group or category of people from another. More specifically, this author defines culture as the part of our conditioning that we share with other members of our nation, region, or ethnic group but not with members of other nations, regions, or groups. In Hofstede’s model, there are four main dimensions for describing cultural differences: 1) large or small power distance, 2) individualism versus collectivism, 3) masculinity versus femininity, and 4) strong or weak uncertainty avoidance. (Journal of International Business, 1983) The fundamental issues (as defined by Geert Hofstede) for each of the four dimensions with a graphical comparison between the U.S. and Mexican societies. These numbers were extracted from a study done by Hofstede which compared aspects of national character across countries, assigning an index value from 1 to 100. For the development of this course, Mexico has been used as the country to be compared with the U.S.³

Power distance refers to how society deals with the fact that people are unequal. In organizations, the level of power is related to the degree of centralization of authority and the degree of autocratic leadership. Hofstede established some relationship among these four dimensions such as power distance and collectivism. Collectivist countries always show large power distances, but individualist countries do not always show small power distances. Also

² Geert Hofstede was the Director of the Institute for Research on Intercultural Cooperation in 1983 at Arnhem, the Netherlands. He has worked as a manager in industry and as an academic teacher and researcher in a number of international institutes in Europe.

³ Mexicans comprise the largest (58.5%) Hispanic ethnic group in the U.S.

poor countries tend to be collectivist with larger power distances, which is very easily found in Hispanic construction workers.

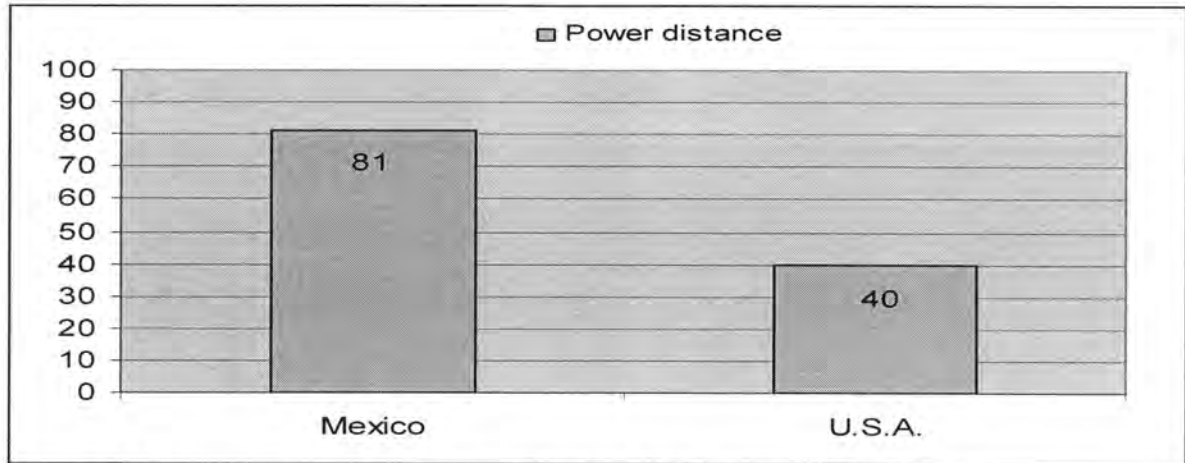


Figure 7. Comparison between Mexico and U.S.A. according to power distance

Individualism versus collectivism involves the relationship between an individual and his or her fellow individuals. There are two ends: one, societies in which ties between individuals are very loose, that is, everybody looks after his or her own self interests; and two, societies in which the ties between individuals are very tight, that is, everybody looks after his or her group's interests. In this aspect, the Hispanic population falls in the second end, where friendships prevail over tasks and loyalty is very valuable among group members and between bosses and subordinates.

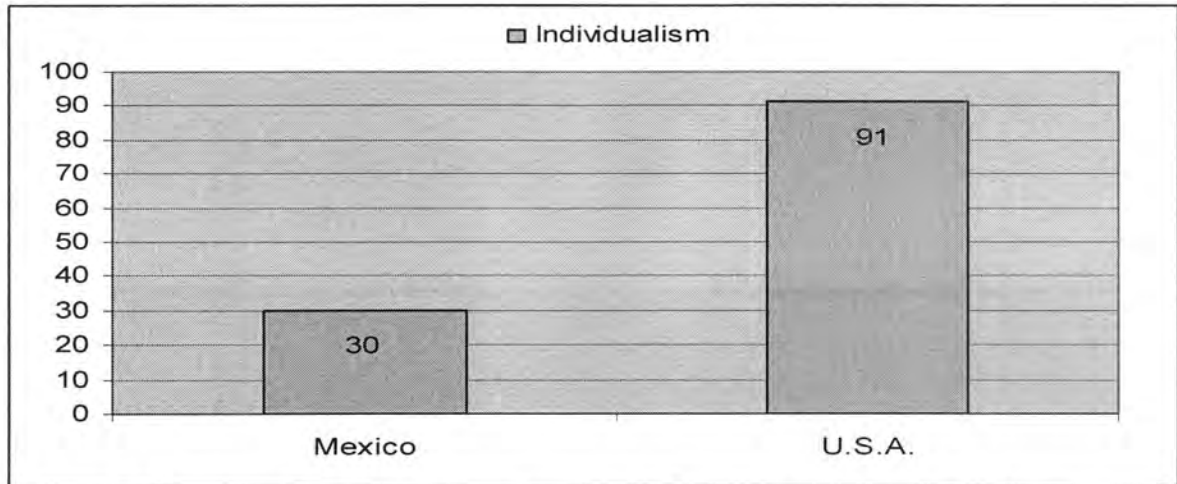


Figure 8. Comparison between Mexico and U.S.A. according to individualism

Masculinity versus femininity is related to the division of roles between the sexes in society. Hofstede (1983) affirmed that all societies have to deal with the fact that one half of mankind is female and the other male. Human societies, however, have associated other roles to men only, or to women only. This is part of a socialization process, rather than biological sex role. Latin countries such as Venezuela and Mexico are considered to be quite masculine.

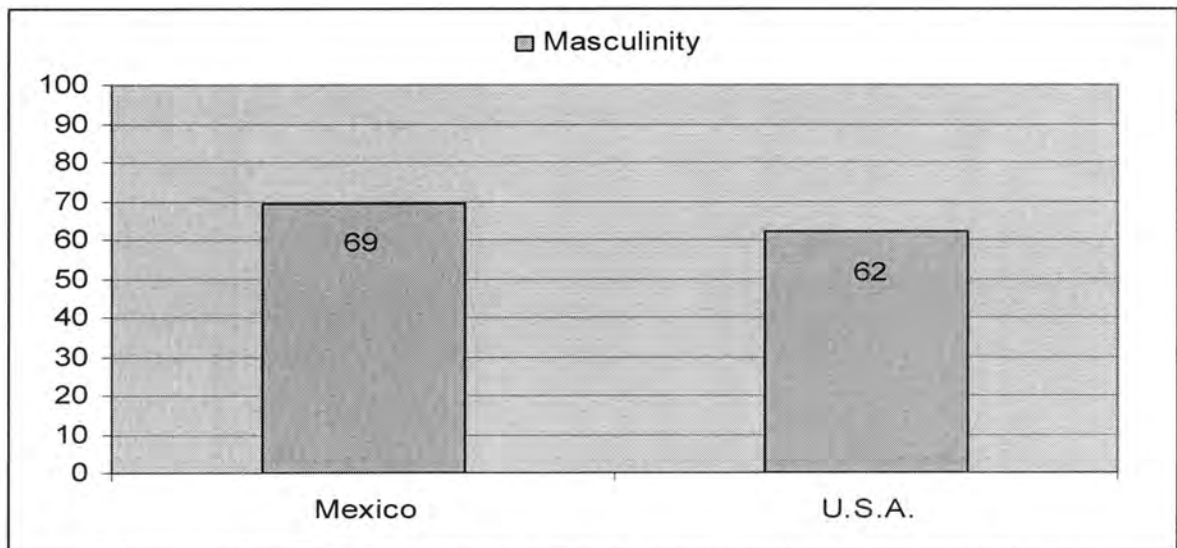


Figure 9. Comparison between Mexico and U.S.A. according to masculinity

Uncertainty avoidance indicates to what extent a culture can program a member to sense different, unknown, or surprising situations. The two ends of this dimension are related to how strong or weak members accept or avoid uncertainties. Groups with weak uncertainty avoidance tend to accept the fact that future is unknown and therefore accept each day as it comes. On the other hand, other societies tend to “beat” the future by creating security and avoiding risk. In this dimension, there exists a clear correlation between power distance and uncertainty avoidance. According to Hofstede, Latin countries showed strong uncertainty avoidance with a large power distance, whereas for the U.S. society and other Anglo countries, an opposite correlation was found, that is, small power distance and weak uncertainty avoidance.

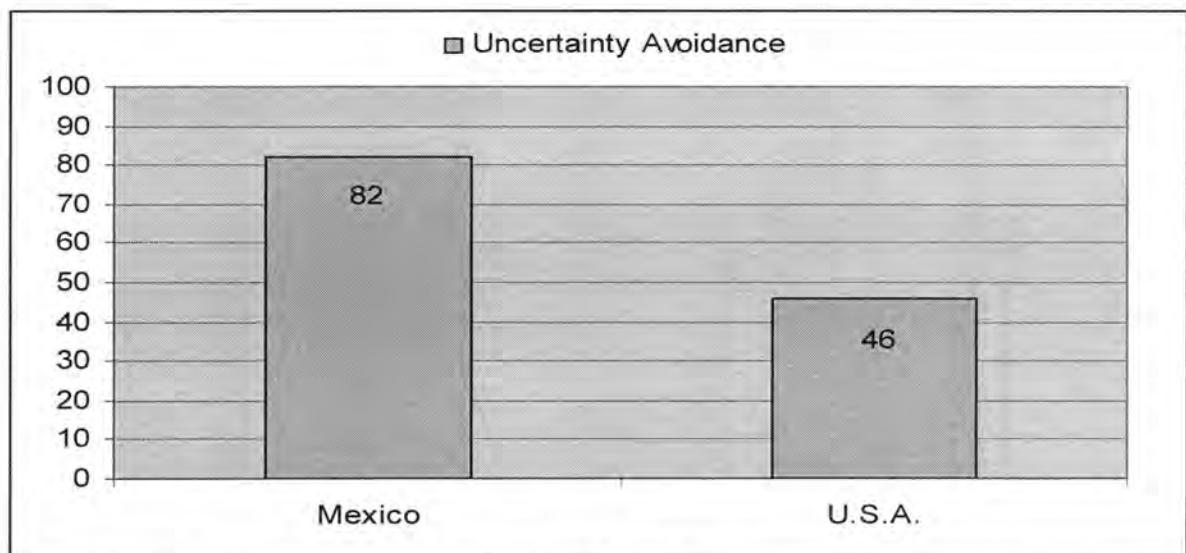


Figure 10. Comparison between Mexico and U.S.A. according to uncertainty avoidance

Table 6 describes some examples of national culture values which will help trainers better understand the impact of cultural differences on the jobsite.

According to the Hofstede's findings on both the Mexican and American cultures, it is concluded that in the work place, Mexicans, as subordinates, expect to be told what to do,

see hierarchy as an existential inequality, and consider their boss as a benevolent autocrat.

Also, because of their collectivism, they see relationships more important than tasks.

Most of these cultural values and differences between the Mexican and American cultures are embedded throughout the course contents of the *Stepping up to supervisor for Hispanic construction craft workers* training course subsequently provided.

Table 6. Comparison of general aspects between Mexican and American cultures

Aspect	Mexican	American
<i>Work/leisure</i>	Works to live Leisure considered essential for fill life Money is for enjoying life	Lives to work Leisure seen as a reward for hard work Money often end in itself
<i>Direction/delegation</i>	Traditional managers autocratic Younger managers starting to delegate responsibilities Subordinates used to being assigned tasks, not authority	Managers delegate responsibilities and authority Executives seeks responsibilities and accepts accountability
<i>Theory vs. practice</i>	Basically theoretical mind Practical implementation often difficult	Basically pragmatic mind Action-oriented and problem solving approaches
<i>Control</i>	Still not fully accepted Sensitive to being checked on	Universally accepted and practiced
<i>Staffing</i>	Family and friends favored because of trustworthiness Promotions based on loyalty to superior	Relatives usually barred Favoritism not acceptable Promotion based on performance
<i>Loyalty</i>	Mostly loyal to superior Beginnings of self-loyalty	Mainly self-loyalty Performance motivated by ambition
<i>Competition</i>	Avoids personal competition Favors harmony at work	Enjoys proving oneself in competitive situations
<i>Time Planning</i>	Deadlines flexible Short-term due to uncertain environments	Deadlines and commitments are firm Long-term due to stable environments

5. TRAINING COURSE CONTENTS

The goal of this training course is to provide an effective tool to help the promoted Hispanic craft worker prepare for his/her new supervisory position, manage new responsibilities during the transitory period, and finally become a successful supervisor always looking for opportunities for improvement and working in a safe environment.

The following include the contents of the course by topic and subtopic:

Introduction

- It is different to be a supervisor
- The supervisor's role
- Facing the challenge
- How to handle new responsibilities
- Recommendations on how to be a successful supervisor

Part I: How to work with yourself

- Leadership
- Attitude
- Motivation
- Productivity
- How to deal with stress and anxiety
- Decision making
- Problem solving

Part II: *How to work with an individual*

- Factors influencing individuals
- Giving workers your opinion about their performance
- How to instruct your workers
- How to evaluate your workers
- Setting goals
- Disciplinary measures
- Terminations

Part III: *How to work with a group*

- Selecting and managing your crew
- Taking advantage of your crew members' skills
- Involving others in the decision making process
- Dealing with complaints
- Putting together an effective work team
- Job site meetings
- Crew performance

Part IV: *Key points*

- Weekly and daily schedules
- Getting the resources you need
- Assuring quality
- Enforcing safety
- Scheduling overtime

- Supervising friends
- Common mistakes

Evaluating *yourself*

INTRODUCTION

- It is different to be a supervisor
- The supervisor's role
- Benefits of being a supervisor
- How to handle new responsibilities
- Recommendations on how to be a successful supervisor



It is different to be a Supervisor

1. After years of experience as a construction craft worker, you have been selected to advance to a supervisory position like your immediate boss's. Therefore, now you have to lead and report instead of just following.
2. You may experience some difficulties with former co-workers
3. In this position, you are now in the middle; that is, you will have workers to supervise and bosses to report to.
3. The fundamentals you will need to be a successful supervisor in the future are not necessarily the ones that helped you to be promoted to this position.

- Consider that many of your co-workers have been waiting for this opportunity as long or, perhaps, longer than you have and therefore not everyone may be pleased with your promotion.
- Authority figures vary from one culture to other. Some of your people may be more sensitive to being supervised than others.
- You will have to deal with rejection from some people with whom you used to work comfortably.

→ Experience plays an important role at this stage. Talk to former supervisors who can guide you in facing these new challenges. Accept the new position with a positive attitude from the first day.



The supervisor's role

1. The role of a supervisor will not always be easy; it will be a matter of attitude.
2. Supervisors must achieve a stronger authority position when facing new challenges.
3. New additional responsibilities:
 - The combination of satisfying (reconciling) not only your boss, as you have so far, but also your new crew members at the same time.
 - You are responsible for your crew's performance, which will be measured upon your own and your crew members' outputs.
 - In most cases, you to decide who will be the members of your crew.

- Make sure you clearly understand your responsibilities and those assigned to your crew members.
- You have to train your people, especially the one person who will substitute for you (temporarily) when you are not on the jobsite.
- It is your responsibility to get the job done.
- Although at the beginning it may be somewhat difficult, try to think about how your workers will react when you ask them to do something.

→ *Keep in mind that this is a new different role from what it used to be, even if you are still working for the same project or company.*

Tips:

- Be reasonably sensitive in your day-to-day activities

Benefits of being a supervisor

1. Opportunities to learn and develop new skills
2. Increased job satisfaction by now being responsible for the work you used to do
3. The possibility to obtain a better salary
4. Increased self-confidence
5. Upgraded standard of living
6. Exposure to new job opportunities as the one you just obtained.

- Take advantage of this opportunity to help your people now with additional power.
- It may appear difficult to take on so many responsibilities. But keep in mind that usually people will thank their bosses at the end when they have successfully passed the transition.
- You will be capable of responding to new challenges.

→ Be patient and maintain your positive attitude, benefits will come differently this time; they might take longer but more rewarding than expected

How to handle new responsibilities

1. The transition, considered as the initial stage of your supervisory career, is seen as the most critical one.
2. Use your experience now to create a new work style according to your new occupational requirements.
3. Before you take actions, you need to control them by planning and establishing parameters and limits.
4. The degree of firmness of your actions taken at the beginning will determine the value of your performance.
5. Recall advice from experts on newly upcoming challenges before facing them.

- Treat your crew members equally, and do not forget that you are still the same person but now with authority over those that, perhaps, are still your friends.
- Be humble.
- Keep working hard.
- Accept criticism from whomever but only retain the constructive ones.
- Always consider different ways of doing the same task

→ There is nothing wrong with asking for advice from your new boss; on the contrary, you will learn his techniques. Remember that the fact that he is in that position means that he has already been through your position and felt the same way.

How to be a successful supervisor

1. Establish authority from the very first day. You have to prepare this authority position in advance.
2. Learn more about the company you are working for. Finding out about previous successful and ongoing projects will give you the big picture of what your company expects from you as a supervisor.
3. Present a strongly natural and positive image.
4. Strive for a safer environment and a higher quality work on time and under budget.
5. Communication requires listening and speaking effectively with both your boss and your crew members.

- Encouragement must be followed by recognition of your worker's accomplishments in order to achieve a complete success
- Soliciting advice from your workers may mean showing confidence in their capabilities; watch out for differences among opinions.
- At this point, you already know what it feels like to be in a craft worker position. Use this experience to avoid making the same mistakes that your previous supervisors made.

→ Now you have the opportunity to help reduce those barriers that keep people from succeeding productively and safely. Show and maintain a winning attitude and do not give up, even if it seems almost impossible to be successful

Tip:

Your style may change according to your job conditions. The best approach is to match them effectively.

PART I: HOW TO WORK WITH YOURSELF

- Leadership
- Attitude
- Motivation
- Productivity
- How to deal with stress and anxiety
- Decision making
- Problem solving

Leadership

1. The first thing to work on is your attitude.
2. Understand what it means to possess and transmit a leader's authority.
3. An appropriate combination of politeness and firmness makes it easier for workers to follow your orders.
4. Generate a clear understanding of your responsibilities, particularly about implementing a team work spirit.
5. Develop confidence, trust, and support in your own ability to get tasks done, but at the same time be humble.

- Authority must be clearly understood because you are not in a position to succeed at the crew's expense, but to encourage success through team work.
- "There is a problem with...". This philosophy puts crew members in a defensive and negative mind-set. Always try to find a positive and polite way to ask for things. You should request not demand.
- Avoid the trap of becoming a dictator: Develop a strong leader personality in a gentle but firm manner.

→ *Be always courageous*

Be aware that you want to find new improvement opportunities and safer work environments, which involve more risks, therefore act prudently and results will come positively.



Part I: How to work with yourself

Attitude

1. A supervisory position requires a continuously positive attitude. Your crew members' productivity will depend on how encouraging you are to them.

2. This attitude must be kept up consistently, even under adverse circumstances.

3. Be honest with yourself, you are not expected to know everything, therefore do not feel bad about not knowing something; rather learn about it.

4. Review your work day achievements. Feel good about them, but also learn from your mistakes. This is experience.

5. Always listen carefully to your employees concerns. Develop the ability to prioritize which complaints are more valid than others. Be a good listener.

- Remember that in this new position you will usually know more than those workers who work for you. Therefore your attitude towards teaching your knowledge will be the base of their outcomes.
- A supervisory attitude should always express friendliness, and patience when necessary.
- You are now the leader of your team.

→ *Attitude starts with greeting your crew members in the morning, expressing appreciation for the efforts and assistance of your workers during the day, and ends with a positive such as "see you tomorrow".*

Part I: How to work with yourself

Motivation

1. Understand your motivation process. What motivates you to work, Is it the money?, Achievement?, Recognition?, Family work pressure?

2. Provide a motivating environment based on the fact that you need your employees more than they need you and that they understand what motivates each of them.

3. Be motivated to create an environment that challenges, appreciates, and respects your crew members. This should take into account that different individuals are motivated by different things.

4. Motivate yourself to develop and encourage your workers' involvement by initiating discussion about their developmental skills, providing them with constant feedback about their work, and asking for their expectations and needs on a regular basis.

- Workers come to work each day hoping that some of their needs will be satisfied that day.
- Establish the rules at the beginning and make them clear
- Provide the tools, materials, and safety equipment in place and on time required by the type of activity and those particularly asked by your workers.
- When changing job conditions, communicate in advance new approaches, directions, and priorities.

→ Motivate yourself to grow everyday and transmit a healthy motivational attitude that will lead you to grow as a person focused on your job.

Part I: How to work with yourself

Productivity

1. Now, as a supervisor, your productivity is obtained from what you produce plus the sum of what your workers produce for you.
2. Planning ahead is essential and will show you what and how to perform and get the work done in advance.
3. Establishing challenges is the key to productivity improvements. Be specific with the amount of work required to be done during a certain period of time, and when you or your workers find a promising opportunity for improving a task, accept it and try it.
4. Make records and document everything in writing will play a big role in achieving better production.
5. You must get used to carrying a notebook or pad (something to record things)

- You should always want to improve productivity. Since this is the product of a planning plus constantly effective execution between you and your team members, you should always ask for their new ideas of how to perform the work better. You can do so by listening to them and encouraging them to look for opportunities for improvement.

→ Keep in mind important daily and weekly production rates. Be clear with how much work you are expecting to get done every day, and let your crew know quantities and time for it.

Avoid:
- lack of materials, supplies, equipment tools, and manpower

Part I: How to work with yourself

How to deal with stress and anxiety

1. Understand and accept that stress will be present at different levels where assignments exist. Becoming a supervisor involves stress. You can manage and channel it.

2. Control stress effectively by creating the right channels to eliminate it before it becomes a negative factor.

3. Avoid ineffective solutions such as alcohol, drugs and medications, as well as the easy way out (such as quitting the job). Rather, identify the causes of stress and reduce them as possibly as you can.

4. Supervisors constantly face situations that seem to be out of control. Therefore, first decide what your goals and capabilities are and then take responsibilities.

5. Do not hesitate to ask for help if a situation appears to be out of control.

- A good combination of the amount of work and the leisure time will lead to reducing levels of stress.
- You, as a worker, have to balance the new stress created by being promoted.
- Your culture tends to spend a great amount of time in recreational and family activities, and now with your additional responsibilities as supervisor, it is likely that the combination can be unbalanced and therefore stress arises

→ Stress is commonly associated with negative consequences; however, it is necessary to keep some stress in a positive way which will force you to be creative and productive.

Common Causes of Stress:

- deadlines
- goals
- meetings
- conflicts
- problem workers
- lack of skills or

Part I: How to work with yourself

Decision making

1. This process contains two parts: *what* decision and *how* to make it. Both of them are different in your supervisory position.
2. As a craft worker, your contribution was less visible and influential to this process; now you make the decision.
3. Making decisions depends on different factors. Therefore, decisions vary from one to another. In addition, the way you make these decisions will, of course, vary depending upon each situation.
4. You may have to: (1) tell employees your decision, (2) rely on others to make a decision, (3) put together your and their opinions to make a decision, and (4) delegate responsibility to other/s and become a coach in the decision making process.

Since this a process, you should try to follow the following steps in order to make the right decision:

- Define the problem
- Find all the influential factors and information
- Determine evaluation criteria
- Generate potential alternatives
- Choose the most appropriate alternative
- Develop a plan to develop the chosen alternative
- Announce and implement the plan

→ *At this point is when your additional cultural advantage may help you choose the right decision and announce it adequately to your workers.*

Tips:

Make sure you follow this procedure:

1. Decide whether or not the decision is necessary.
2. Ask yourself if you have the authority to make that decision.
3. Make sure you have all the information necessary to make the decision.

Part I: How to work with yourself

Problem solving

1. Now, you need to solve those problems you used to encounter as a craft worker. This is another component of the supervisory challenge. Be aware of it and make it part of your daily tasks.

2. A problem is solved successfully when the right decision is made. This process depends upon how you apply your decision making skills (previously presented) and the results will be a combination of the two.

3. A person may respond to a problem either inactively, (ignoring the situation and assuming that it will go away) or reactively, (analyzing the causes and remedying the problem), or proactively, (anticipating the problem through planning to reduce its impact if it is to occur). You must be proactive.

- An effective solution is to be prepared for the future before it arrives.
- Identify affecting factors and then prioritize them according to their impact
- Use your records as part of the solving process because some of those problems may become repetitive and you will have to use the same approach to solve them again.
- In the past, you could see that problems happen. Some can be avoided but others cannot, minimize what problems you can.

→ Be proactive at solving problems, it is easier, faster, and less costly to anticipate problems rather than solving them when they occur.

Suggested Techniques:

- focus
- be clear, accurate, and honest
- give feedback to your employees
- inform employees of new changes
- listen carefully and pay attention

PART II: HOW TO WORK WITH AN INDIVIDUAL

- Factors influencing individuals
- Giving workers your opinion about their performance
- How to instruct your workers
- How to evaluate your workers
- Setting goals
- Disciplinary measures
- Terminations



Part II: How to work with an individual

Factors influencing individuals

1. An individual may be influenced by internal and/or external factors. You act as an external influence. Internal factors refer to the individual's abilities, values, needs, and interests, whereas external aspects are from those conditions surrounding the individual.
2. To work with the individuals of your group you need to know their expectations, give opportunities, evaluate performance, provide feedback, and offer reward or punishment.
3. Some individuals require different attention; remember that you will have to approach some individually to get full cooperation.

- Do not exceed his/her limits by making unreasonable demands. Keep your promises about rewards or punishments.
- Try to keep yourself up to date as far as knowledge and practice is concerned. Be available as much as possible, providing guidance and solving requests.
- Establish your relationship limits with each individual, build an honest relationship and do not ever ask for something illegal or that violates the individual's values.
- Do not ask anyone to do something that you would not be able and willing to do yourself

→ *Be aware of the impact that an individual can have on the group. Approach your people at the right time and in the right place.*

Tips:

Know people in your crew individually

- needs
- interests
- motivation

Part II: How to work with an individual

Giving workers your opinion about their performance

1. Your opinion will be the key for workers to knowing whether they are doing right or wrong. Therefore, if you do not express your opinions to them, they will assume that they are performing an optimal job. When they see their co-workers being promoted, however, they may conclude that they did not do as well as the promoted.

2. Feedback comes in three types: informative, reinforcement and corrective. If change is the solution, the best way to express your feedback is in a corrective manner. Be clear, make sure they understand your opinion and ensure they will follow thoroughly.

3. Select the most important aspects of their performance as soon as you can, describing your interests, suggestions or new

- Your feedback consists of informing the individual of positive or negative outcomes, and also of a comparison between their performance and expectations agreed upon previously. Be specific; instead of letting them know that they are doing a “good job”, be quick and precise on the details
- When correcting someone’s performance, do it privately, not in front of somebody else
- All people are valuable; therefore, make sure you let them clearly know that what you are evaluating is their performance, not them as persons

→ *It will take some time for your crew members to adjust to new corrective procedures. Be patience but firm, and constantly monitor new processes on an individual basis.*

Tips:

- Individuals expect honest evaluations of their performance
- Set clear goals and expectations about performance

Part II: How to work with an individual

How to instruct your workers

1. One of your goals as supervisor is to improve individual performance. In the long run this represents an improvement in total work group performance. Some workers will need to be trained more than others in different areas.
2. Once you have identified the areas in which your people need training, you need to prepare materials and procedures. When training, make proper use of training aids according to individual needs. Combine your training material with your personal experience and present practical cases in which trainees can actively participate.
3. Instruct by example, teaching your crew how they should go about performing a task.
4. People will feel grateful if they see you interested in their

- Perform the activity first emphasizing on what should and what should not be done, explaining potential risks and expected results, especially when equipment is involved, keep in mind that safety is a top priority
- Once you have shown how to perform the task, make them show their understanding and provide feedback
- Ask if there is any questions, concerns or whether they have a more effective approach to do the same task.

*→ Instruct others as you would like to be instructed yourself.
Do not be afraid about teaching people in your crew.*

Tips:

Exercise real-life situations in which your workers have the opportunity to practice prior to doing the real work.

Part II: How to work with an individual

How to evaluate your workers

1. Since you are in a middle position between your subordinates and management, you need to report your group's performance to your boss. Keep in mind that this is an ongoing responsibility as a supervisor.
2. Select individuals who are not fully performing from those who in fact are exceeding your expectations. You may now start the evaluation process.
3. You must compare the results achieved with the job requirements. Quality, quantity, cost, and time must be evaluated. You must look for bad habits, misunderstandings, communication barriers and safety issues.

- Follow the evaluation criteria so you do not overlook any factors that may affect your workers' performance.
- Evaluate your workers according to their physical capabilities, which may be easily measured, and to their attitude towards the job, which will require a closer evaluation.
- Total honesty is required when evaluation is performed.
- A complete evaluation not only consists of telling your workers what is wrong. It also means explaining why it is wrong and teaching them how to correct and do it right next time.

→ If your workers know from the beginning what their results should be, then when being evaluated, they will accept your corrections more easily.

Procedure Tips:

- Monitor progress.
- Evaluate results.
- Give feedback.

Part II: How to work with an individual

Setting goals

1. In order for an individual to achieve a goal, a development plan is required. You must ask yourself two questions: What is to be performed and which procedures are to be followed?
2. Most of time there is always something to do. Be specific and clear when listing delegated activities. Define who would perform those activities the best. Provide a clear and detailed plan, start/finish dates, and schedules so that your workers can get the idea from the very beginning. In case of changes, approach them and let them know of any changes, modifications, and so on.
3. Make each individual set their own goals and help those who, need help to overcome any personal shortcomings, provide help, but you should make sure your help works effectively.

- Establish dates for reviewing work progress. Each individual will know by when they should get the work done.
- Let your workers get involved when making decisions. Their satisfaction will be significantly influenced by their degree of involvement.
- Always challenge your workers and give deserved reward.
- Present practical examples at the time of delegating the work to them.

→ *After achieving your goals, no matter what kind of outcomes you have, you still have to give feedback to each individual or reward them if necessary.*

Tips:

-Establish weekly and daily tasks and schedules.

Work
Time

Part II: How to work with an individual

Disciplinary measures

1. As you have just become a new supervisor, make sure that before you take any disciplinary actions against an individual, you know and follow the established company procedures.
2. When a problem arises, the first step to follow is to identify how serious the problem is. Based on its severity, take some appropriate action.
3. Try to follow procedures by first verbally warning the individual. A second warning should be in writing. Fire the employee if necessary.
4. Be understanding when listening to excuses. If you are not convinced, do a check to verify that the individual is telling the truth.

- Try to avoid these types of actions, especially during the first two months of you supervisory position. During this time you will gain experience and opportunities to learn more about disciplinary procedures.
- Contact your boss or someone who knows the procedures correctly.

→ Always take disciplinary actions in private, and do not talk more than is necessary. DO NOT hesitate, even if you are a new supervisor, to act promptly and ask for advice if necessary.

Tips:

Written records such as warnings will help you explain why the termination was made.

Part II: How to work with an individual

Terminations

1. Getting to this point means that you have already taken the action recommendations provided in the previous page (*Disciplinary measures*) and you still have problems with that specific individual. Review the prior disciplinary actions and check to confirm that you have followed the procedures properly.
2. If you decide that a person has to be fired, then prior to doing so talk to your boss about this decision. It is clear among the group members when someone is not doing the job properly. Pay attention to other individuals before making any decisions.
3. Express your obligations to your group, and then to the individual. Be completely honest and straight to the point.
4. After termination be sensitive, do not blame, and focus on

- Try to be clear when terminating someone, and if necessary, explain the procedure of termination you followed to get to that point.
- Establish your rules from the beginning as far as warnings and probation time periods is concerned.
- Remember that if no improvement during the probation time was made, then remove the individual from the group, but keep in mind that by doing so you still will not solve your problem with performance.

→ Do not terminate an individual before having made sure that you follow every step of the company procedure. Add authority; be straightforward, understanding and positive.

Tips:

Make sure you have followed this process before making a termination decision:

1. Evaluate.
2. Place the individual on probation.
3. Have your supervisor review the decision.

PART III: HOW TO WORK WITH A GROUP

- Selecting and managing your crew
- Taking advantage of your crew members' skills
- Involving others in the decision making process
- Dealing with complaints
- Putting together an effective work team
- Crew performance
- Job site meetings



Part III: How to work with a group

Managing your crew

1. Crew members can make your job more or less difficult. Selecting the right persons plays the first role in your success as a crew supervisor.
2. You need to staff your work group with skilled workers, but after *finding* these skilled applicants, it is your responsibility to choose *the most skilled ones for a task*. You must make sure that the *job requirements* properly *match* their skills.
3. Once you have chosen, worked with, and know your group members, experience and outstanding performance records will help you select the workers who are ready to be promoted.

- First, determine what you are seeking. Second, find candidates and assess their qualifications. Third, choose the ones that match the most
- Avoid over-qualified candidates. Consider qualities relevant to the job
- When promoting, remember that you have understood that new activities are to be performed and perhaps, not only good past performance records will be necessary to make the decision to promote them

→ *Get to know candidates as much as possible before including them in your crew.*
Get to know people's skills and character during actual job performance.

Tip:

Stick to relevant qualifications related to the upcoming job

Part III: How to work with a group

Taking advantage of your crew members' skills

1. To get things done, you must make effective use of your crew's skills. You need to ensure that work is done efficiently.
2. Delegation is the key once you know your people's skills. Not every worker has the same abilities. In order to delegate responsibilities you have to consider the task, the worker's proficiency, the time available, and management interests.
3. Appropriate delegation depends upon how familiar the workers are with the job responsibilities. Your goal should always be full delegation which means that you will assign some of your responsibility to the crew members. This means they have to be fully capable of making decisions.

- Be specific about the levels of delegation.
- Give the group all the relevant information you have about the task
- Decide what work can be done only by you, work that can be delegated immediately and work that can be eventually delegated
- Willingness can be just as important as ability when performing a job or role

→ Do not perform somebody else's job, delegate effectively. Always have willing and able people in your crew.

Tip:

Keep in mind that delegation may be the most difficult task for you as a new supervisor

Part III: How to work with a group

Involving others in the decision making process

1. Making decisions is inherent to your new job. You must address two main issues in order to consistently meet the job requirements: Procedure to follow when making decisions and the extent to which others should be involved in the process.

2. You have the option to make decisions by yourself, involve others with you, or delegate the decisions to someone else.

3. You must involve others when you don't have all the information you need to make a good decision. Some situations require the group's involvement because a group working together can create more possibilities than individuals.

4. Give opportunities to those whose knowledge and experience meet your needs.

- Time is highly influencing when deciding whether or not to involve others. It might take longer for you to receive feedback from others when you have enough experience to make decisions by yourself.
- Always try to have more than one alternative prior to making a final decision.
- According to the situation, you can make the decision alone, in a meeting, or individually with each of the crew members.

→ Getting others involved gives the sense of importance. Be careful not to show that you do not know what is going on, rather involve them as part of decision making process.

Tips:

- Make your workers feel themselves as a part of the company's objectives, .
- Let them know their importance and influence in the company's goals.

Part III: How to work with a group

Dealing with complaints

1. As supervisor you have to be ready to receive complaints at any level. You may affect your worker's morale if you fail to be attentive and responsive. It is quite difficult to satisfy each member's complaints. The least you can do is to listen and provide help with the issue.

2. Keep in mind that your decisions have to be based on your company's policies. You must be unbiased during the discussions. Always take complaints seriously, even when they don't seem to be important to you.

3. Try to discuss and provide solutions as soon as possible. Putting people off will show lack of interest.

- Show concern with a fair treatment. If you are not able to solve the problem right away, let the workers know when they will have the answer.
- Take into account that your workers will sometimes take sides and omit part of the problem. Always listen to both sides of the conflict.
- Do not let your workers leave your office if you are not certain that the results were positive.

→ Do not be concerned about who is right or wrong. Act objectively with the case facts. Do not be afraid to apologize if at some point you were rude to your workers; that will build respect among your crew.

Tips:

Try to separate the group and deal with them individually

Part III: How to work with a group

Putting together an effective work team

1. You must build an effective and strong relationship between you and your work group. Your success depends upon the success of your group. Your function is to create a group of members with willingness and high capabilities to support you.
2. Look for favorable attitudes towards the goals to be accomplished. Motivate people to perform an effective job.
3. Build cohesive teams. The feeling of being accepted within the group boosts the sense of responsibility to get the job done according to expectations.
4. You are the most important part of your team. You have to project an open, supportive, and cooperative image. Also, show confidence in your team's capabilities.

- Provide encouraging feedback.
- You are the bridge between your subordinates and your bosses. Therefore, you have to speak on behalf of your group. They will expect protection and backing from you.
- Allow your members participation as much as necessary.
- Facilitate detailed schedules, materials, equipment, tools, and supplies at the right time and in place.
- If you feel lack of confidence in your group, try to promote more group involvement.

→ *Sponsor lunch breaks to promote group integrity. Off site activities are good opportunities to better integrate your group members.*

Tips:

Always maintain good relationship good your crew members, even when someone disagrees...

Part III: How to work with a group

Crew productivity

1. You can obtain positive crew productivity several ways: their outputs are more than their inputs, or if they have to reduce inputs, they get the same outputs, or if they increase inputs, the outcome represents a larger increase.
2. Now, as supervisor, you already know what affects your productivity. At this point, you have a group. After figuring out how much an individual performs, add them all up and determine how you can get an increased level of output.
3. Always look for ways to improve the productivity of your work group. There are three main components to look into to improve your crew productivity: the final product, the process, and the components of the product. You will be able to know opportunities for improvement. First look at your crew's outputs, then go backward through the activity processes and finally decide where, what, why, and how to modify the product components.

- Make sure that you make your group work smarter rather than harder. The *how* of things will help you find the most efficient ways for your group to use, so ask them *how* they think the final product could be better.
- Always provide components (materials, supplies, equipment, tools) in place and an hour earlier.

→ *The interest in doing a job may play the same or a more important role among your group members. Make sure that not only they are good at it, but also that they are happy and feel comfortable with it.*

Tips:

- provide components
- monitor and/or teach the process
- Evaluate final product, give feedback, and listen to your group members' suggestions

Part III: How to work with a group

Job site meetings

1. Failure to schedule meetings properly with your group might result in a waste of time. Meetings should be informal. You should use simple techniques to manage the meetings.

2. As a new supervisor, meeting can be a little frightening. However, they will strength your relationship with your subordinates, letting them know your expectations. You will also receive feedback from them.

3. Every meeting has a different purpose. Be selective with the people required to attend the meeting. Make sure that the topic of the meeting is top priority for each attendee.

4. During the first two months plan on meeting with your group workers once or twice a week. Later on, when you get to know each other better, a more balanced distribution of the meetings

- It is practical to first select your attendees, then prepare the agenda and finally arrange the meeting place.
- During the meeting organize activities in the least amount of time. State clearly the purpose of the meeting and the outcome that you are expecting at the end of the session. You are the leader, so keep attention focused on the topic until it is resolved. Collect feedback at the end and allow time for questions or additional comments.
- After the meeting, provide your crew workers with a list of action plans and/or to-do lists.

→ *Too many meetings is as bad as no meetings at all. Balance the frequency of your meetings as well as their duration. Do not use your workers' breaks for meetings.*

PART IV: KEY POINTS

- Weekly and daily schedules
- Getting the resources you need
- Assuring quality
- Enforcing safety
- Scheduling overtime
- Supervising friends
- Avoiding mistakes



Weekly and daily schedules

1. Effective schedules require not only good planning but good continuous updating effort. In the past, you used to be told when things would need to get done. Now, you are in charge of scheduling daily and weekly activities.

2. Your experience should give you some expertise in the job flow. Detailed and updated schedules will help you get the job done on time. During the process, activity durations may change as well as their sequence. Look for those activities affected by the changes you make to your schedule. Make certain to update it!

3. Always set your list of activities for each day of work, with the required labor and materials. At the end of each week, prepare your weekly summary to see what needs to be adjusted

- Do not ever get to the job without your daily activities. Rather, at the end of each day revise your list, check what has been completed during that day, and prepare for the next day. If changes occurred, make sure you adjust your upcoming activities.
- Maintain and document your job diary. Document as much as you see happen on the job site, such use of materials, individual and group performances, suppliers, equipment maintenance, subcontractors, and any information related to your responsibilities.

→ Remember that if you update your schedules in a daily basis, weekly schedules will not contain as many conflicts at the end of the week. Your workers need to constantly hear about progress in a daily and weekly basis.*

Tip:

Be prepared for things before they happen

* Next page provides a Weekly Schedule Form

WEEKLY SCHEDULE

Week of: _____

Task: _____

Start Date: _____

Finish Date _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Pending	Monday	Resources
M O R N I N G								Materials Supplies Equipment Tools Crew
LUNCH BREAK								
A F T E R N O O N								Material Supplies Equipment Tools Crew
Planned Actual								SUMMARY
O V E R E								

Project Location: _____
Crew members: _____

Project Name: _____
Supervisor: _____

Getting the resources you need

1. At this point, you have the opportunity to ask for what you consider necessary to get activities done properly, on time, under budget, and with the best quality.
2. Analyze the actual job conditions, thus determining what is needed for now on. Ask your subordinates if there have been any problems concerning resources availability, equipment breakdowns, or any relevant information that may help you get a better concept of your new challenges and needs.
3. Work with your immediate boss once you know what is needed for the future. Include your subordinates' suggestions. Tell your boss your view point. Suggest opportunities for improvement if better resource conditions are provided.
4. Making a proper inventory now will save you from headaches

- Take into account that when starting out as a supervisor, it will be more difficult to identify additional resources. Make sure that you know of all available resources, even those that may not be on your job site.
- Document everything in writing from the first day. Inventories will help you keep track of the resources available and also the unavailable ones.
- Make sure your workers have and are using the appropriate tools

→ *Keep track of who is using what and when and how they used it.*

Always have handy all tools for the job.

Tips:

- Insist in supplying the resources you need
- Keep inventories as small as possible
- Keep appropriate tools

Assuring quality

1. One of your responsibilities as a worker/laborer is to perform quality work. But, now as a new supervisor you will have to look for quality from a new view point. You must assure the quality of both your work plus that of your team.
2. Encourage your people to think big. Enforce the real concept of achieving quality from start-to-end by creating a free-error attitude within your workers.
3. Make it clear that quality must be considered with a long-term perspective. Quality won't only benefit an individual or a project, but it benefits the entire group, you, and the company.
4. You must conduct inspections. Make sure that standards are understood the first day.

- Good quality is obtained from constantly and appropriately monitoring a process. More than having a group of hard workers, you are now in charge of creating an environment that encourages workers to keep errors minimized
- There will always be more beyond an achieved goal. Keep on looking for opportunities for improvement
- Avoid re-work as much as possible

→ Tell your workers how much they influence the company's results and encourage them to think of quality as a benefit for themselves.

Tips:

- Assure quality by making your people aware of the benefits obtained when quality is in them.
- Avoid

Enforcing safety

1. Make this process take place in your daily and weekly activity lists. The process consists of creating and implementing a safe environment for any person in or near the jobsite.
2. Creating safety programs is the first step. As a new supervisor, you need to be aware of all the details related to your jobsite. Past incidents, risks, accidents may give you additional awareness and help you prepare during the transition.
3. Once you have become familiar with the jobsite, alert your subordinates, and especially yourself, of facts and possible risks.
4. Make training the key tool to ensuring safety. Pay closer attention if you have new crew members.

- Be concerned not only about what and how your workers do at work, but also about what and why they do not do.
- If you are taking over someone else's position, then DO NOT start getting prepared from the first day. Look back and ask more about jobsite precedents.
- Construction projects face several types of risks. Remember that you may end up being responsible for persons or actions you did not think could be affected by your actions.

→ *Talk with your crew about accidents in the past, increasing trends, and if necessary, bring up the fact that your culture is the most affected one in the construction sector.*

Tips:

When deciding about what goes first among quality, safety, or productivity always put ***SAFETY FIRST***

Scheduling overtime

1. You will find the two types of people to choose from: those who want all the overtime they can for financial purposes, and on the other hand, those will not do anything beyond their regular work hours.
2. Try to keep your labor force balanced. Avoid scheduling workers who do not want to be at work if possible. The difficult part herein is to schedule people to work overtime. Be fair and understanding.
3. If you see workers taking advantage of the fact that you as a new supervisor will not notice whether or not they are loafing during the day so they can work overtime, then transmit the message that you are considering eliminating overtime.
4. Give special consideration to employees with kids

- Keep in mind that even those workers initially willing to get some overtime will reach a peak in their productivity after a certain point. Their overtime productivity will begin to decrease; at that point, overtime is not longer a good solution to your setbacks
- Let your workers know well in advance that they have been scheduled to work overtime
- Consider conflicts such as family issues and time conflicts

→ *A good way to avoid overtime is to avoid promising completion dates that cannot be met.
A detailed and realistic schedule avoids unnecessary overtime.*

Tips:

- Work overtime when absolutely necessary
- Consider other alternatives to earn more money

Supervising friends

1. It is quite normal that you will have to deal with former co-workers you used to work with. It is expected that both you and your “friends” will adjust quickly and properly.

2. During this transitory period, avoid showing any kind of favoritism. There may be some similar friendship aspects influencing you and your workers such as practicing the same sports and family activities.

3. Keep a workplace relationship and avoid that from extending to other interests. Also emphasize that you, do not want your promotion to harm your friendship.

4. In situations when a friend gets difficult to supervise because you became his/her boss, you will have to consider ending your common interests or transferring to another crew

- Remember that it is you who was promoted to supervisor and therefore it is you who make the difference as to how to manage the transition.
- Downplay your friendship, especially during your initial transition time. However, do not try to hide the friendship

→ *Setting your friendship limits during your transition is the key to supervising your former co-workers.
Do not let your friendship affect the performance of your work.*

Tips:

- Separate work from friendship
- Set your friendship limits
- Downplay existing friendship with former co-workers

Avoiding mistakes

1. As a part of your preparation, you should also be aware of common mistakes that frequently occur to new supervisors:

- Forget to set effective examples for subordinates to follow
- Misunderstand the concept of friendship
- End up being unfair when trying to be firm
- Make promises that eventually cannot be kept
- Lose credibility from workers by making a decision one way today and another way tomorrow
- Show false favoritism when trying to give recognition for outstanding performance
- Fall in the habit of making excuses
- Take the blame for someone else's mistakes
- Avoid providing assistance to workers by referring them elsewhere
- Feel tested when workers ask questions
- Overload workers
- Overlook quality to keep the job on schedule and under budget
- Overreact when workers make mistakes
- Assume they know something when in fact they are uncertain

Tips:

- Always remember you are new in your job
- If you do not know something, do not say: "I don't know," and find out who does

→ When something goes wrong, accept the mistake and do not try to make excuses.

EVALUATION

	YES	NO
1. Are you willing to use a portion of your personal time in training your crew?	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you think that the more capable a worker is, the more work should be delegated to him?	<input type="checkbox"/>	<input type="checkbox"/>
3. Do you think that raising your voice could be an effective way of showing authority?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are you willing to take someone else's responsibilities?	<input type="checkbox"/>	<input type="checkbox"/>
5. Do you feel technically prepared to perform the tasks that will be assigned to your crew members?	<input type="checkbox"/>	<input type="checkbox"/>
6. Do you think that your workers will respect you if you constantly look over their shoulders to make sure their work is being done right?	<input type="checkbox"/>	<input type="checkbox"/>
7. Would helping your crew make you reach your goals more effectively?	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you give special consideration to those workers with family problems?	<input type="checkbox"/>	<input type="checkbox"/>
9. When making decisions, do you take your workers' ideas into account?	<input type="checkbox"/>	<input type="checkbox"/>
10. Do you find it necessary to let your workers know more about the company's goals?	<input type="checkbox"/>	<input type="checkbox"/>



EVALUATION

	YES	NO
11. Do you keep your records in writing?	<input type="checkbox"/>	<input type="checkbox"/>
12. Do you give special treatment to those former co-workers you used to work with?	<input type="checkbox"/>	<input type="checkbox"/>
13. Are you willing to accept criticism from your boss, fellow supervisors, and even from your crew workers?	<input type="checkbox"/>	<input type="checkbox"/>
14. Do you think that admitting a mistake will affect your authority as a supervisor?	<input type="checkbox"/>	<input type="checkbox"/>
15. Are you willing to continue taking training courses to improve your supervisory skills?	<input type="checkbox"/>	<input type="checkbox"/>
16. Do you think that you can make your crew's work better by becoming a supervisor?	<input type="checkbox"/>	<input type="checkbox"/>
17. Do you use external methods to keep your stress and anxiety under control?	<input type="checkbox"/>	<input type="checkbox"/>
18. Do you maintain a positive attitude at all times, even in difficult situations?	<input type="checkbox"/>	<input type="checkbox"/>
19. Are you willing to change your habits and personal relationships prior to becoming a supervisor?	<input type="checkbox"/>	<input type="checkbox"/>
20. Do you instruct your workers the same way you would like to be instructed?	<input type="checkbox"/>	<input type="checkbox"/>
21. Do you think that teaching your workers will affect	<input type="checkbox"/>	<input type="checkbox"/>



EVALUATION

- | | YES | NO |
|---|--------------------------|--------------------------|
| 22. Do you think that a good feedback technique is to make your workers show you what you just taught them? | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Would you delegate work to your workers which you would not be willing to do yourself? | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. Do you feel responsible for helping your workers' personal and work problems? | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. Do you care about your workers feeling comfortable with the work they are asked to perform? | <input type="checkbox"/> | <input type="checkbox"/> |
| 26. Do you promote confidence among your crew members? | <input type="checkbox"/> | <input type="checkbox"/> |



EVALUATION

Circle one answer:

27. What is more important to you?
- a. finishing the job on time
 - b. finishing the job under budget
28. Which of the following do you consider the most important?
- a. productivity
 - b. quality
 - c. safety
29. In the case of a potential problem, would you rather spend some time...
- a. ...planning how to avoid the problem?
 - b. ...solving it when it occurs?
30. If you have a problem, do you try to...
- a. solve it immediately?
 - b. understand why it occurred?
31. During a day of work,
- a. do you rely on your memory to keep track of your job?
 - b. do you document everything in writing?
32. When solving a problem,
- a. do you come up with innovative solutions?
 - b. do you ask for advice to find standard procedures?



EVALUATION

Circle one answer:

33. Would you delegate overtime to workers who:

- a. are willing and need extra money
- b. are more capable of doing the job faster

34. What satisfies you the most:

- a. only getting the job done
- b. finding more opportunities for improvement

35. Do you correct a worker's performance...

- a. individually
- b. in front of the rest of the group

36. If one of your workers is not doing the job correctly,

- a. do you delegate the task to someone else
- b. do you correct the worker and teach him/her how to do it correctly

37. When a task is accomplished successfully,

- a. do you let your workers know that they did a good job
- b. do you assume that a good job is always expected and do not provide any positive feedback

38. When do you think is more effective to establish your standards and leadership position?

- a. From the very first day of work



EVALUATION

39. Name three situations in which a worker's contract should be terminated.

40. How long do you think it will take you to be promoted to a higher position?

41. How often do you think that group meetings should be held?

42. What is the best time and place for you to provide feedback to your workers?

43. Assign number 1 through 6 according to the degree of importance you would give to the following aspects. (*1 is the most important, 6 is the least important*)

- Communication
- Leadership
- Motivation
- Recognition
- Feedback
- Record keeping



5. CONCLUSIONS AND RECOMMENDATIONS

Meeting one of the objectives of Phase I of the Hispanic Workforce Research Project, this thesis provides an effective tool to construction companies for training Hispanic craft workers of the U.S. construction industry whose skills meet the requirements to be promoted to a supervisory position such as crew leader, foreman, or supervisor. The Hispanic population has become the nation's largest minority group in the U.S. and is expected to grow at a rate of 10 million every 10 years. Hispanics represent many nationalities, including Mexicans, Cubans, and Puerto Ricans, as well as 15 Central and South American countries. In addition, the U.S. Census Bureau has projected that by 2050 the U.S. Hispanic population will make up 25 percent of the total population.

The research methodology involved the collection of data from Hispanic construction workers in Iowa. Surveys were conducted in a one-to-one type of survey between the research team members and the Hispanic workers. Survey findings led to the conclusion that company's training and development programs for Hispanics were not effectively provided, or as in most of the cases, not provided at all. As a result, a training course titled *Stepping up to supervisor for Hispanic construction craft workers* was developed.

In order for this training course to be effective, special emphasis must be made to address cultural differences between the American and Hispanic populations as well as poor communication. The lack of communication flow between Americans and Hispanics in the workplace has been proven to be the most common cause of accidents in the construction sector. This communication is less than adequate, and therefore Hispanics are exposed to higher risks.

According to statistics, the workplace continues to diversify, and therefore construction companies cannot ignore these trends and continue their businesses as usual. On the contrary, this large foreign labor force has to be trained not only to be productive but to be safe. Demographic changes must be taken into account when designing training programs, particularly those changes experienced in the U.S. construction labor force. Furthermore, demographics can help employers better understand the beneficial differences that this diverse workforce can make when their work is recognized and included in the company's corporate objectives.

The goal of the *Stepping Up To Supervisor for Hispanic Construction Craft Workers* course was to organize a list of supervisory-related topics deemed important by the needs assessment. Specific objectives were focused on how to prepare Hispanics for the transition from worker to supervisor. Furthermore, culturally-related recommendations on how to manage a supervisory position within an American construction company were included in each topic. A systematic approach was used in developing the course: the *structure* and the *process*. For the structural component, it is strongly recommended to first increase awareness of safety issues, especially with Hispanics coming from other countries where safety culture is significantly different. New skills must also be built so that Hispanic supervisors can interact more effectively with both their bosses and their subordinates. Cultural differences should be considered a benefit rather than an obstacle. Finally the new supervisor is urged to put in practice an action plan to become a successful leader.

The process relates to the sequence that the newly promoted supervisor should follow prior to starting to supervise and delegate work to others. In other words, a Hispanic has to handle himself and then handle his crew or his boss or other supervisors on the jobsite.

Leadership appears to be as one of the most important characteristics of a successful supervisor. Several recommendations on how to manage that authority position were specifically based on the Hispanic culture.

Once the new supervisor has realized the challenge and evaluated himself better, he is now ready to interact with individuals, and, of course, with his group members. Important recommendations on how to handle difficult and unexpected situations must be applied carefully. Hispanic supervisors must understand clearly how to manage friendships with former co-workers. The transitory stage may not allow the new supervisor to make the transition, therefore prior preparation as to how to supervise friends must start from the very beginning.

Some other factors such as motivation, productivity improvement, decision making, and problem solving among others, were also culturally studied. In training, concepts can be achieved through appropriate materials, but if trainees are also provided with experience and practical cases, then the results of such a program will be complete and effectively achieved as well.

When delivering this training course, developers as well as trainers must keep in mind that Hispanics will get more out of the training if they are actively involved, that is, a combination of this course contents and real-life practices should go together to obtain satisfactory results. It is also recommended that this course be delivered by people who possess multicultural experience in the construction sector, and more specifically within the Hispanic and American cultures.

Finally, further research on American construction supervisors will be needed. Phase II of the Hispanic Workforce Research Project will include the supplementary data to be

obtained from American supervisors who wish and find themselves in the need for promoting those Hispanic employees whose skills meet their expectations for higher positions such as a supervisor. The surveys conducted up to this point showed the information necessary to select the focus of a training course for Hispanic craft workers.

Hence, the opinion from American supervisors has not yet been verified and some other factors that would complement the whole process. By using and combining both phases I and II, future correlations may be accurately established and eventually utilized for the process of delivering the proposed training course contained in Chapter Four: *Stepping Up To Supervisor for Hispanic craft workers*. This is one of the objectives of Phase II of the Hispanic Workforce research project.

APPENDIX**Questionnaire for Hispanic Construction Workers**

Conducted by: Iowa State University

Date: _____

Department of Civil, Construction, and Environmental Engineering

Anonymity: Your answers to the following questions will be completely anonymous and the results will be held strictly confidential and will be used for statistical purposes only and not linked to the respondent.

General Objective

The general objective of this survey is to bridge the gap between American supervisors and Hispanic construction workers, by defining the fundamental needs created by blending the cultures in the workplace. The assessment of the needs will help develop suitable and effective ESL (English as a Second Language) and other training courses that will encourage Hispanic construction workers to be active and productively engaged participants in the refinement and accomplishment of American construction companies' goals under a safe environment.

Note: This questionnaire will take 15-20- minutes to complete.

Please circle one response for each question

Questions 1 thru 6 are related to English language training?

1. a. Have you ever taken a course to help you learn English?

1 = Yes 2 = No

b. If YES, how many total hours of training have you had? _____

c. If NO, would you like to take one?

1 = Yes 2 = No

(If you have never taken a class in English, SKIP TO QUESTION.7)

2. Was this English course related to construction?

1 = Yes 2 = No

3. How would you rate the following aspects of your English course?

	<u>Very poor</u>							<u>Very Good</u>
a. Contents of use on the Job site	1	2	3	4	5	6	7	
b. Contents of use in Everyday life	1	2	3	4	5	6	7	
c. Instructor	1	2	3	4	5	6	7	
4. How would you rate the degree of difficulty?	<u>Very easy</u>							<u>Very difficult</u>
	1	2	3	4	5	6	7	
5. How would you rate the length of the course?	<u>Very Short</u>							<u>Very Long</u>
	1	2	3	4	5	6	7	
6. How well did your English courses met your needs or expectations?	<u>Not at All</u>							<u>Completely</u>
	1	2	3	4	5	6	7	

Questions 7 thru 14 ask you about future technical training needs.

7. Would you be interested in taking a technical training course related to your job?

1 = Yes 2 = No → IF NO, SKIP TO QUESTION.15

8. If YES, what would you like to learn?

9. Are your learning interests related to your occupation? (Trade)

Yes No

10. In future technical training courses, what degree of importance would you give to the following aspects:

	<u>Not</u>					<u>Very</u>			
	<u>Important</u>					<u>Important</u>			
a. On-the-job vocabulary?	1	2	3	4	5	6	7	N/A	
b. Equipment operation?	1	2	3	4	5	6	7	N/A	
c. Construction safety?	1	2	3	4	5	6	7	N/A	
d. Plan Reading?	1	2	3	4	5	6	7	N/A	
e. Tools?	1	2	3	4	5	6	7	N/A	
f. Measurements?	1	2	3	4	5	6	7	N/A	
g. Other: _____	1	2	3	4	5	6	7	N/A	

11. Would you like to learn to operate heavy equipment?

1 = Yes 2 = No → IF NO, SKIP TO QUESTION 13

12. Which of the following would you prefer to learn to operate? (circle all you want)

1 = Forklift 3 = Motorgrader 5 = Dump truck

2 = Backhoe 4 = Bulldozer 6 = Other _____

13. In which language would you prefer to take a technical course?

1 = English 2 = Spanish 3 = English and Spanish combined

14. Where would you like these courses to take place?

1 = Job site 2 = Classroom 3 = Both 4 = Either one

Questions 15 thru 21 relate to your overall job site conditions

15. Is your supervisor?

1 = Non-Hispanic 2 = Hispanic 3 = Other

16. If your supervisor is Non-Hispanic, how familiar do you believe he/she is about Hispanics with regard the following:

	<u>Very Unfamiliar</u>					<u>Very Familiar</u>	
	1	2	3	4	5	6	7
a. Culture differences	1	2	3	4	5	6	7
b. Manners	1	2	3	4	5	6	7
c. Work Ethic	1	2	3	4	5	6	7
d. Other: _____	1	2	3	4	5	6	7

17. How satisfied are you with each of the following at your current job?

	<u>Very Dissatisfied</u>					<u>Very Satisfied</u>	
	1	2	3	4	5	6	7
a. your training opportunities to improve your skills or learn new skills	1	2	3	4	5	6	7
b. the safety conditions on the job site	1	2	3	4	5	6	7
c. the type of tasks you are asked to do	1	2	3	4	5	6	7
d. your ability to communicate in English	1	2	3	4	5	6	7

18. How often do you need a translator to communicate with your supervisor?

1 = Never 3 = Sometimes 5 = Always
2 = Seldom 4 = Often

19. How important would it be to you to ...

	<u>Not</u> <u>Important</u>					<u>Very</u> <u>Important</u>	
	1	2	3	4	5	6	7
a. Improve your communication with your supervisor?	1	2	3	4	5	6	7
b. Improve your communication with your co-workers?	1	2	3	4	5	6	7
c. Receive training emphasizing only in construction?	1	2	3	4	5	6	7
d. Have advancement opportunities?	1	2	3	4	5	6	7

20. Have you had any construction related accidents?

1 = Yes

2 = No

If YES, please describe it?

21. What are the most common types of accidents you have seen or undergone in construction, if any?

Question 22 thru 34 relate to your background and some personal information

22. How long have you been living in the U.S.?

___ years ___ months

23. How much experience in construction did you have prior to coming to the U.S.?

___ years ___ months Trade: _____
 ___ years ___ months Trade: _____

24. How long have you been involved in construction in the U.S. and in what trade?

___ years ___ months Trade: _____
 ___ years ___ months Trade: _____

25. How long have you been employed by the company you are currently working for?

___ years ___ months

26. How many other construction companies have you worked for in the U.S.? ____

27. How long have you worked at jobs not related to construction?

___ years ___ months

28. How old are you? _____ years old

29. What is the highest level of education you have completed?

1 = Elementary school

4 = High school

2 = Middle school

5 = College

3 = Technical school

30. Do you stay in Iowa after the construction season is over?

1 = Never

2 = Sometimes

3 = Always

31. Do you plan to stay in the U. S.?

1 = Yes

2 = No

3 = Undecided

Why? _____

32. After having arrived in the U.S. and worked in construction, what are your main goals and expectations for the future?

33. What do you consider to be your main problem on the job site?

34. What is your country of birth? _____ State: _____

35. Would you like to take a course to be promoted to supervisor?

1 = Yes

2 = No

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