

CULTURE AS A POSSIBLE FACTOR AFFECTING THE PRODUCTIVITY OF HISPANIC EMPLOYEES WORKING UNDER THE SUPERVISION OF NON-HISPANIC AMERICAN MANAGERS

By

Enrique Martinez-Calimano
Associate Professor
Metropolitan Campus
Inter American University of Puerto Rico

Abstract

People from different cultures may perceive the same situation in different ways. Productivity may increase in a multicultural work environment as each worker brings different abilities and skills that can be applied to solve problems. However those same differences have the potential to cause conflict, if workers are unable to work as a team, or if they refuse to work to their full capacity. This study was conducted in an effort to contribute data that can help Americans and Puerto Ricans better understand each other, thus making it possible for them to live together in productive relationships. This research focused on errors caused by differences in language and culture in the workplace and was conducted in local and multinational companies.

Data regarding possible cultural productivity problems, resulting from managers and employees differing in their respective cultures, and/or conveying instructions in English to Spanish-speaking employees, was collected with a survey constructed especially for this study.

Introduction

This study focused on Puerto Ricans working for American companies in Puerto Rico and in the United States under the supervision of Non-Hispanic American managers. Research targeting Puerto Ricans is limited. Therefore, information regarding other Latino groups, especially Mexicans, was presented. Each Latino group has distinct characteristics. They also have characteristics that are common to all of them. For example, the vast majority of Latinos speak Spanish and are Catholic.

Puerto Ricans share many values, visions, views, and political processes that are similar to those of Americans. Nevertheless, Puerto Ricans are Latinos and their views and values are often different from those of Americans from other ethnic backgrounds. People from different cultures may perceive the same situation in different ways. Culture permeates all aspects of one's personal life and is the reference point from which situations are analyzed and judged. A person from one culture may have the best intentions when expressing him/herself through words or actions. Yet, a person from another culture may perceive these expressions as something totally different, and possibly negative. These differences in tastes, values and perceptions have the potential of causing conflict in the workplace. This can result in a decrease in productivity because workers are not able to work as a team or because they refuse to work to their full capacity.

Additional problems in the workplace may occur when workers do not speak English as a second language. This situation covers a wide range of possibilities, from

those who are unable to communicate in the most basic terms in English, to those who are fully bilingual. The latter may use the English language in the workplace, while speaking their native language at home.

Failure to master the host language causes problems in the workplace. Words in some foreign languages lack appropriate translations into English. In addition, idiomatic expressions cannot be translated verbatim. If the non-native speaker of English were to translate their meanings, serious communication breakdowns and misunderstandings could occur, causing productivity to suffer.

Review of Literature

Societies are composed of institutions and organizations that reflect the dominant values of their culture (Lee, 1996). Cultural behavior, whether instilled by organizations, individuals, formal policies, laws and rules, or informal norms and practices, is derived from values, core beliefs, and attitudes (Nine-Curt, 1993). These behaviors, learned through imitation and the psychological programming in the home and social surroundings, resulting in feelings of belonging and identity. Any disruption in the system may cause an onset of culture shock, which manifests itself in discomfort, feelings of lack of identity, and illness (Nine-Curt, 1983).

In the past, managers believed that a good manager in the United States would also be a good manager in other countries, and that effective American management practices would be effective anywhere. However, managerial attitudes, values, behavior, and efficacy differ across national cultures. Organizations and management reflect the social values of the society in which they are created. To achieve good performance, businesses must adapt their practices to local cultural conditions (Newman and Nollen, 1996)

because organizations and management reflect the values of the society in which they are created.

A study by Bigoness and Blakely (1996) revealed that values are becoming increasingly homogeneous across cultures. Yet, there are continuing differences regarding national values in different countries' societal and managerial practices. Managerial practices are effective when they are in harmony with the local culture. This fact has been revealed in a study by Newman and Nollen (1996). When managers adjusted their practices to the cultural values of the host country, they had higher returns on assets and sales.

Many companies operating in countries of Latin ancestry, such as Puerto Rico, tend to be more centralized and have less employee participation in decision-making. Managers who encourage participation in these countries are likely to be seen as weak and incompetent (Newman and Nollen, 1996).

Procedures that support preventative and remedial approaches which help reveal problems without losing face may help reduce conflicts and errors. Labeling projects as experiments can persuade employees and managers to speak freely about their problems. Expectations should be clearly communicated (Stephens and Greer, 1995). Mexican cultural values, similar to those of the Puerto Ricans, reveal team spirit, a need of affiliation, a collectivistic culture, and an allegiance to employees or supervisors, which facilitate and enhance teamwork. Rewards should be tailored to cultural and economic circumstances. Employee initiative in the decision process should be cultivated and supported.

Since messages are conveyed in different ways by different cultures, what may accomplish the desired result in one culture might not necessarily work in another. The fact that two individuals speak the same language does not necessarily mean that they

understand each other. Puerto Ricans have difficulty in communicating well in the American world. They communicate a great deal of information non-verbally through body language, gestures, eye contact, and physical distance. Typical Puerto Rican gestures have Southern Spanish and African origins and are present among all social classes, while in the United States there is a diversity of gestures operant in different ethnic groups. Puerto Ricans can tolerate high levels of noise, while silence and privacy are very important to the American (Nine-Curt, 1983).

When an American speaks, he/she conveys an intended message verbally. Puerto Ricans usually convey as much as sixty five percent of the intended message through body language. There is meaning in what is not said. Thus, the listener must “read between the lines.” Gazing is a sensitive communication element. Americans look straight into each other’s eyes when talking; Puerto Ricans focus on the face, not on the eyes. When talking,

Anglos are “tunnel” gazing, while Puerto Ricans swing their heads away and sway their bodies from side to side in an “oscillating fan” type of gazing. Yet, the eye-shifting Puerto Rican may seem inattentive or uninterested to an Anglo. The unsmiling faces of the immobile Americans consider themselves as being attentive and very courteous. Conversely, they seem angry and judgmental from a Puerto Rican point of view, making them feel uncomfortable. A great deal of discomfort may be alleviated by simply being aware of these cultural differences (Nine-Curt, 1983).

Physical distance also seems to be in complete reversal between the two cultures. In Puerto Rico, when people of the same sex interact with each other, proximity is much less than among Americans. However, when people of the opposite sex interact with each

other in Puerto Rico, proximity is greater than in the U.S. In Puerto Rico, spatial proximity becomes greater, while in the U.S. it lessens (Nine-Curt, 1983).

Similar to the quickly disappearing, traditional patriarchal Puerto Rican family, Mexicans also have the cultural tradition of being patriarchal. As a result, females may find it difficult to respond to other females in the workplace. Likewise, male employees are likely to be highly uncomfortable by having to respond to a female boss in Mexico. Focus should be placed on merit, rather than on age or seniority.

A study by Pelled and Xin (1997) focused on age and gender similarities among managers and subordinates. A sample of one hundred and thirty-five Mexican workers and managers were selected for this study. More worker attachment was observed when the manager was older than the employee. A greater age difference seemed to work best. Worker attachment was stronger when the supervisor was a male. This difference was observed in both male and female workers.

Traditionally, American corporations have tried to export management techniques that function in the United States to their operations abroad. Foreign managers and workers have been trained to function similar to American managers, without considering the difference in cultural traits. Hansen and Kahnweiler (1997) found that executives felt the need to reproduce their system of values and perceptions. However, each corporation is uniquely framed by many cultural factors. These cultural factors influence the difference in values, meanings, and expectations. In addition, Bigones and Blakely (1996) concluded that there are continuing differences in the national values of different countries. Moreover, corporations tend to believe that these values are homogeneous and, therefore, managers and managing practices are readily transferable.

Corporations have come to realize that they need to adapt their management

techniques to fit different foreign cultural environments. However, Shinn, Wong, Simko and Ortiz-Torres (1998) found that many programs, implemented by corporations, are aimed at trying to hire employees with differing cultural characteristics into the main stream. That is, they are trying to eliminate, not address, their cultural differences. Managers believe that their operating procedure is superior to that of their foreign employees. Some critics see this as a form of covert discrimination. To fully exploit the potential of a diverse workforce, segregation (Gillespie and Teegen, 1995) and discrimination must be avoided.

When one compares American and Mexican managers in terms of education and gender, differences in organizational commitment are evident. American managers can enhance employee commitment to the firm by implementing factors that contribute to job satisfaction such as type of work, pay increases, promotion possibilities and type of supervision (Harrison and Hubbard, 1988).

Teagarden, Butler and Von Glinow (1992) found that strategic recruiting practices in obtaining qualified labor reduces employee turnover. The immediate supervisor is largely responsible for the “maquila” a Mexican Corporation which operates under a program approved by the Mexican Secretariat of Commerce and Industrial

Development (Secretaría de Economía, Gobierno de Mexico, 2005). The *Maquila* decree requires that produced products must be exported from Mexico (Cohen, 1994). Employees perform their assigned work because their employer provides the expected rewards. This is viewed as fulfilling the role of the “patrón” (boss) who takes care of his employees and is sensitive to their problems. Performance is greater in those factories where rewards are based on performance and quality of production. However, the

statistical measures are not revealed in the study. Therefore, no judgment could be made of their appropriateness.

In Latin cultures, in general, and in Puerto Rico in particular, the familial group is very important. In some Latin American countries, Mexico included, peasants simply leave the workplace during holidays, in order to visit their relatives in other parts of the country. They also attend weddings and funeral of friends, or extended, second or third generation relatives. A manager may be faced with a grave problem in absenteeism that can affect the general performance in the workplace.

In Puerto Rico, the primary agent of socialization is the family unit which exerts a significant influence on an individual's value system and role expectation. These personality features form the basis for cooperation and interaction with others (Nine-Curt, 1983).

Furthermore, the change in demographics has increased diversity in consumer-based companies and their understanding. By having a diverse workforce, that is, employees from different cultures, a company should be able to produce and market its products more efficiently. To be fully competitive and utilize all employees to the fullest, management should understand diversity. "By understanding diversity people can work better together and respect each other" (Darcy, 1995, p.36).

Moreover, "cultural relations are important, because when people are respected and comfortable, they're empowered, and when they're empowered, they give of themselves more freely. And when that happens, productivity increases" (Darcy, p.36). In the study, "You Say Tomato," Khosla (2001) suggested that the lack of cultural sensitivity of a number of American managers may negatively affect their ability to form

international partnerships. By being culturally insensitive, these managers may seem intrusive and manipulative when they are conducting business with foreigners. He suggested that a lack of cultural sensitivity among some United States business executives can be detrimental to the formation of international business partnerships.

If culture is important, knowing the local language is an invaluable asset. In global operations, American business people, who are monolingual, are at a disadvantage. Lack of knowledge of the host language is a recurring problem for American companies doing business abroad. While English can be spoken in a business environment, the local language of the country is probably used for other everyday situations. All things being equal, a foreign company is tempted to give its business to a representative who can speak in that country's native language. Language training for personnel who will work abroad is very important for global business success (Dolainski, 1997).

Since much is lost in a transaction, American managers, sent to do business abroad, need cultural sensitivity as well as language training. A person is at an advantage if he/she knows the local language and the cultural implications of what is being said. Words have different meanings in different languages. Gestures, gazes, spatial distance and specific voice pitch have different connotations in different cultures. Literal translations of words can convey an unintended meaning. An embarrassing situation can result, which may ruin an otherwise productive business relationship.

Moreover, the cost of relocating a manager to a job assignment in another country is usually expensive, running as high as sixty thousand dollars (Dolainski, 1997). With this consideration in mind, corporations should carefully select employees for possible relocation overseas. Managers on a foreign assignment may feel frustrated because they may not be able to cope in a business environment where the rules of behavior and

conduct are unusually different from their own. A business executive who is unable to function in the new cultural environment will probably be removed from the foreign assignment. In managing across cultures, managers must understand that there are several cultural systems utilized in communicating. These systems have ample differences resulting in behavior that may be acceptable in one culture, and may be unacceptable in another.

Communication is more efficient when people share a common language, or coding scheme. They are able to interpret, understand and respond to information in a similar manner. In foreign cultures, managers are encouraged to provide more factual information and explanations concerning business transactions so they can avoid misinterpretations (Rao and Hashimoto, 1996).

Purpose of the Study

Second only to Mexican-Americans, Puerto Ricans are an important ethnic group in the United States of America. This study was conducted in an effort to contribute data that can help Americans and Puerto Ricans better understand each other, thus making their living together in peaceful productive relationships possible. Puerto Ricans are American citizens and, as a result, can travel freely from Puerto Rico to the mainland. This is an added advantage.

Hypotheses

Culture is the reference point from which an individual evaluates the world around him and also provides guidance on correct and preferable behavior. An employee from a

culture, other than that of management, uses a different set of rules to evaluate the work environment and the many situations that occur in the everyday interaction with coworkers and supervisors. Non-verbal communication as well as perceptions may cause misunderstandings that can result in loss of productivity because of increased errors or lost opportunities in the daily operations of a culturally diverse work environment.

These possibilities provided the formulation of the following hypotheses for the first problem area:

H₁₀: There is no relationship between cultural differences of employers and employees and the work related errors and misunderstandings.

A second problem area identified from the research questions is the lack of proficiency in the English language. Spanish-speaking Puerto Rican employees who do not understand the instructions given to them by their American supervisors may incur in errors that can result in lost productivity in the workplace. From this second problem area, the following hypothesis was presented:

H₂₀: There is no relationship between work-related instructions given in a foreign language and work related errors and misunderstandings.

A third problem area is gender. Is gender a factor in errors and misunderstandings in the culturally diverse workplace? Some researchers had suggested that women are more committed than men (Harrison, Hubbard, Calloway 1998). A study by Pelled and Xin (1997) observed that worker attachment is stronger when the supervisor is a male. This difference was observed in both male and female workers.

From the third area the following hypothesis was presented:

H₃₀: There is no relationship between gender and work-related errors and misunderstandings.

A fourth problem area is the age of the employee. Is age a factor in work-related errors and misunderstandings? A study by Pelled and Xin (1997) found observed that worker attachment is stronger when the manager was older than the employee. A greater age difference seemed to work best. From this fourth problem area, the following hypothesis was presented: _

H₄₀: There is no relationship between age and work-related errors and misunderstandings.

A fifth problem area is identified as the type of work performed by the employee. Is the type of work done a factor in work-related errors and misunderstandings in a culturally diverse workplace? American managers may enhance employee commitment to the firm by implementing factors that contributed to job satisfaction. One of these factors is the type of work done (Harrison and Hubbard, 1998). From this fifth problem area, the following hypothesis was presented:

H₅₀: There is no relationship between type of work and work-related errors and misunderstandings.

A sixth problem area is identified as the education level of the employee. Is the education level a factor in work-related errors and misunderstandings in a culturally diverse workplace? From this sixth problem area, the following hypothesis was presented:

H₆₀: There is no relationship between education level and work-related errors and misunderstandings.

Limitations and Delimitations

This study administered survey questionnaires to collect data from Puerto Rican and Hispanic employees working in a culturally diverse environment in Puerto Rico and in the United States. Survey questionnaires were sent to the companies that agreed to participate in the study. These companies asked their employees to participate in the study. The population sample was collected by availability. Because of the particular method selected for the sample size, certain limitations resulted as follows:

1. Sending survey questionnaires by mail and asking company employees to answer them involves the risk of low response. Employees had the choice of not completing them and utilize their work-time for other tasks.
2. The study only involved Puerto Rican and other Hispanic employees who worked in a culturally diverse environment. The results could not be generalized to workers from other cultures working in culturally diverse environments.
3. The study involved only employees working in culturally diverse environments. Therefore, the results may have been different for employees in homogeneous work-environments. The results in this study may be biased, since the sample was one based on availability.
4. The study included employees working in culturally diverse environments, in diverse businesses and geographical areas. Differences in corporate and local cultures could have affected the results of the study.
5. Data collected for the study depended on the perception of the employees who responded to the survey questionnaires. Respondents may have engaged in negation or rationalization and/or could be compelled to answer in ways that were

culturally accepted, and were not necessarily based on what happens in the day-by-day operations of the selected businesses.

6. Company culture and managerial practices may have affected the number of perceived work-related errors and employee responses.

Definitions

Words may mean different things to different people. Therefore, a list of terms with their specific intended meanings for this study is presented in this section:

1. Acculturation is a measure of how quickly and completely an immigrant changes his/her cultural values, and accepts and adopts the cultural values of mainstream United States. It is the process through which immigrant groups modify their cultural practices as a result of their contact with the host culture. (Barreto, Ellemers, Spears and Shahinper, 2003).
2. Benefit means a reduction in the number of work-related errors made by an employee.
3. Collectivism means societies in which people feel a strong attachment to their family and work groups. The group is expected to protect the individual and be extremely loyal to the latter (Hofstede, 1980).

4. Convenience sample refers to a sample in which the participants are selected based on their availability (Ravid, 1994).
5. Error in the workplace refers to problems in work operations and was defined as a misunderstanding of work instructions where an employee performs a task in a way that was not ordered or intended. It can also refer to instances where a task that was not ordered is indeed carried out resulting in a loss of productivity or an increase in cost.
6. Hispanic describes a person of Spanish descent who speaks Spanish as his/her first language.
7. Latino describes a person of Spanish descent who speaks Spanish as his/her first language.
8. A problem is defined as a misunderstanding of work instructions where an employee performs a task in a way that was not ordered or intended. It can also refer to instances where a task that was not ordered was indeed carried out. The latter resulted in lost of productivity or increased costs.
9. Spanish descent is a person whose family originated in a country originally colonized by Spain and who speaks Spanish as his/her first language. This definition also covers descendants from people born in the aforementioned up to their second generation.

Methodology

Research Design

The study included a self-report survey questionnaire based on closed-inquiry and quantitative questions. This study was limited to employees from multinational corporations located on the Commonwealth of Puerto Rico, the United States, and Latin America. It investigated the degree of relationship, if any, between the differences in

culture and the language used by employees and supervisors, and the number of work related errors committed by an employee.

The study is partially exploratory and partially descriptive focusing on the subjects' opinions. Qualitative studies are descriptive in nature. In fact the data obtained by the questionnaires helped understand the reality studied. The research used a multimethod approach to analyzing the gathered data.

The study employed descriptive statistics, correlation analyses, ANOVAS and significance tests for coefficient alpha (0.05), Brown-Forsythe robust tests of equality of the means, and Levene tests for homogeneity of variances.

Sample Selection

The subjects for the study worked in a culturally diverse environment and spoke English and/or Spanish. All subjects selected were at least 21 years of age. They were selected from companies willing to help in this study by allowing some of their employees to complete the survey questionnaire. They were offered a Spanish and an English version of the questions. Subjects were selected by availability or convenience rather than at random. They could answer either the Spanish or the English version of the survey.

Pilot Study

To assess the validity of the instrument five employees and five supervisors were asked to fill the survey. Their answers were used to determine the actual time needed to answer all questions and to evaluate if questions were clear and participating supervisors and employees understand what was asked. Based on the results obtained from the pilot study survey questions and instructions were modified.

Data for the final study was collected using a self-administered survey questionnaire. This instrument was pre-tested on 6 employees and 4 supervisors. These subjects were

selected on a convenience basis rather than at random, from people known to the researcher who worked in multinational companies operating in Puerto Rico. The results of this pre-test were considered in the research work yet will not be presented as part of the final results of the study. The pre-test determined if the questions are clear and easy to understand, and if the administration procedures are simple and efficient. The pre-test was also used to determine if employees understood the content of the questions and the procedures to complete the process. Responses were anonymous.

Demographic data was collected for the variables of sex, race, culture, diversity, age and educational level. Information regarding ethnic origin and placement, and whether or not subjects were employees or supervisors, was also gathered.

Respondents were asked:

1. How do they feel working in a culturally diverse environment?
2. How do they perceive their supervisors? Based on employee perceptions, do they see their supervisors committing errors or causing misunderstandings as a result of their cultural differences?
3. If they understand work instructions given to them in English and/or in Spanish by a supervisor whose first language is not that of the employee.

Validating the Instrument

To assess the validity of the instrument ten experts in management and human resources studied it to determine that the intended traits were actually measured. The term validity refers to how well an instrument measured what it was intended. Usually valid only for a specific situation, this survey was valid only for the group, function, and conditions it was

designed for. This survey was internally valid to the extent that it showed a cause effect relationship between the independent and dependent variables.

To increase the validity of the research, care was exerted in the selection of the subjects. This is important as those willing to participate may be unrepresentative of the rest of the population. These subjects may have been angry with other workers and / or management and may have decided not be a part of the work group. Answering the instrument was on a strictly voluntary basis. The contact person in the different test locations was told that it was expected that some workers would not want to participate and reprisals should not be taken with those who chose not to participate.

To lower the possibility of researcher's bias, people administering the survey were not be told what, if any, were the expected results. In addition, these individuals had nothing to do with the research other than administering the survey. Presumably, they did not press to obtain one specific answer over other possibilities. This precaution was necessary because by giving slightly different instructions to different subjects, the person administering the surveys may inadvertently (or not) influence the respondents answers.

Independent and Dependent Variables

The independent variables in this study are: age, academic degree, number of years working, professional classification, place of birth, Culture, language, and gender. The dependent variables selected were: instructions given, errors caused by the language used, and by cultural differences, errors witnessed that were caused by linguistic differences, and cultural differences, and errors caused by cultural differences.

Findings

Age and gender

Respondents were for the most part young female workers. Women represented 54.2% of the total sample. 98.5% of female respondents were between 21 and 40 years old, 43.3% fell in the 21 to 30 age group, 11.9% belonged to the 31 to 40 years of age category and 1.5% had more than 50 years of age.

Slightly younger than men, 45.7% of the women were classified in the age group of 21 to 30 years, 45.7% were in the 31 to 40 group, and 1.7% were more than 50 years of age.

Male workers constituted 45.8% of the sample in the 21-30 age range, 54.3% were in the range of 31 to 40 years.

Ethnic Classification

Workers were born in Latin American, the United States and Spain. Respondents born in Latin America were 66.2% (135 respondents) of the sample, while 33.3% (68 respondents) were born in the United States, and one person (0.5%) was born in Spain.

Parents of the respondents are for the most part born in Spanish speaking countries. Results show that 75% were born in Latin America, 24.0% in the United States, and 1% in Spain or Portugal .

In the study, 94.1% of those surveyed had grandparents born in Latin America, 4.4% in the United States and 1.5% in Spain or Portugal. Interestingly, 97.5% of the respondents, classified themselves as Hispanics, and only 2.5% claimed to be Anglo-Saxon.

Gender and Education

The survey divided education into three categories: high school education, college education, and graduate degrees. Results showed that 54.4% of the workers had only a high school degree, 39.2% had a bachelor's degree, and 6.4% had a graduate degree. The

study found differences in the level of education between men and women. There were more female respondents with only a high school education while more men had university degrees. Furthermore, 64.9 % of the women had only high school diplomas, 31.3 had bachelors' degrees and a 3.7% had a graduate degree. In the male group, 34.3% had only high school degrees, 54.3% had a bachelor's degree, and 11.4% graduate degrees.

Type of Work and Academic Degree

Respondents were classified as managers, qualified and non-qualified employees. Managers comprised 5.9% of the total respondents. Of these, 8.3% had only a high school diploma, 58.3% had a bachelors degree, and 33.3% a master or doctorate degree.

Qualified employees represented 64.7% of the sample. This classification of workers comprised 35.5% of all workers with a high school diploma. In this group, 54.5% of the workers had high a school diploma, 38.6% a bachelor's degree, and 6.8% a master or doctorate degree. Non-qualified employees were 29.4% the sample. In this classification, 63.3% of the workers had a high school diploma and 36.7% a bachelor's degree.

Language

Other information requested in the study included the linguistic characteristics of the respondents. Among the workers in the survey, 96.6% stated that Spanish was their first language, and 98.5%, indicated that they were fluent in Spanish.

Results indicate that 73.0% of the respondents have a poor knowledge of English. Interestingly 84.3% speak Spanish at home, 3.9% speak English, and 11.8% speak some other language.

Almost all respondents, 98.0% were full time employees. A significant number, 70.6% worked for multinational corporations while local companies employed 29.4%.

Most respondents, 83.8%, had done the same kind of job for the present or for a former employer for more than one yet less than three years. Another 8.3% had worked for less than a year, and only 3.9% had worked for more than three but less than five years.

Workers with more than one year at their present work position were 95.1% of the sample. These individuals had experience working with people from other cultures and/or speaking other languages for some time, before they answered the survey. This is a significant fact as these respondents may have had time to develop repertoires to deal with cultural and linguistic differences in their work environment.

Perception of Errors and Misunderstandings in the Workplace.

Survey answers indicate that 78.4% of respondents thought that their work environment was conflictive and only 21.6% thought it was not. In addition, 90.2% of workers thought that there were cultural differences in the workplace. Only 9.8% stated that there were none.

A significant number of workers, 77.9% witnessed errors in their work area caused by cultural differences, while 22.1% did not. Furthermore, 77.0% indicated that differences in the perception of the workers caused errors, and 86.3% stated that differences in the language used by supervisors and employees cause errors in the workplace.

Results also showed that 78.4% of the workers thought that the language used by their supervisors was difficult to understand, and 77.9% believed that their supervisors had vocabulary, values, and a vision of the world that were very different from their own.

The instrument collected information about errors caused by differences in perception and/or language. Evidence shows that 80.9% of the workers answered that

errors originated by differences in language occurred regularly. It also indicated that 61.3% caused errors originating from language differences. Of these, 4.9% some times made errors, while 15.7% caused them all the time.

Results also indicate that 4.9% of the workers had some times witnessed work-related errors caused by differences in perceptions, while 41.2% witnessed them all the time. According to the data collected 11.8% of the workers thought that errors in were caused by suppositions that were different from their own, 88.2% did not.

Summary

This research produced several interesting facts. It found no relationship between ethnic background and misinterpretation of work instructions received in a multicultural work-environment. In addition, the language in which work-related instructions were given was a factor that induced employees to perceive work-related errors and misunderstandings.

Furthermore, in the culturally diverse testing environment, there was no relationship between gender and work-related errors and misunderstandings. There was however a relationship between age and education level and errors in the workplace.

The study also revealed a relationship between the work done by supervisors and employees and the perception of work-related errors and misunderstandings. Based on the analysis, only two null hypotheses were accepted. Gender and ethnic origin were the only factors unrelated to errors and irregularities in the workplace.

Culture and language are elements that differentiate people. If workers are improperly trained to work with individuals from other cultures who speak other languages, workplace errors and misunderstandings affecting productivity may occur.

Null Hypothesis One

There was no significant relationship between the ethnic origin of workers and errors and work-related instruction.

The results showed that two of the items tested had a significance value larger than the preset 0.05. As a result, the null hypothesis is accepted because there were no significant differences between Latinos and the other ethnic groups present in the study.

Null Hypothesis Two

There was no relationship between language and work-related errors and misunderstandings.

An ANOVA for level of proficiency in the Spanish language showed significance levels lower than 0.05. However an ANOVA for the English language showed that the significance critical level was larger than the present value of 0.05. As a result, null hypothesis two was rejected.

Null hypothesis three

There was no relationship between gender and work-related errors and misunderstandings in a culturally diverse environment. The null hypothesis was accepted. The significance level of the ANOVA was larger than the 0.05 significance value.

Null hypothesis four

In a culturally diverse work environment, there was no relationship between age and work-related errors and misunderstandings. All critical values were lower than 0.05. Age influenced all items tested. As a result, the null hypothesis was rejected.

Null hypothesis five

In a culturally diverse work environment, there was no relationship between the work done by supervisors and employees and the perception of work-related errors and misunderstandings. The ANOVA conducted for present job classification showed that all the values for the significance level were above 0.05. As a result the hypothesis was rejected.

Null hypothesis six

In a culturally diverse work environment, there was no relationship between education level and work-related errors and misunderstandings. The study found that there were no statistically significant differences between academic degree and errors. As a result the hypothesis was rejected.

Conclusions

There was no relationship between the type of company and work-related errors and misunderstandings. Errors and misunderstandings caused by cultural and linguistic differences occurred in local as well as multinational companies. No statistically significant differences were found.

Proficiency in the Spanish language was not a factor causing errors and misunderstandings in a multicultural workplace. This was not a surprise as Spanish was a common denominator for all Hispanics surveyed in the study. Proficiency in English, on the other hand was an important factor contributing to misunderstandings in the workplace.

Demographic variables were a factor affecting the number of errors made and/or detected by a worker. There was a relationship between age and work related errors and misunderstandings. Apparently, all other factors fixed, younger less experienced workers

were more likely than not to commit errors as a result of misunderstandings while older employees were more likely to detect errors in the workplace. This may have been the result of experience or of the acquisition of repertoires and routines that allowed them to better understand and cope with diversity.

Gender not a factor that affects the number of errors made and/or detected in a multicultural work environment. This is an expected result. Hispanic men and women have increasingly gained equal access to education and job opportunities.

Length of time working at the present position also influenced the number of errors and misunderstandings caused or detected by a worker in a multicultural environment. This may be the result of experience or of the acquisition of repertoires and routines allowing them to better understand and cope with diversity.

Job classification was also a factor influencing the number of errors made and/or detected in a multicultural work environment. Managers as compared to other workers, tended to have higher levels of academic education. They also tended to have, more time and experience at their present jobs.

The level of academic studies influenced the number of errors made and/or detected in a multicultural work environment. More academic studies may prepare workers to better function in a multicultural environment. Students are generally exposed to unique experiences that may involve interaction with other students and teachers from other cultures. Higher academic education, in the United States and Latin America, usually involves the study of English. Proficiency in English was a factor influencing the number of errors made and/or detected by a worker.

References

- Bigoness, W. J. & Blakely, G. L. (1996). A cross-national study of managerial values. **Journal of International Business Studies**, 739-753.
- Darcy, L. (1995, June). Strength in diversity. *Hispanic*, 8(5), 60-62.
- Dolainski, S. (1997, February). Are expats getting lost in the translation? **Workforce**, 32-38.
- Gillespie, K. & Teegen, H.J. (1995, December). Market liberalization and international alliance formation: The Mexican paradigm. **Columbia Journal of World Business**, 58-70.
- Hansen, C. D. & Kahnweiler, W. M. (1997, December). Executive managers: Cultural expectations through stories about work. **Journal of Applied Management Studies**, 117-139.
- Harrison, J. K. & Hubbard, R. (1998, October). Antecedents to organizational commitment among Mexican employees of a U.S. firm in Mexico. **Journal of Social Psychology**, 138(5), 609-624.
- Hofstede, G. (1980, Summer). Motivation, leadership, and organization: Do American theories apply abroad? **Organizational Dynamics**, 9 (1), 42-63.
- Khosla, L. (2001, May 21). You say tomato. **Forbes**, p.36.
- Lee, E. (1996, July). Culture and management - A study of a small Chinese family business in Singapore. **Journal of Small Business Management**, 63-67.
- Newman, K. & Nollen, S. (1996, Fourth Quarter). Culture and congruence: The fit between management practices and national culture. **Journal of International Business Studies**, 753-779.
- Nine-Curt, C. (1983). Intercultural interaction in the Hispanic-Anglo ESL classroom from a non-verbal perspective. Río Piedras, PR: University of Puerto Rico Press.
- (1991). Working, living and learning together: The Americans, Japanese and Puerto Ricans. Aguadilla, PR: Hewlett Packard OKI Printed Circuits.
- (1993). **Así somos** [That's the Way We Are]. Río Piedras, PR: University of Puerto Rico Press.
- (1995). **Non-verbal communications in Puerto Rico**. Cambridge, MA: Evaluation Dissemination and Assessment Center.

Pelled, L. H, & Xin, K. R. (1997, December). Work values and their human resources management implications: A theoretical comparison of China, Mexico, and the United States. **Journal of Applied Management Studies**, 6(2), 185-198.

Ravid, R. (1994). **Practical statistics for educators**. (pp. 8 and 23.) University Press of America, Inc.

Secretaría de Economía, Gobierno de Mexico (2005). **Mejora regulatoria en programas de Maquila y Pitex: Nuevas Disposiciones** [Regulatory improvement in Maquila and Pitex programs: New dispositions]. Retrieved April 16, 2005 from [http:// www.economia .gob.mx/?P=1150](http://www.economia.gob.mx/?P=1150)

Shinn, M., Wong, N., Simko, E. & Ortiz-Torres, B. (September, 1998). Diversity dilemmas at work. **Journal of Management Inquiry**, 252-270.

Stephens, G. K. & Greer, C. R. (1995, Summer). Doing business in Mexico: Understanding cultural differences. **Organizational Dynamics**, 24(1), 39-55.

Teagarden, M. B., Butler, M. C. & Von Glinow, M. A. (1992, Winter). Mexico's maquiladora industry: Where strategic human resource management makes a difference. **Organizational Dynamics**, 34-48.