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EDUCATIONAL ATTAINMENT AND ORGANIZATIONAL PERCEPTIONS OF MEXICAN-AMERICAN SUPERVISORS

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EDUCATIONAL ATTAINMENT AND ORGANIZATIONAL PERCEPTIONS OF MEXICAN-AMERICAN SUPERVISORS

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ABSTRACT

EDUCATIONAL ATTAINMENT AND ORGANIZATIONAL PERCEPTIONS OF MEXICAN-AMERICAN SUPERVISORS

By

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The educational attainment of Mexican-American industrial supervisors and its relationship to the work organization was explored to determine the correlations, possible learning modality, and supervisors' organizational behavioral characteristics. The study focused on the perceptions of Mexican-American supervisors concerning training and career needs, organizational climate, and participatory management. Such information is critical when management promotes, established training programs, and/or embarks on an organizational-development course. Educational levels and organizational perceptions of 25 Mexican-American supervisors in two bus-manufacturing plants in Brownsville and Harlingen, Texas, were analyzed to determine relationships between supervisors' educational levels and the items analyzed.

A literature search revealed little research in this area. Thus, the literature review (a) developed a typology of attributes of Mexican-American supervisors in industry, (b) discussed some educational problems of Mexican-Americans, and (c) indicated that

Mexican-Americans' educational attainment is similar to that of other similarly situated socioeconomic groups. The literature presented data similar to this researcher's findings--that Mexican-American supervisors are similar to the majority culture in attitudes, perceptions, and training needs.

The writer focused on supervisors' training needs and modality of training, readiness for organizational development, participative management status, and factors that may influence perceptions toward the work organization. Major conclusions were as follows: (1) No significant relationship existed between age and total years of formal education. (2) There was a percentage spread between self-perceived performance level, career needs, age, and education. (3) No significant correlation existed between training needs and education or age. (4) The predominant motivational need was self-actualization, regardless of education or age. (5) The higher the supervisors' age and educational level, the less they believed the organization was willing to allow them to participate in management. (6) Attitudes toward the organization's climate decreased with increases in age and education. (7) The VADS mean decreased with age and increased with education. The RAVENS indicated there was no relationship between age and intelligence; however, the more education the supervisor had, the higher the RAVENS mean.

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CHAPTER I

INTRODUCTION

Background

According to the literature, it is a well-known fact that there has been a constant and rapid rise in the average level of education in the current American work force. Robbins (1978) stated that this tells us that entrants to the work force are better educated than their predecessors. What is more important, one finds that these new workers are replacing individuals who have had much less education. This indicates that the supply of educated new labor entrants is beginning to outpace the rate at which comparable jobs are being created. Therefore, as Berg (1969) wrote, the number of people with college degrees is increasing far more rapidly than the demands of job requirements. Young (Monthly Labor Review, 1982) indicated that employers continue to use education as one of the basic qualifications for hiring and promotion. In March 1981, there were almost as many workers age 25 to 64 who had completed a year or more of college as had ended their formal education with a high school diploma. As a result, workers with less than college-level training are finding themselves unsuccessfully competing for advancement within industry since a greater proportion of managers are now college graduates.

Ginzberg (1975) stated that the educational level of our citizens is constantly rising. Whereas in 1940 only 32% of the population were graduated from high school and only 5.7% from college, by 1967 this figure had risen to 60% for high school and 12% for college. Drucker (in Sutermeister, 1969) wrote that the number of managerial, professional, and technical employees is growing each year and that accompanying this growth is an increase in educational attainment, i.e., more college-educated individuals.

As Patten (1971) pointed out, first-line foremen have, in the past, come from hourly ranks, possessed a high school education (or less), and few foremen had ever been college graduates. He also stated that despite their limitations in formal education, foremen have, over the years, moved into higher-level positions in production management. However, some managers believe that employees who work their way up the organizational hierarchy through production are less desirable as manufacturing executives than college graduates who, although they lack the years of production experience, have a broader sense of education to draw upon in carrying out management work. As a consequence, many large companies have in the past decade attempted to recruit college graduates from the campus for placement in production.

As summarized above, first-line supervisory positions are now being filled by "better educated" individuals. Thus, a basic question arises as to what happens to those who have not completed a high school diploma or are less educated than what the employment market now caters to.

In the Brownsville, Texas, area (where this research was conducted), 80% of the population is of Mexican-American descent. This fact presents a different situation to industry because not only is this minority group one of low educational attainment, but it is also at the low income level and possesses definite subcultural differences.

To account for the lack of educational and occupational attainment of Mexican-Americans, many educators and social scientists have stated that Mexican-Americans come from a social and educational environment that inhibits achievement. Johnson (1970), for example, suggested that the tomorrow attitude, along with the placing of the future in God's hands, has impeded this group's initiative, planning for the future, and overall ambition.

Along with having been identified as a culturally disadvantaged minority, Mexican-Americans have also been identified as an economic minority. Mestre (1971) wrote that economic minorities are, if anything, a marginal component of the labor force. Changes in the structure of the economy and/or the level of economic activity tend to affect them disproportionately under the present institutionalized framework. The former, in particular, seems to have become a more serious problem for it has tended to be accompanied by the need to upgrade labor quality. The problem is complicated by a rather strong tendency in the United States whereby people at the margin tend to come from the same groups. This, Mestre wrote, reflects the lack of

equal access to economic opportunity that has become largely institutionalized.

Mestre also speculated that it has been accepted by American society that a person who attends a school of lower standing will be at a competitive disadvantage against one who has attended a well-known school. He concluded that since minorities have tended to attend relatively inferior schools due to the lack of financial means, they (minorities) have remained at a competitive disadvantage inasmuch as some education might have been attained. Education has been used as a stepping stone to higher income, yet Mexican-Americans have played a minimal role in this area. The U.S. Bureau of the Census (1979) stated that the median income for Mexican-Americans was $5,780, with many of this group having earned less than $5,000 per year. Inasmuch as some progress had been made in past years as it related to education, statistics indicated that a significant number of Mexican-Americans exhibited low educational attainment.

Census figures indicated that Mexican-Americans in general possessed an educational median of 9.8 years. A total of 43.9% of the Mexican-American population have completed eight years or less of school, 44.7% have finished between one and four years of high school, and only 2.8% of the population has completed four years of college or more. If education has been considered the medium to enhance status, it can be stated that the apparent lack of education has hindered social and job vertical mobility for the Mexican-American. Mexican-American supervisors lack an education that is viewed by upper management as being an integral part of their need

for upward mobility; therefore, this prospective supervisory group may be doomed to its current organizational status.

Sanchez (in Samora, 1969) wrote that as late as the 1940s some school systems segregated "Mexican" children throughout the 12 grades of the public school. This segregation contributed to social stereotypes from those in highest authority to those at the classroom level. Sanchez wrote that language handicap and bilingualism have been used to justify "racial" discrimination.

In the literature, it was documented that Mexican-Americans are economically and educationally below other Americans. It is also known that a trend to hire better-educated (college-educated) individuals is occurring in industry and that the top managers believe a college education is essential to upward managerial mobility. This trend and belief may have affected, or may still be affecting, economic minorities due to their lower average educational attainment.

Statement of the Problem

The educational attainment of Mexican-Americans and its relationship to the perceptions of Mexican-American supervisors toward an organization is the problem that was explored in order that industry can understand the implications the organizational environment has in reference to the behavior of the aforementioned group. It has been well established that, in the United States, education has been used as a stepping stone to more desirable occupations, higher incomes, and acceptance by society. What

happens, then, when an individual supervisor or supervisory group has limited education, lower income, and a perception that he/she is semi-rejected by society and/or rejected by the organization for which he/she works? This question must be answered to assist industry and other organizations concerning the Mexican-American supervisor, especially along the United States/Mexican border.

Management in industry and/or in the organization has known how it views those of lesser education. Therefore, it is important for industry to know how those employees (Mexican-American supervisors) in turn view the organization. Additional questions that must be answered are:

1. Is there a direct relationship between education of this group and their attitudes toward their position and toward the organization?

2. Is there a direct relationship between education and the supervisor's career goals?

3. Is there a direct relationship between educational attainment and the supervisor's perception of training needs?

Even though empirical evidence is limited, the general implications for industry, especially where large populations of Mexican-Americans reside, is highly important. Without this information only tentative and questionable decisions and assumptions can be made by management as it relates to the "needs" and perceptions of the Mexican-American supervisor.

Statement of Purpose

Industrial organizations need to know, especially along the United States/Mexican border where much of industry appears to be relocating, what Mexican-American supervisors' general educational attainment is, what their possible perceptions of the organization are, and if there is a direct relationship between these factors.

Such information is considered to be critical when management promotes, establishes training programs, and/or embarks on an organizational-development process. In this study the educational levels and organizational perceptions of Mexican-American supervisors in two bus-manufacturing plants located in Brownsville and Harlingen, Texas, were studied to determine if there was a direct relationship between education and the dimensions surveyed.

An initial review of the literature revealed that only a few studies have dealt with the educational and occupational orientations of Mexican-Americans in general. None was found relative to Mexican-American supervisors, their educational attainment, and/or their perceptions of the organization in which they were employed.

Given the lack of factual knowledge on the subject, it was this researcher's belief that the findings of this study could provide some knowledge and basis for future research in this field. The study also helped in clarifying some of the generalizations made about this group by management, especially along the border. By researching this area, one can quote Ginzberg (1979) by stating that altering the employment outlook for a large sector of the minority population requires a two-pronged approach: (a) to raise the

performance level of the educational system, an undertaking that remains as elusive as it is important, and (b) to improve dramatically the programming of significant skill acquisition by the trainees and to establish closer linkages between the training and employment systems, particularly in the private sector.

Not only does this investigation provide a basis for additional research in this field, but it also provides insights for management and supervisory training, trainees, and trainers in the development of training programs. The professional trainer long ago discovered the importance of the culture, education, and perceptions of its group/audience. If either was lacking, all the care taken in a systemic approach to reach or train a specific audience was wasted. This study provides a foundation for training flexibility so that localized training can take place. To study only education and not the correlation between education and the perceptions of this group toward the organization by which it is employed would, in fact, leave primary variables of training and development as an afterthought.

Design of the Study

The study was conducted in two bus-manufacturing plants located in Brownsville, Texas, and in Harlingen, Texas (Eagle International, Inc., and Trailways Manufacturing, Inc.). The target population for the study comprised Mexican-American supervisors who were classified as foremen and/or supervisors at both facilities. It was expected that their educational attainment would vary. The educational and economic characteristics of the Brownsville area in 1978 were

outlined in an unpublished paper by Miller and Binder in their Brownsville 1978. Some of the findings were:

1. Brownsville's population in 1978 was 76,485 (1985 = 83,000), with Mexican-Americans being 75% of the population and Anglos being 23%.

2. Household earnings for Mexican-Americans were $8,037, and Anglos' household earnings were $17,521 (1978 figures).

3. Educational attainment for Mexican-Americans was 7.7 years, and Anglos had 14.2 years (1978 figures).

The Chamber of Commerce, in a study titled The Valley Year 2000, claimed that Mexican-Americans currently comprise 80% of the local population and will comprise a minimum of 85% by the year 2000.

The instruments that were used to test/survey participants consisted of the Visual Aural Digital Span (VADS) and the Standard Progressive Matrices by J. C. Raven (referred to as the RAVENS). The VADS is used by professional educational diagnosticians to test and measure short-term memory and possible learning modes (can be derived). The RAVENS is used by professional educational diagnosticians and psychologists as a nonverbal intelligence test. Such tests are commonly used in testing foreign-speaking adults, illiterates, and/or others with language deficiencies.

Along with these two testing instruments, seven questionnaires developed by Management Research Systems and used in industry as organizational questionnaires/surveys were used. Thee seven were: Career Development Profile (CDP), Career Values Scale (CVS), Employee

Motivation (EM), Participative Climate Diagnosis (PCD), Organization Climate Survey (OCS), Training Needs Analysis Survey (TNAS), and Supervisory Training Needs Analysis (STNA). These questionnaires have been used in industry to measure various aspects of organizations as related to employees. These instruments have been used by companies such as General Motors, Westinghouse, Exxon, and others. A short description of each is as follows:

CDP. Designed to assess career interests, ambitions, motivations, and goals among management and supervisors; assesses the employees' interests and current skills level (40 items).

CVS. Evaluates career interests, goals, needs, and aspirations. Consists of 80 items of preference alternatives in four categories: work environment, position preference, growth ambition, and career introspection.

EM. Designed to better understand the motivational needs of the employee. Consists of 40 pairs of alternatives and five structured conditions related to Maslow's Hierarchy of Human Needs.

PCD. Assesses organizations for employee-involvement programs and obtains perceptions about conditions affecting an employee's productivity. Consists of 50 items in dimensions such as creativity, productivity awareness, problem solving, performance goals, motivational climate, and resistance to change.

STNA. Assesses developmental needs of managers and supervisors. Consists of 20 sets of conditions regarding supervisory practices, skills, and abilities.

TNAS. Identifies supervisory training needs; focuses on perceived training requirements and needs (50 items).

OCS. Identifies supervisory perceptions of the organizational climate (50 items).

Hypotheses

The null hypotheses examined in this study were:

Null Hypothesis 1: There will be no significant differences between educational attainment with regard to the dependent variables.

Null Hypothesis 2: There will be no significant differences between age and the dependent variables.

Dependent Variables

The dependent variables were (a) career development expectations, (b) personal motivational needs, (c) organizational climate, and (d) training needs perception. The supervisory group was classified according to the following variables, in order to analyze correlations between education, age, and the dependent variables: (a) educational background: non-high-school graduate; high school graduate; college, nongraduate; and college graduate; and (b) age: 20-29, 30-39, and 40 and above.

The data collected for this study were gathered using the instruments described earlier in this chapter. All first-line Mexican-American supervisors at both manufacturing facilities were tested and surveyed. The questionnaires were administered by the researcher, and the VADS and the RAVENS were administered by a state professional educational diagnostician.

Dependent and independent variables were analyzed to determine if any significant differences existed. The educational diagnostician provided the test results. Frequency distribution analysis was used for the variables since that was the statistic recommended by the designers of the instruments for interpretation. The Pearson correlation was also used to test for correlations. A detailed personal survey was also used. The personal survey included, but was not limited to, such items as age, place of birth, marital status, number of dependents, personal and household income, and other factors. Length of service, years of work experience, years of experience as a supervisor, and other data were gathered and analyzed. Individual personnel folders were made available by the company and were used to cross-reference much of the information gathered from the personal questionnaire.

Limitations

1. The geographic location of those participating in this study was limited to the Brownsville, Texas, and Harlingen, Texas, areas. All were Mexican-Americans (American born or Mexican born). The characteristics of the area and of the supervisors studied might have been similar to those of the border Southwest but did not exactly duplicate other areas.

2. The study was limited by the fact that the supervisors studied were from two bus-manufacturing companies only.

3. The small cell size (25 supervisors) was a limitation.

Definition of Terms

Mexican-American. Persons born in the United States and whose parents or ancestors immigrated to the United States from Mexico, or persons born in Mexico but now residing in the United States.

Anglo-American. Refers to White persons who are not members of Spanish-surnamed groups or whose parents or ancestors did not derive from Mexico.

Aspirations. Individual desires for attainment of a particular goal, such as education or occupation.

Expectation. The individual's estimation of his/her probable attainment in reference to a particular goal.

Overview of Subsequent Chapters

In the first chapter the researcher discussed the low educational attainment levels of Mexican-Americans and examined the low economic status of this ethnic group. Also examined were the industry trends to hire college-educated personnel because of favorable perceptions about this group, along with their increasing availability. Although the Mexican-American population in the Rio Grande Valley (where the study was conducted) was the definite majority, only a small minority of this group have been able to penetrate the middle-management levels of industry.

In the second chapter, the literature pertinent to Mexican-American educational levels, training needs, and organizational perceptions is reviewed. The third chapter introduces the

methodology and analysis of the data collected. The findings are presented in the fourth chapter. Chapter V includes a summary, conclusions, and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of this chapter is to survey the pertinent literature concerned with (a) the educational achievement of Mexican-American supervisors, (b) characteristics of Mexican-American supervisors in industry, (c) training needs, and (d) motivational needs of Mexican-American supervisors. The findings were used to develop a typology of attributes of Mexican-American supervisors in industry.

There was a large, well-defined body of literature concerned with the general population's educational characteristics, motivation, career aspirations, and employee-training needs/theories. However, the literature that dealt specifically with the above as it related to Mexican-Americans was minimal and, in some instances, nonexistent.

Education

Although no literature was located that addressed the Mexican-American supervisor's educational level, some literature was located that addressed educational attainment of Mexican-Americans in general, and some of the educational problems of the Mexican-American. Jackson (in Escobedo, 1981) wrote that U.S. Senator Ralph

Yarborough stated in 1967 that his own state of Texas ranked at the bottom of Mexican-American educational attainment, with a median of only 4.7 years of school completed by persons of Spanish surname, according to the 1960 census.

Duran (1983) found that educational attainment among Hispanics lagged far behind that of the population as a whole at all levels of schooling. In 1977, only 55.5% of Hispanics aged 18 to 34 years had completed high school, as compared to 83.9% of white persons of the same age range. This author recommended that educational systems and teacher styles of interaction warranted change in order to accommodate Mexican-American cultural values and cognitive styles.

In an effort to discuss Mexican-American educational attainment, the writings directed at some of the situations Mexican-Americans face in the educational world must also be addressed. Heller (1966) wrote that achievement in any realm depended on at least three factors: that access to the field be open; that motivation for reaching the goal be present; and that the necessary resources, such as ability and "know-how" for reaching the goal, exist.

In relation to this goal attainment, the United States Commission on Civil Rights (1970) wrote that Mexican-Americans were generally advised that education was the key to solve many of this group's socioeconomic problems. However, the promise of this advice was an inference that the Mexican-American could obtain an education by merely wanting it. Others, such as Ludwig and Santibanez (1971), expressed that the single most significant manifestation of the educational problem of Mexican-Americans was the language (Spanish).

They wrote that, unfortunately, on the basis of unsuccessful attempts, educators felt that either the students were unteachable or that nothing would work. Still others (Heller, 1966) felt that the quality of the school experience may be the decisive factor in stimulating ambition among Mexican-American youths as well as the rest of the overall education. Heller stated that simply because these youths had high aspirations, it did not imply that they would be able to reach their goal(s). As Zisman (1975) stated, educational background can raise expectations beyond what is reasonably tenable for the individual.

Ramirez (1970) wrote that the rate of illiteracy among Americans of Mexican ancestry was usually high as a result of one or a combination of the following factors:

1. immigration laws that permit a constant flow of new citizens unable to speak, read, or write the English language;

2. inadequate instruction of non-English-speaking school children due to untrained teachers, inappropriate methods and materials, and sometimes, to discriminatory practices;

3. limited educational aspirations of this population, which are often a result of frustration brought about by repeated failures at impossible tasks imposed by school; and

4. limited opportunities for adults to get a second chance to achieve literacy.

Zisman (1975) concurred by saying that educational attainment was linked to family background (as measured by father's occupation),

English proficiency, North American friends, work experience, and nonformal education in the United States. The author stated that expectations, motivations, and those qualities that shaped the predisposition of the immigrant to adjust to his new environment would affect the degree of his economic absorption. He wrote that it is generally believed that the predisposition of the immigrant to adjust to his new environment would affect the degree of his economic absorption.

Zisman additionally stated that the typical life cycle of the undereducated Mexican-American developed in the following way:

1. He was reared in a humble home, large family, Spanish was the only language spoken, and it was seldom read or written in the home.

2. He lived in a Spanish-speaking neighborhood, and at six years of age his entire life started being patterned after those of his English-speaking counterparts in the school across town.

3. He married a fellow dropout at an early age, and the cycle started anew.

In reference to educational objectives, Castaneda, Ramirez, Cortes, and Barrera (1974) wrote that if the dominant cultural group set the educational objectives and prescribed the means of attaining those objectives, it was not surprising to find that Mexican-American children were placed at a disadvantage and therefore did not have an equal opportunity to learn. They further stated that the view of the melting pot was exclusive in that assimilation was often viewed as

desirable (by the dominant group) only if the Anglo-Saxon cultural pattern was taken as the ideal value system.

Heath (1972) wrote that the Chicano, like the Indian, was considered a failure by virtue of the very fact that he was a Chicano. Indian leader Jack Forbes called this process "mental genocide." Forbes (1970) stated that academic tests were largely the learning of a culture, and since the culture tested was White, it was not logically inconsistent that Chicano students performed very poorly on examinations. He concluded that the content and teaching strategies should be tailored to the unique learning and incentive-motivational styles of the learners.

Bullock (in Burma, 1970) wrote that two problems confronted most Mexican-Americans in Texas: (a) school districts with high Mexican-American concentrations tended to be poor and, therefore, offered inferior and oftentimes segregated facilities; and (b) cultural factors and unenforced school-attendance laws made it especially difficult for Mexican-American youngsters to benefit from a school program directed to the English speaking. Bullock further stated that Mexican-American spokesmen, employers, and educators generally agreed that education was the key to the solution of the Mexican-American's employment problem. However, he also stated that the schools tended to blame Mexican-American parents for allegedly failing to motivate the children. On the contrary, Mexican-American spokesmen have charged the school system with the failure to meet the needs of students other than the Anglos.

It is important to note that the Civil Rights Digest (Winter 1970) stated that many of the characteristics attributed generally to Mexican-Americans were in fact attributes found among people living in the culture of poverty. The generalizations included:

1. extended family (close ties),
2. nonjoiners in associations,
3. prefer the old and familiar routines,
4. demonstrate a marked anti-intellectualism,
5. male dominance,
6. greater use of physical force,
7. appear unable to postpone gratification, and
8. fatalistic in their view of the world.

Keller (1966) reported that characteristics or foundations of personality, character, and behavior were laid down in the family. Keller found that adults reflected the home influence of their formative years. She stated that some generalizations found through her research included:

1. short-time perspective--oriented to present rather than future planning,
2. preoccupation with money,
3. a feeling of insecurity,
4. belief that authoritarianism is essential, and
5. high rate of school failure.

Concerning adult learning, This and Lippitt (1983) wrote that (a) the average older adult in an adult education program was at least as intellectually able, and performed as well, as the average

younger participant; (b) adults who continued to participate in educative activity learned more effectively than those who did not; and (c) adults learned far more effectively when they were permitted to learn at their own pace. It must also be noted that as adults the Mexican-Americans have suffered from educational neglect inasmuch as some educational achievement may have been obtained. Carter (1970) wrote that schools very consciously attempted to teach the dominant culture to all children and especially the ethnically distinct groups. In fact, he wrote, the curriculum was merely culture as defined by and found within the schools.

Carter (1970) contended that school achievement was closely related to social class and home background. He summarized that the more the child is like what the school expects, the better he will achieve; that is, the higher the acculturation level, the higher the educational achievement tends to be. He addressed the withdrawal from educational institutions by Mexican-Americans by stating that the mental withdrawal of many Mexican-American children, beginning usually in the intermediate grades, perplexed educators. He stated that some research contended that the child found the intermediate grades too difficult and the curriculum too abstract. Carter contended that others believed that the withdrawal and the resulting poor achievement levels were due to the child's recognition of his own chances in life, what the future offered, and the influence of his socially awakening peers.

Carter and Segura (1979) wrote that American educators, pressed to explain the failure in school of low-status and minority-group children, continued to rely heavily on the theory of social deprivation. He believed that educators felt that the fault was seen to lie in the socialization offered by the home and neighborhood. This in turn would cause educators to assume that the child must be changed, rather than society or its educational institutions. These authors concluded that educators generally possessed the view that Mexican-Americans were outsiders and were not expected to participate fully in American life. They further wrote that society and its schools prepared Mexican-Americans to live in the traditional economy of the Southwest. They concluded that the school system equipped the Mexican-American child with the knowledge and skills appropriate to a subordinate social status, that being minimum English-language skills, rudimentary reading and arithmetic, and the values necessary for a law-abiding but nonparticipating and essentially disenfranchised citizen.

Mexican-American Supervisors

No literature was located that referenced Mexican-American supervisors. However, various literature was researched that dealt with supervisors and supervision in order to categorize Mexican-American supervisory attitudes.

Beach (1970) wrote that the successful supervisor was the one who was able to blend the forces within the group in such a manner as to channel them toward the goal of his department and of the total

organization. He found that the best supervisors were those who strived actively to build up strong group pride and cohesiveness, along with those who had a desire to participate as a group leader.

Accordingly, a supervisor can be considered a pivot point between management and labor. Franklin, Wissler, and Spencer (1977) found that a supervisor was one who transmitted to the group an idea of the work standards that were expected and necessary, instilled a sense of pride and a quality product. They further wrote that the supervisor actually belonged to two different organizational groups. They wrote that the supervisor was an individual who was the supervisor in one group and at the same time functioned as a subordinate in another group. This dual membership served the function of linking together groups at adjacent levels of the hierarchy, therefore providing a means for transmitting information from higher to lower and from lower to higher levels of the organization.

These same authors wrote that all members of any organization contributed to the leadership role and identified conditions that influenced leadership behavior. Such things as the organizational environment, policies, procedures, and objectives were identified as other factors influencing leadership. They categorized and defined four operational functions of the supervisor and/or leadership role in any organization. These four functions were:

1. Support: leadership behavior that enhances feelings of personal worth and importance.

2. Team building: leadership behavior that encourages members of the group to develop close, mutually satisfying relationships.

3. Goal emphasis: leadership behavior that stimulates an enthusiasm for meeting the group's goals or achieving excellent performance.

4. Work facilitator: behavior that helps achieve goal attainment through such activities as scheduling, coordinating, planning, and providing resources and technical knowledge.

In reference to executives as well as to general management, Argyris (1957) wrote that the executive must diagnose the situation and then decide what is executive behavior in given situations. This leadership would lead one to conclude that effective leadership requires effective diagnostic skill. Katz (in "Steps Toward Personal Progress," 1983) elaborated that an effective administrator had to depend on three sets of personal skills. Those skills were (a) sufficient technical skills to accomplish the mechanics of the particular job for which he had responsibility, (b) sufficient human skills in working with others, and (c) sufficient conceptual skills to recognize the interrelation of the various factors involved in the given situations encountered. He concluded that this proved that good administrators were not necessarily born but were instead developed.

It appears that researchers have found that the effective performance of an organization is often associated with the ability of its leaders to lead. These authors wrote that competent managers should not only possess some technical qualifications and a broad

intellectual outlook, but must also have an understanding of human relations.

Terry (1972) stated that people liked to be led by a dynamic leader. They liked to be led by a person who clearly envisaged the goals, who knew how to achieve those goals, and who went out after them. He wrote that once the decision was made as to what the goals were and what people had to do to achieve them, leadership at all levels of the organization played a dominant role in seeing that the goals were accomplished.

Sutermeister (1969) stated that the leadership of an organization must be such as to ensure a maximum probability that in all interactions and all relationships within the organization each member would, in the light of his background, values, and expectations, view the experience as supportive and one that builds and maintains his sense of personal worth and importance. Terry (1972) found that the typical employee wanted a leader who knew what he was doing, spoke authoritatively, never made promises he could not keep, instilled confidence, and took prompt disciplinary action whenever it was necessary.

Schlek (1958) summarized his findings regarding supervision when he stated that supervision was intended to (a) decide what results were expected of an employee, (b) let the employee know what his/her performance was and held him/her accountable, (c) trained, (d) stimulated, (e) handled personal problems connected with the job, (f)

installed improvements, (g) smoothed over relationships with other people in the company, and (h) developed employees for promotion.

In view of the lack of literature regarding Mexican-American supervisors and while maintaining the above supervisory concepts in mind, this researcher reviewed the literature that contained research referencing Mexican-American value systems. Through this technique, the researcher was able to draw some conclusions in reference to Mexican-American supervisors. Some of the characteristics found were not necessarily mutually exclusive among Mexican-Americans but rather were also found to be, in varying degrees, in other groups/cultures.

Herrera (in Ludwig & Santibanez, 1971) determined that, as a group, Mexican-Americans had no feelings of inferiority. He wrote that they did aspire to ownership of many material possessions and that they were contemptuous of too much law and too much order. Ramirez (in Burma, 1970) stated that many of the Mexican-American values were opposed to the value orientation of the typical American middle class. He wrote that within the Mexican-American subculture, emphasis was often placed on the primary responsibility to family, maintaining family ties, and concentrating on the immediate present. He found that in the greater society, emphasis was placed on the individual and minimized family ties so as to facilitate geographic and social achievement, material wealth, and on future orientation, or deferred gratification.

Bullock (in Burma, 1970) wrote that individualism and distrust of the organization and even of government itself were

characteristics of the Latin community as a whole. He stated that current satisfaction in lieu of deferred gratification, particularly among the poor, involved a mixture of individualism and family unity, which left little room for an interest in the community.

Sheldon (in Samora, 1966), on the other hand, stated that individualism was a major characteristic of Mexican culture. He wrote that awareness of personal differences, along with respect and admiration for individuality, were characteristic in all social classes, and that Mexicans tended to react differently toward each person, depending on their interpersonal relationship. In comparing the Mexican culture to the American culture, he wrote that inasmuch as there was some semblance of individuality in the United States, the American individual would give way to the interests of the group as a whole.

As it related to employment discrimination, Bullock (in Burma, 1970) summarized his analysis by stating that discrimination directed against the Mexican-American in private industry was an everyday fact of life. This included discrimination from the smallest menial task to the highest-paid executive position, so long as it involved competition with an Anglo-American for such a position.

In relation to the Mexican-American's reaction to employment discrimination, Heller (1966) wrote that Mexican-Americans used psychological withdrawal as a solution to work-related problems. However, she wrote that when they were or considered themselves to be deceived, cheated, or otherwise wronged by an employer, they

frequently tended to leave their jobs. This author also wrote that Mexican-Americans would often not try to reach a goal barred by serious obstacles rather than pursue a goal at the risk of failure. If the Mexican-American did not try, Heller concluded, it did not reflect negatively on his manliness and honor, but to try and fail would. Thus, Mexican-American culture provided the rationalization for staying out of the "failure region" conceptualized by Kurt Lewin. This same author pointed out that achievement in any realm depended on three main factors: (a) that access to the field be open, (b) that motivation for reaching the goal be present, and (c) that the necessary resources, such as ability to reach the goal, exist.

Beach (1970), in writing about supervisors and their role, wrote that supervisors were frequently promoted from within the ranks and thus had once been blue-collar workers themselves. He mentioned that the supervisor looked at his job not only from an economic point of view, but also as a personal satisfaction of social and, most significantly, his ego drives. Beach wrote that the supervisor's job was unique because the attitudes and expectations of the rank-and-file workers were different from those of managers. He believed that workers had less upward mobility, possessed less education, and obtained fewer need satisfactions from the job. He concluded that the supervisor had to be perceptive to the feelings of his supervisors and to the feelings of his subordinates. The supervisor had to remember that he could not succeed as a leader if he ignored the needs of his subordinates.

Beach went on to write that groups in industry developed their own cultures, distinctive customs, beliefs, ceremonies, jargon, and ways of acting. These cultures or mores helped cement the work groups within the organization. When management understood the culture of the groups it was dealing with, it was in a better position to predict behavior and facilitate the changes it deemed necessary. He concluded that the supervisor had to be conscious of those below and above him and had to understand both groups' needs and norms. The supervisor, because his employees viewed him as having the power to reward, affected his immediate work group; and since he was part of management, he affected the managerial group, as well.

Training Needs of Mexican-American Supervisors

No literature was found directly related to the training needs of Mexican-American supervisors. However, some literature was available that addressed the teaching needs of Mexican-Americans in general. Cross (1977), for example, wrote that the teacher must see himself and his students as being participants in, and products of, a culturally diverse society. She wrote that students brought to and took from the classroom a sense of power or powerlessness that was influenced by the quality of the interactions within the classroom and the school. Therefore, in applying Forbes's (1970) concept that the school serves as a bridge for learning, it can also be applied to other facets of training. Forbes wrote that if the school is to be a bridge, it must serve as a transitional experience and not as a

sudden leap into a totally foreign set of values and practices. In borrowing from Jackson (in Escobedo, 1981), he wrote that due to the differences between and among Mexican-Americans themselves, the school's teaching methodology had to allow a high degree of individualism to match the high degree of diversity in the distinct language backgrounds.

In an effort to compare the training needs of Mexican-American supervisors, a survey of the literature that focused on training was conducted. Through the use of this process, it was anticipated that information regarding the different aspects of training development and its possible application to Mexican-American supervisors could be developed.

Tracey (1974) found that perhaps the most important challenge to business and industry today was to identify and develop its managerial resources. He identified three common training programs as being:

1. pre-supervisory training programs that focused on the development of supervisory, human relations, and leadership skills;

2. mid-management development programs that usually focus on management theory, decision making, and problem solving; and

3. executive development programs that usually involve on-the-job development, mainly coaching.

This and Lippitt (in Baird, Schneier, & Laird, 1983) wrote that some of the major ways in which learning theories attempted to provide the transfer of that which was learned on to the work situation were:

1. actually performing the task which was to be learned,

2. doing something that was similar to that which was to be learned,

3. reading or hearing about that which was to be learned, and

4. doing or reading on the assumption that it would help what was to be learned.

This and Lippitt also outlined 11 identified conditions they believed had to exist in order that learning take place, regardless of the learning theory involved. These 11 conditions were:

1. It must be accepted that all human beings can learn.

2. The individual must be motivated to learn.

3. Learning is an active process, not passive.

4. Normally, the learner must have guidance.

5. Appropriate materials for sequential learning must be provided.

6. Time must be provided to practice the learning.

7. Learning methods, if possible, should be varied to avoid boredom.

8. The learner must secure satisfaction from the learning.

9. The learner must get reinforcement of the correct behavior.

10. Standards of performance should be set for the learner.

11. It should be recognized that there are different levels of learning and that these take different times and methods.

Regardless of the training delivery employed, successful training programs should relate to what happens when the individual

returns to his/her job. Tracey (1974) wrote that training must accommodate the changing organizational environment and must provide the structure and coordination of those activities to facilitate goal determination and achievement of objectives. This author also stated that training should be sequential; i.e., first train for the individual job, operation, or function (quantifiable) and then conduct a management-improvement training program where policy, procedure, or techniques are discussed. Tracey continued by stating that the training should be effective (produce the required results) and responsive (training should be planned and conducted to meet the needs of the individuals and the organization).

Concerning adult training, Crapo (in Public Personnel Management, 1986) stated that adults take direct action if they feel they are being undertaught. Such actions included leaving the training program or listening to the "grapevine" about the value of the training program. Unlike youngsters, adults brought with them all their life experiences, not only the experience in the subject matter to be trained.

Michalak and Yager (1979) established criteria they felt were necessary for the design of effective training programs. The criteria they recommended as required were: (a) the instructional objectives, (b) the course content, (c) the student population and class size, (d) the instructors, (e) the facilities, (f) the equipment and materials, (g) the time available, and (h) the costs. These two authors discouraged trainers from using handouts, videos, and/or trainer demonstrations that do not take into account the

cultural differences of the trainees. They suggested that the training methodology should be one that best suits the student and should not be selected solely because it is the one with which the trainer feels the most comfortable.

To evaluate such programs, Michalak and Yager believed that training programs could be evaluated at four different levels: (a) the trainee reactions, (b) the change in trainee learning/skills, (c) behavior change on the job, and (d) the results to the organization. Regardless of the delivery methodology, they stressed active student participation and meaningful content.

Broadwell (1975) discussed some of the things that trainers should be aware of when developing a training program for supervisors. He stressed that low-skilled workers have had very little learning success and that any type of training or amount of learning may be viewed as a threat; thus, learning must take place in small amounts and success must be frequent. He stated that trainers had to remember that some employees were hired to fill certain basic jobs. Therefore, they were hired with no intention that they would ever move up within the organization. This author continued by stating that few people have had successful experience in training low-skilled workers to do higher-skilled work, especially those who were not hired with the idea of moving higher. He suggested that the trainer had to realize that the same technique used for other managers/supervisors may not be applicable to this supervisory (front-line) group.

Michalak and Yager (1979) suggested that in order to design a proper training program for first-line supervisors in a manufacturing environment, the trainer should develop a list of things that must be done before the actual training. These suggestions were:

1. Meet with the supervisors and ask them to write a statement of an outstanding supervisory behavior they have done or seen.

2. Discuss the statements and determine which are single incidents versus which pertain to the supervisor.

3. Supervisors write an example of a poor behavior.

4. Critique and discuss.

5. Determine what average performance is.

6. Critique.

The authors stated that once this exercise was completed, the trainers would then have obtained a given idea of the specific behaviors of the target population. The authors went on to state that there were other and distinct techniques that a trainer could use to determine an organization's training needs. These could include such things as: (a) individual interviews, (b) group interviews, (c) questionnaires, (d) force-field analysis (examine behavior and forces behind it), (e) critical incident technique (80/20), and (f) behavioral scales whereby supervisory behavior is identified and critiqued.

Wexley and Latham (1981) also recommended the coaching method as a good technique for training supervisors. However, they cautioned that while communication between the subordinate and the supervisor

tended to increase via this method, the supervisor would have to be cautioned not to lose sight of the fact that a conflict between his role of being both coach (trainer) and judge (boss) could develop. To improve the effectiveness of this technique, the author recommended that:

1. Employees should have substantial participation in the developmental process of the training program.

2. Specific training and learning goals had to be established.

3. Specific improvement goals had to be mutually established.

4. Supervisory (coach) attitude had to be helpful and constructive.

5. Criticism should be kept to a minimum.

6. Feedback of both behavior and results had to take place.

7. Coaching sessions had to be based on a variable-internal schedule (when significant variations occur in an employee's job performance).

Regardless of the supervisory training process, good communications are vital to the learning process, and the maintenance of position reinforcement is essential. Broadwell (1975) wrote that people were subject to learn out of (a) fear, (b) curiosity, (c) self-satisfaction, (d) social pressures, (e) economic values, and (f) rewards. He also stated that people failed to learn because they (a) lacked the motivation, (b) lacked the background, (c) rebelled against authority, and (d) failed to relate the training to their job. This same author cautioned that an employee was also capable of

learning something incorrectly and then experiencing difficulty in unlearning that given behavior. He added that the trainer must remember that the environment may also affect the training itself. That is, the training may be excellent, but the social-psychological environment may be such that the employees may refuse to change. This is especially true in bicultural settings where, as Ramirez (in Johnson & Hernandez, 1970) suggested, the bicultural individual is constantly forced to choose between his loyalty to two different groups, thus constantly under stress. He added that the bicultural man, in his desire for stability, searched for ways that would reduce his discomfort, i.e., resolve the conflict by choosing one group and rejecting the other.

Carter and Segura (1979) identified this dilemma as resulting in a self-concept in which the affected group/individual established a self-image in which a picture of himself has been derived from the perceptions of others. Therefore, the trainer(s) should be aware that such trainee(s) may require positive reinforcement to maintain the expected behavior. Accordingly, trainers should remove obstacles that have been identified as hampering learning or obstructing the use of the newly learned skills by maintaining this positive-reinforcement concept. In addition to this and borrowing from Hanson's (in Cabrera, 1978) research concerning parental involvement in schools relative to training programs, it can be stated, for comparison purposes, that the first step to adult involvement in education is to make the adults (trainees) feel welcome in the school system and environment. The author suggested that the trainer must

demonstrate this welcome both verbally and nonverbally. Longstreet (1981) found that trainers should be conscious that people from different ethnic groups may attach meanings to otherwise similar nonverbal expressions.

Adler (in Pfeiffer & Goodstein, 1986) wrote that organizations must be aware of cultural blindness, that being it is both perceptual and conceptual. She stated that any form of effective cross-cultural management must start with a concerted effort to recognize cultural diversity without judging it and to perceive differences where differences existed.

Concerning the shaping of trainee behavior, Wesley and Latham (1981) suggested that it was the manager who had to shape the subordinate's behavior. This process was referred to as "shaping" and was seen as useful whenever the process that was to be learned was either too complex or not within the trainee's ability. They further contended that Skinner (in Wexley & Latham, 1981) suggested that positive reinforcement with extinction (ignoring an undesired response) was recommended for conditioning and shaping of behavior.

In relation to changing attitudes, Lewis (1986) wrote that attitudes were difficult to change and that it took a great deal of time. He stated that attitude training was best performed through the role-model behavior of the supervisor and manager.

Motivation and Organizational Needs

No literature was located that dealt with the motivational and organizational needs of Mexican-American supervisors. Therefore, the

literature that addressed supervisory motivational and organizational needs was researched in an effort to compare and/or form a conclusion as to what Mexican-American supervisory needs may be.

Johnson and Hernandez (1970) found that in assessing attitudes of school children, there were no significant differences between ethnic groups. In applying this basic concept (no differences in attitudes) to management, the researcher believes that, as Herzberg (in Sutermeister, 1969) indicated, an executive may feel depressed in a particular job situation not because of the job itself but rather due to the conditions surrounding the job. These events, the author claimed, suggested to the individual that the context in which he performed the work was unfair and/or disorganized and as such represented an unhealthy psychological work environment.

In reference to supervisors and the fact that some have been promoted through the ranks, it is important to remember that blue-collar employees have often organized themselves to protect each other from the effects of organizational competition or from their perceptions regarding an unhealthy work environment. Beach (1980) pointed out that a serious disadvantage in using competition as a motivating instrument existed in the frustration experienced by the losers. He indicated that any of the various forms of negative behavior induced by frustration could occur to the losers, to include aggression, regression, resignation, fixation, and the like. Thus, learning through competition may not necessarily result as a positive

motivator for supervisors or cultural groups that perceive their losses to be almost inevitable.

According to Skinner (in Wexley & Latham, 1983), a positive reinforcer is any stimulus that, when added to the situation, strengthens the probability that the exhibited behavior will be repeated. The trainer, therefore, must ensure that the reinforcement stimuli are correctly identified and evaluated for the specific group before beginning a program of positive reinforcement.

Hinrichs (1974) found that organizational reward systems were important to the organization and its output. He wrote that when effective performance was rewarded and ineffective performance was not rewarded or was discouraged by the reward system, high-quality work tended to be sustained. He found that when organizational rewards and the goals of the individual were in close harmony, there was an optimum environment for effective performance. The direction of learning effort expended could, therefore, be thought of as a link between goals and rewards. Thus, he determined that it was difficult to assess what an individual's satisfaction level was without specifying what the person was reacting to. What a person experienced as compared to what the person was expecting to experience could affect any given reward or motivation.

Franklin, Wissler, and Spencer (1977) wrote that groups formed in organizations because of the task requirements and because the social needs were fulfilled through membership in these same work groups. Although individuals are usually members of many other social groups, it was studying the work group as a social group that

was important in understanding how organizations functioned. These authors wrote that there were six major aspects of organizational climate that had been identified through studies in organizations. These included (a) human-resource primacy, (b) communication flow, (c) decision-making practices, (d) motivational conditions, (e) lower-level influence, and (f) technological readiness.

Another factor that trainers must recognize is that there are two organizations within any organization. Tennenbaum (1966) suggested that one was the formal organization that was planned and intended to perform by its designers. The other was the informal organization, which was the unplanned, informal set of groups, friendships, and other such attachments that developed when people were placed in proximity to one another. These organizations or relationships, which grow out of the personal needs of members, are not fully accounted for by the formal organization and may sometimes be designed to protect the members from the demands of the formal organization. Thus, supervisory attitudes may be formed from both the formal and informal organizations to which the supervisors belong and that in all actuality comprise the organization as a whole.

An organization's behavior may be dependent on a number of factors that involve and/or include factors that are both external and internal to the organization. Such things as market conditions, the surrounding population and workforce, employee norms and motivation, rewards and penalty systems, along with the organizational structure itself are determinants of the

organization's behavior. Organizations have been able to see these factors as important and have attempted to measure these factors and their effect on the organization. Therefore, as Sutermeister (1969) stated, while organizations have made greater use of work measurements and measurements of end results in evaluating managers, to include greater use of incentive pay in rewarding them (supervisors), only a few organizations have regularly used measurements that deal directly with the human assets of the organization--for example, measurements that measure loyalty, motivation, confidence, and trust. The author concluded that job performance was affected by ability and motivation and not only by how simply, how hard, or how well people worked, to include the technical factors involved.

As has been determined, the term "motivate" is one that implies action that is needed to satisfy a particular set of needs. This satisfaction enables an individual and the organization to achieve a desired goal or a desired reward. Beach (1980) wrote that intrinsic motivation is that which occurred while a person was performing an activity in which he gained satisfaction for engaging in that activity itself. This was considered an internal reward and was directly part of the job. Extrinsic motivators were the incentives or rewards that a person could enjoy after the work had been completed. This was related to the job environment and could be considered an external reward.

Hinrichs (1974) stated that Maslow's theory of basic needs suggested that the most fundamental needs of all organisms were

physiological, those being the need for food, drink, and so on. When these needs are unsatisfied, they are the primary needs to which the organism caters. Safety needs are the next level in the hierarchy. Therefore, the author believed that the next level, belonging or social needs, usually did not play a significant role in determining behavior. Above the belonging needs was esteem need, that being the need for self-esteem and for esteem in the eyes of others. The highest need in the hierarchy was the need for self-actualization or for realizing one's own potential.

As related to the motivation and aspiration of the Mexican-American, Litzinger (1973) wrote that the lack of motivation was a symptom that had complicated causes and was one that was difficult to remedy. For example, urban Mexican-American students showed a desire to succeed within the social system of the school. Likewise, rural Mexican-Americans did not show any significant differences between their aspirations and the aspirations of their Anglo counterparts (students). This research led the author to conclude that gaps in accomplishment or aspirations widened as time progressed due to the belief that Mexican-Americans had learned not to expect too much out of life or out of their social system.

Saville-Troike (1978) found that most students, by the age of six, had already internalized the basic values and beliefs of their native culture, had learned their appropriate roles within that culture, and had established their procedure for continued socialization. This author stated that individuals who learned to

learn in one culture and then had to learn in the modality of another culture experienced a degree of cultural confusion and dislocation. Therefore, to be effective, trainers must understand the differences in the trainees' learning styles and must have a greater tolerance for these modalities and cultural differences.

In normal economic times, survival needs are easily met, and when this need is satisfied, many of the employee's concerns within an organization are turned to the satisfaction of the emotional and social needs. As has been stated, Maslow classified the needs of employees (people) in five categories: (a) physiological; (b) safety, stability, and security; (c) belongingness and love; (d) self-esteem; and (e) self-actualization. Therefore, an essential task of managers is to arrange organizational conditions and methods of operations in such a fashion that it ensures that employees can achieve their personal goals and satisfy their needs. This need satisfaction can be accomplished at the same time the organization is directing its efforts toward organizational objectives and behavior. This becomes important since employees will think well of the organizational leaders who help them satisfy their needs and assist them (employees) in achieving their goals.

In his own study, Herzberg (in "One More Time," 1987) found that achievement in the workplace was the main factor that contributed to job satisfaction. He wrote that in order to increase successful job enrichment, managers could use "vertical loading" in an attempt to continue motivating the employees to aspire to higher goals.

As stated earlier in the review of literature, persons who repeatedly have failed to reach their goals must lower their goals or change their methods. Those who have failed to do this modification have experienced deep frustrations. As previously stated, possible dissatisfactions or frustrations with one's job may result from several factors, including the nature of the work itself, dissatisfaction with one's peers, job insecurity, or the lack of upward mobility and organizational status. However, as Hepner (1966) found, poor morale within the organization resulted when organizations departed from ethical business standards. For example, employee attitudes were seriously affected when the organization allowed poor-quality goods to get into the market. In short, irrespective of wages and working conditions, the work group derived need satisfaction from the efficiency of the organization and the performance of the tasks for which it had been organized. By the same token, an inefficient organization or an organization with poor performance diminished the chances of employee satisfaction. This same author stated that when an employee or the informal organization was dissatisfied, the employee reacted by becoming passive, complaining, seeking relief or assistance from a union, or committed sabotage. However, whenever possible, the employees were more likely to withdraw and alienate themselves from the dissatisfying situation.

Briefly stated, employees have their likes and dislikes, can be motivated, appreciate being appreciated, and will perform effectively if management is competent and if it keeps its lines of communication open. Management, in an effort to produce desired organizational

behavior, must attempt to get the individual and the informal groups to work toward organizational goals or toward the target of increased productivity and efficiency. When employees are not properly motivated, a work group or organization is created that maintains low production standards, resists change, expresses hostility toward supervision and/or other groups, refuses to accept or train newcomers, and demands rigid conformity from its membership. In these cases, whenever new employees came into the organization and remained untrained by the organization, along with their seeing or hearing others complaining about and vacating their jobs, these new employees accepted the order of the day and also started to complain. Thus, the probable factor that attracted them to the job, that being the wage rate, readily became obsolete. When this occurred, the need for new satisfying factors surfaced in the minds of new employees. This happened especially when they saw that other needs had gone unmet by their peers. Therefore, positive organizational behavior resulted from a satisfied, motivated, and skilled workforce that worked within a developed and healthy organizational structure. This structure, in turn, was led by a competent administration and administrative staff.

CHAPTER III

RESEARCH METHODOLOGY

Introduction

The researcher's purpose in this study was to determine possible relationships between the educational attainment of supervisors and their perceptions toward the organization, career needs, and training needs. This chapter contains a description of the population sampled, the research methodology, and the statistical treatment of the data.

Population of the Study

The target population was Mexican-American supervisors who were classified as supervisors at two bus-manufacturing facilities in South Texas. The two manufacturing facilities were (a) Eagle International, Inc., located in Brownsville, Texas, and (b) Trailways Manufacturing, Inc., located in Harlingen, Texas. The distance between the plants is approximately 30 miles; thus, they are in close proximity to each other. Eagle International's production workforce is represented by Local 2175, United Auto Workers (UAW). Trailways Manufacturing's workforce does not have a bargaining unit (union-free status). Due to the makeup characteristics of the area (known as the Rio Grande Valley), both facilities employ primarily

Mexican-Americans within the hourly/production workforce. First-line supervisors are primarily of Mexican-American descent.

At the time of this research, the total employment for both manufacturing facilities averaged 700 employees. In both plants there was a total of 29 first-line production supervisors, 2 quality control supervisors, and 5 material handler supervisors. From the total supervisory workforce in these three classifications, 34 were Mexican-Americans. One supervisor was on an extended medical leave, and four supervisors who were willing to participate were unable to do so because of schedule conflicts. With these deductions, from the 29 supervisors left to participate, two were unable to complete the research project (one could not fully conceptualize the nature of the survey's written statements, and the other expressed no interest in completing his research); the other two supervisors were unable to participate due to their difficulty with the written English language. They spoke an acceptable degree of English, but they were unable to understand its written form. Thus, a total of 25 Mexican-American supervisors (which included two female supervisors) participated in and completed this research project. (See Table 1.)

Table 1.--Distribution of participants by department.

Department	Total
Production	20
Materials	4
Quality control	1
Total	25

Of the 25 supervisors, 23 (92%) were male and 2 (8%) were female. The range relative to the number of years the supervisor had worked for the company was from 1 to 11 years of service. The mean number of years with the company was 5.28 years of service. The number of years the participants had worked as a supervisor for the company ranged from one to eight years and averaged 3.64 years as a company supervisor. Of the 25 participants, 11 (44%) had been promoted from within and 14 (56%) had been hired from outside the organization into supervisory positions. The total number of years as a supervisor (within and/or outside the company) varied from 1 to 16 years of experience, with the mean being 8.16 years of supervisory experience. The vast majority of supervisory experience for the population studied had been supervising Mexican-American (Spanish-speaking) employees.

The distribution of participants' ages ranged from 26 to 58 years. Table 2 shows the age distribution of the participants. Two supervisors were under 30 years of age, and one was over 50 years of age.

Table 2.--Distribution of supervisors by age.

	20-29 Years		30-39 Years		40 Years and Above	
	N	%	N	%	N	%
Total	2	8	12	48	11	44
Mean	27.5		34.2		42.4	

In examining the Personal Data Questionnaire completed by each participant and cross-referencing each one with individual personnel folders maintained by the company, it was found that the average yearly base salary for supervisors was $17,400. The total household income for supervisors ranged from $14,000 to $42,000 per year. The mean household income per year was found to be $22,560. Table 3 depicts supervisory yearly salary and household income in frequency and percentage.

Table 3.--Supervisors' yearly salary and yearly household income.

	$10,000-$20,000		$21,000-$30,000		$31,000 +	
	N	%	N	%	N	%
Yearly salary	25	100				
Yearly household income	15	60	6	24	5	16

Additional data obtained from the Personal Data Form and cross-referenced with the personnel folders for each respective participant revealed that seven (28%) of the supervisors were veterans of the United States Armed Forces. Twenty-two (88%) were married, and all 25 claimed dependents. The number of dependents, including the supervisor, was 4.12 dependents per supervisor.

In reviewing the data from the Personal Data Survey, it was noted that the country-of-birth data indicated that nine (36%) of the supervisors were born in Mexico (one from this group was born in

Chile, South America). The number of years this group had resided in the United States since emigrating varied from 7 to 45 years. The mean as it relates to residency for this group within the United States was 17.1 years. Table 4 depicts the above-mentioned data.

Table 4.--Supervisors' age categories, veteran status, marital status, dependents, Mexican birth, and average years of residence in the United States (if foreign born).

Age	No.	Vet.	Married	Avg. Dependents	Mexican Born	Avg. Yrs. in U.S.
20-29	2	0	2	3.50	1	11.0
30-39	11	5	10	4.46	3	18.0
40+	12	2	10	4.42	5	22.4
Total	25	7	22	4.12	9	17.1

Interview Methodology

As previously indicated, the participants were selected from two bus-manufacturing companies in South Texas. After authorization was obtained from the president of the company, contact was made with the director of production. An overview of the study was presented, and consent to proceed with the research was given. Two production managers and the production control manager were contacted. Their assistance and cooperation were solicited and obtained. The scheduling was such that it took four weeks to complete the surveys, scheduling supervisors Monday through Thursday.

At the initial contact with the participants (which averaged five per group), the researcher explained the research and its possible value to the development of training programs, especially in the Rio Grande Valley. It was emphasized that the research did not belong to the company, that it was in fact a project for a doctoral dissertation, and that the end results would be published in a dissertation. The participants' anonymity was stressed, as was the fact that participation in the project was completely voluntary.

Instructions and clarifications were given in both English and in Spanish as it became apparent that the command of written English varied among the participants. All participants were instructed to ask the researcher questions if they did not understand the statements in the surveys. The sessions were conducted in a company conference room.

As the sessions began, each participant was asked to read and sign the consent form. The researcher explained the intent of the form. Each participant was then asked to complete the Personal Data Form in order that additional information could be obtained and possible relationships investigated between the information on the form and the survey responses. (See Appendix for copy of Consent Form and the Personal Data Form.) All explanations and instructions were given in English and in Spanish.

When the first questionnaire (Career Development Profile) was presented, instructions on how to complete it and what it was designed to measure were communicated in both languages. As each participant completed the first instrument, the researcher would then

provide each individual participant with the intent of the next questionnaire and directions on how to complete it.

Educational data were also extracted from the Personal Data Form. All participants were asked to state the number of years of formal education received (elementary/high school, college, trade/vocational) and the country where the education had been obtained. Upon review of the data, the statistics in this category were tabulated, with the trade/vocational positive responses being listed within the college nongraduate category. It should be noted that of the 25 participants, five (20%) had received some technical/vocational education. The results are shown in Table 5.

Table 5.--Educational background of supervisors.

Educational Status	N	%
High school nongraduate	4	16
High school graduate	7	28
College nongraduate	12	48
College graduate	2	8

Performance evaluations for all the supervisors were secured from their individual personnel folders. Twenty-two evaluations were available and had been given to the employees within their last year of employment. Three supervisors had never been evaluated since they had not yet reached their annual date of hire (performance

evaluations once a year). The results of performance evaluations are noted in Table 6.

The performance evaluation rating was based on a 1-9 scale, with 1 being the lowest and 9 being the highest. The use of performance evaluations was viewed as pertinent by the researcher because as Wesley and Latham (1981) stated, performance-appraisal measures affect training and development in four basic ways: (a) as a means of determining the training needs for various organizational units, (b) as a basis for evaluating the worth of training programs, (c) as a means of identifying employee weaknesses that might be alleviated through additional formal training and development, and (d) as a means of improving the proficiency of employees by providing each of them with feedback regarding their performance during periodic appraisal interviews with their supervisors.

As can be noted, 14 different factors were rated by the performance-appraisal form used by the company. This form was completed on a yearly basis by the general foreman and reviewed with the supervisor at the evaluation session. The analysis of the findings indicated that the supervisor's knowledge of his/her job responsibility was the highest-rated factor (average of 5.9), whereas development of others was rated lowest (average of 5.0).

Quality of work, analytical ability, judgment, planning, organization, and interpersonal skills were at or below the 5.3 average (all supervisors). The overall average performance rating for the supervisors was 5.5.

Table 6.--Performance evaluations: average of those rated in 14 specific categories on a 1-9 scale, with 1 being lowest and 9 being highest.

Category	Current Rating
Knowledge of job and responsibilities	5.9
Work output	5.7
Quality of work	5.1
Analytical ability and judgment	5.3
Initiative	5.6
Dependability	5.6
Cooperation	5.5
Willingness to express ideas	5.7
Ability to communicate effectively	5.5
Leadership ability	5.4
Development of others	5.0
Planning and organization	5.3
Judgment	5.4
Interpersonal relations	5.3
Total	5.5

As it relates to the use of performance appraisals in the work organization, Patten (1977) stated that performance appraisals are used in answering four recurring questions: What should the employee's reward or payoff be? Where does the individual best fit in the job structure of the organization? How can the employee be helped to perform better? How well are the various programs of the organization working?

Along with the above participant demographics retrieved through the use of the Personal Data Questionnaire and the personnel folders, two psychological tests were used to determine (a) intelligence quotient (IQ), (b) short-term memory, and (c) learning modality. The first test was the Standard Progressive Matrices, developed in Great

Britain by J. C. Raven. Anastasi (1982) wrote that this instrument was designed to measure general intelligence factor (g). Primarily requiring the relationship among abstract items, this test is regarded by most British psychologists as the best available measure of the general intelligence factor (g). This instrument is a well-accepted nonverbal general intelligence instrument. The second test administered to the participants was the Visual-Aural Digit Span. This instrument was designed to measure short-term memory, and from this measure possibly to arrive at individual learning modalities.

In reviewing the RAVENS results, it was found that five supervisors tested with an IQ range between 80 and 90, six supervisors tested between 95 and 105, nine placed between 106 and 115, and five placed between 116 and 130. The overall mean IQ range for the supervisors as a group was 101.24. The data in Table 7 depict the results of the RAVENS by using actual individual scores and the number of supervisor(s) achieving that score.

It is important to note that Anastasi (1982) stated that IQ is not a fixed variable and is not unchanging. It is amenable to modification by environmental interventions. Culture is also a variable that has an effect on testing results. For example, Anastasi stated that in some cultures the RAVENS reflects the amount of educational training to which an examinee has been exposed. It is common knowledge that different intelligence tests do, in fact, differ in content and as such do affect score interpretation. Intelligence should be regarded as a descriptive rather than an

explanatory concept. An IQ is an expression of an individual's ability level at a given time, in relation to the age norms. No intelligence test can indicate the reasons for one's performance (Anastasi, 1982).

Table 7.--Results of RAVENS (IQ) test.

Score	Frequency	IQ Range	No. of Employees
86	1	80-90	5
90	2	95-105	6
94	2	106-115	9
96	1	116-130	5
97	1		
99	1	N =	25
100	1		
103	1		
104	1		
106	1		
108	2		
110	2		
113	2		
114	2		
116	1		
119	2		
122	1		
125	1		
Mean 101.24	N = 25		

The Visual-Aural Digit Span (VADS) score spread indicated that the visual-written mode of learning and the visual-oral modality were decidedly the primary learning modes. It is important to note that five supervisors possessed more than one strong learning modality. This suggests that more than one modality can be interpreted as being a primary modality or that the participants could learn with relative

ease through the use of more than one modality. A distribution scale of the modality spread is illustrated in Table 8.

Table 8.--Learning modality via VADS with (1) primary, (2) secondary, (3) third, and (4) last or least desirable modality.

Modality and Sequence of Learning		No. of Respondents
Visual-Written	(1)	23
	(2)	1
	(3)	0
	(4)	0
Visual-Oral	(1)	20
	(2)	3
	(3)	1
	(4)	0
Aural-Written	(1)	10
	(2)	6
	(3)	4
	(4)	4
Aural-Oral	(1)	10
	(2)	6
	(3)	4
	(4)	4

The short-term memory span was also derived from this instrument. As can be noted in Table 9, the two most frequent age equivalencies (short-term memory) were age equivalency 8.0-8.11 and 11.0-11.11, with the former having six (25%) of the participants and the latter having five (20%) of the participants. A weighted average of 13.0 was given to the "above 12 years" category for the purpose of achieving a weighted average.

Table 9.--Short-term memory age equivalency using age-equivalency midpoints.

Age Equivalency	No. of Participants	Weighted Average
7.0- 7.11	1	7.5
8.0- 8.11	6	8.5
9.0- 9.11	3	9.5
10.0-10.11	3	10.5
11.0-11.11	5	11.5
12.0-12.11	3	12.5
Above 12	4	13.0
Total	25	10.62

It should be noted that psychological testing may show age decrements. Several variables that may affect this change are such things as number of years of formal education, accessibility of media/communications, nutrition, and other such factors. These and other variables do, in fact, influence psychological testing and indirectly affect the individual's development.

Instruments

Aside from the Personal Data Form, each participant was asked to complete seven instruments that were developed by Management Research Systems and that are used by industry as organizational questionnaires or surveys.

Due to the use of the questionnaires, the researcher was able to infer, even though subjectively, the extent of English reading ability (or inability, as was also the case), attitudes toward the completion of questionnaires (varied), and the overall attitude

toward the project (was well received and all exhibited very good cooperation). The participants expressed a deep interest in being made aware of the findings and recommendations of the research since some verbalized that they felt the employer had an obligation to train the supervisors and the employees in general. The instruments used and a brief description of each follows.

Career Development Profile

The Career Development Profile was an instrument that was developed to assist managers in designing career-development programs and to provide participant information regarding career interests. The instrument consists of two separate parts. The first part contains 30 work practices commonly performed by many managers and supervisors. The participants were asked to read the statement (work practice), determine if the statement applied to their job, and mark it accordingly on the instrument. The participants were also instructed to determine whether they preferred more or less of that specific practice and to assess their individual perception of their current level of performance.

The second part of the Career Development Profile contained 30 specific career-needs statements. Each participant was asked to read each statement and determine whether the statement (need) was (1) Not Important, (2) Somewhat Important, (3) Important, or (4) Very Important.

The information collected from the 60 items contained in the instrument was totaled and analyzed quantitatively. Content analysis

was recommended by the publisher of the instrument and was deemed appropriate by the researcher. As Borg and Gall (1971) stated, content analysis can consider not only content frequencies, but also the interrelationship among several content variables, or the relationship between content variables and other variables. Thus, content analysis was used as a structured approach to classifying the large volume of questionnaire data into a manageable and nonsubjective format.

Career Values Scale

The Career Values Scale was designed to assist in measuring career interests and aspirations. This was accomplished by dividing 80 items in the form of 40 pairs of preference alternatives. Ten pairs were assigned to each career value category. The participant was to select one alternative from each pair and then rank order his/her choice (the five most important to the individual, in any order). The four measured categories were (a) work environment preference, (b) work position preference, (c) job growth ambition, and (d) career interpretation. Once again, content analysis was recommended and was selected for data interpretation.

Supervisory Training Needs Analysis

The Supervisory Training Needs Analysis instrument was intended to identify supervisory training/developmental needs. The instrument consisted of 20 sets of conditions that supervisors might have about their own individual supervisory practices, abilities, or skills. Twenty specific categories were covered. They were:

1. Communication With Subordinate
2. Training Employees
3. Motivating Employees
4. Planning and Scheduling
5. Handling Employee Discipline
6. Diagnosing Performance Problems
7. Improving Work Performance
8. Making Work Assignments
9. Communicating With Supervisors
10. Making Decisions
11. Handling Complaints and Grievances
12. Interfacing With Subordinates
13. Interfacing With Peers and Others
14. Managing Time
15. Writing Reports
16. Counseling employees
17. Dealing With Unions
18. Practicing Leadership
19. Improving Department Effectiveness
20. Managing Difficult Situations

A four-point value system was used for scoring purposes, with 4 = Strongly Agree, 3 = Somewhat Agree, 2 = Somewhat Disagree, and 1 = Strongly Disagree. The point values of each alternative were then added within each category. It was predetermined by the instrument that a sum score of six or more points in each category suggested a possible training need.

It should be noted that the Likert-type scale was used. As Likert (1967) stated, a "1" is assigned to the response of one extreme (positive or negative) and a "5" is assigned to the response of the other extreme for each statement when using the Likert method. Here a "1" is assigned to one extreme response (positive or negative) and a "4" is assigned to the other extreme response.

Training Needs Analysis Survey

The Training Needs Analysis Survey is an instrument that assists in identifying training and developmental needs among supervisory personnel. This instrument covers 12 skill areas that were viewed as essential for successful supervisory performance. These were:

1. Leadership
2. Training Needs
3. Human Relations
4. Motivation
5. Communication
6. Discipline and Control
7. Performance Management
8. Counseling
9. Problem Solving/Decision Making
10. Planning and Organizing
11. Work Assignment
12. Time Management

Each participant was asked to read the supervisory and managerial practices statement, determine its importance to his/her job, and indicate the amount of training he/she felt would be helpful. The "Importance to Job" column was ranked by: 3 = Very Important, 2 = Important, or 1 = Not Important. The "Amount of Training That Would Be Helpful" column was marked/ranked from 5 to 1, with 5 = Very Considerable, 4 = Considerable, 3 = Some Training Needed, 2 = Little Training Needed, and 1 = Very Little Training Needed.

The scoring for this instrument was such that a total score of 32 or more per statement/category was deemed as indicating a possible training need. The category score was determined by multiplying the "Importance to Job" column and the "Amount of Training That Would Be

Helpful" column. Thus, each response was summated to determine the total score of each participant.

Employee Motivation Inventory

The Employee Motivation Inventory was used to determine the motivational needs of the supervisors. The instrument consisted of 40 pairs of alternative needs or goals. There were five categories (each category having eight pairs of alternatives) designed to provide a weighted ranking of perceived needs or goals with respect to Maslow's Hierarchy of Needs.

The five needs that were measured by this instrument were (a) basic/survival needs, (b) security needs, (c) affiliation/social needs, (d) status/ego needs, and (e) self-actualization/fulfillment needs. The scoring was such that the designated need was plotted on a scoring graph. The scores were then plotted on a motivational-needs bar graph.

Participative Climate Diagnosis

The Participative Climate Diagnosis questionnaire was intended to assess the readiness of an organization for employee-participation or employee-involvement programs. It was also intended to obtain employees' perceptions about organizational conditions that affected their own job performance. This instrument consisted of 50 items in 10 different categories: (a) creative climate, (b) communication, (c) productivity consciousness, (d) participate climate, (e) interpersonal climate, (f) goals and standards, (g) motivation, (h) changes, (i) problem solving, and (j) union relations.

The scoring that was recommended with this instrument and that was used was as follows. Point values were assigned to each item (five items per category). It was suggested that a total instrument score of 150 points (which included the union-relations option) or more was conducive to participative programs. A score of 15 points or less per category suggested an organizational unreadiness for employee participation in that given category or dimension. Therefore, this instrument was used to obtain a possible mental reference point as to the participants' attitudes at the time the research was conducted.

Organizational Climate Survey

The Organizational Climate Survey was designed to measure the participants' attitudes and opinions about the organizational environment and their respective jobs. Employees' perceptions were measured in ten organizational categories: (a) communications, (b) cost and performance, (c) equal employment opportunity, (d) growth and advancement, (e) interpersonal relationships, (f) management effectiveness, (g) organization policy, (h) pay and benefits, (i) safety and work conditions, and (j) supervisory effectiveness.

Scoring norms were provided with this instrument for all 50 items. Responses were tabulated by item and category to determine where respondents fell relative to the norm provided by the instrument. A content-analysis approach was used in analyzing the data, as suggested by the instrument developers.

Wexley and Latham (1981) wrote that organization analysis was concerned with examining the organization as a whole. This involved examining its interface with the external environment in which it operated, to include the attainment of its stated objectives, its human resources, and its climate. The primary purpose of an organization analysis, they wrote, was to determine where in the organization training activities should and could be conducted. These same authors went on to state that the organizational environment affected the way managers designed jobs, supervised employees, and made decisions. Accordingly, before concepts of individual freedom could be used, along with concepts of self-realization, satisfaction, and gratifications for the person, an organization had to ask itself or determine what the employees' relationship was to the specific social setting from which they were arriving.

Standard Progressive Matrices

The Standard Progressive Matrices by J. C. Raven (referred to as the RAVENS) was administered to all 25 participants by a State of Texas certified educational diagnostician. This diagnostician also scored and provided the results of the test administration.

Anastasi (1982) provided the following description of this instrument:

> The RAVENS consists of 60 matrices, or designs, from each of which a part has been removed. The examinee chooses the missing insert from six or eight given alternatives. The items are grouped into five series, each containing twelve matrices of increasing difficulty but similar in principle. The earlier series require accuracy of discrimination, the later, more

> difficult series involve analogies, permutation and alteration of pattern, and other logical relations. The test is administered with no time limit and can be given individually or in groups. Very simple oral instructions are required.

As stated earlier, the RAVENS was designed to measure the "g" (general intelligence) factor by mainly requiring the use of relations among abstract items.

Visual-Aural Digit Span (VADS)

The VADS was administered by the same certified diagnostician who administered the RAVENS. This diagnostician also provided the short-term memory span results and the learning modality for each of the 25 participants. A brief description of the VADS was provided by Koppitz (1977). He described the four areas as being:

1. Aural-Oral: Presents digits (numbers) orally and the student repeats them to the examiner. Maximum score is 7. The student gets two trials. The test is stopped after two failures in each digit group.

2. Aural-Written: Presents digits orally and student writes them down. Scores and process same as number one.

3. Visual-Oral: Show digits for 10 seconds. Student says digits after viewing for 10 seconds. Maximum score and procedure same as number one.

4. Visual-Written: Show digits for 10 seconds. Student writes digits after viewing for 10 seconds. Maximum score and procedure same as number one.

Data Analysis

After the research was completed, the data were analyzed through the use of content analysis and frequency distributions of the responses. The data were analyzed by each instrument's respective

category and also as an instrument as a whole. Limited statistical comparisons were made between the given instruments themselves.

The participants were categorized into five categories to determine possible correlations between the categories and the results provided by the instruments. The five categories were: (a) high school nongraduate, (b) high school graduate, (c) some college/vocational education, (d) college graduate, and (e) age. A gender category was not included because only two female supervisors were available and participated in the project.

The dependent variables examined were (a) career development expectations, (b) personal motivational needs, (c) organizational climate, and (d) training needs perception.

Summary

The researcher's purpose in this research design and method of analysis was to determine whether differences in (a) organizational perceptions and (b) training needs existed due to differences in educational levels and age. An attempt was made to determine if there were relationships between the variables involved. A Personal Data Questionnaire was developed to serve as a data-collection instrument to obtain specific individual (participant) data.

The population for the study was 25 Mexican-American supervisors employed by two bus-manufacturing companies. The instruments used for this research focused on four main topics: (a) career aspirations, (b) organizational perceptions, (c) training needs, and

(d) motivational needs. The data were analyzed through the content-analysis approach and frequency distributions.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

This chapter contains a description of the demographic categories obtained from the target population and the results of the seven instruments used in this research, along with the results of the Visual-Aural Digit Span (VADS) and the Standard Progressive Matrices (RAVENS). All participants responded to questions concerning their career interests, training needs, motivational needs, and organizational climate perceptions and participated in taking the VADS and RAVENS. Demographic information was obtained through the use of the Personal Data Form (see Appendix) and their respective personnel folders held by the company. The purpose of the research was to determine if differences existed between educational attainment and organizational perceptions. A content-analysis approach and Pearson correlation statistic were used to analyze the data collected by the questionnaires in order to determine the frequency and statistical distribution of the responses.

The Personal Data Form contained demographic questions to which all 25 participants responded. Among the questions in this questionnaire were items soliciting the educational attainment of each participant, along with the country where such education had

been obtained. To present additional data relative to the participants, Table 10 shows the origin of the education received (country where education took place) by the participants. Some participants had received formal education only in the United States, some had received education only in Mexico, and others had received education in both countries.

Table 10.--Origin of education of participants, by age category.

Age	US Only High School Nongraduate	Education Some/All Mexico	High School Grad/GED	Vocat. US/Mx.		Some College US/Mx.		College Graduate
20-29	0	1	1	0	1	1	0	0
30-39	0	3	11(2-GED)	3	0	6	2	0
40+	2	4	5	1	0	2	2	2
Total	2	8	17	4	1	9	4	2

Some of the participants receiving education only in Mexico (nine formal years of education was considered secondary education, to have included elementary) and not having continued their education to either college or vocational school (college) were treated, for the purpose of this research, as high school nongraduates and are presented as such in all future tables. As is apparent in Table 10, two participants had received their GED (one with education in the United States only and the other with education in both countries). These two individuals were credited by the researcher as having 12 years of formal education and being high school graduates.

Table 11 provides an additional analysis of the educational-attainment level by four distinct categories: (a) high school nongraduate, (b) high school graduate, (c) college nongraduate, and (d) college graduate. As is evident, the majority (56%) of the participants had received at least some college education; two had graduated from a United States college.

Table 11.--Distribution of participants by educational classification.

Category	N	%
High school nongraduate	4	16
High school graduate	7	28
College nongraduate	12	48
College graduate	2	8
Total	25	100

Another analysis is provided in an effort to present the total number of years of formal education received for each age group. Table 12 presents the mean number of years of formal education and the number of participants in the age categories.

In examining the total number of years of formal education and distributing the mean by age categories, it was found that there were only slight differences between the age groups in their respective educational attainment (in years). Both the 20-29 and the 40+ age groups exhibited 12.5 years (mean). The 30-39 year age group indicated a mean of 13.5 years of formal education.

Table 12.--Educational attainment level, mean years of formal education, and age.

Age	N	%	Education (Mean)
20-29	2	8	12.5
30-39	12	48	13.5
40+	11	44	12.5
Total	25	100	Mean = 12.8

Career Development Profile

As indicated in Chapter III, the Career Development Profile consisted of two separate parts, one concerned with the participant's performance level as compared to certain identified work practices (30 items) and the second concerned with certain career and job-related needs. The data obtained from this instrument were analyzed according to the self-identified performance level (1 = lowest; 10 = highest) of each work practice.

Part B consisted of 30 career needs/preferences that also applied to the workplace. Each participant identified on a scale of 1 (not important) to 4 (very important) his/her own preference/need regarding each statement. The means of positive responses (important, very important) were secured and are presented in Table 13.

As can be noted, when the performance levels were categorized by age grouping, the perceived performance level diminished with age (6.6, 6.0, 5.7). The importance (positive responses) to the career need statements also declined with each given age group (.82, .73,

.68). In short, the younger the supervisor, the better the supervisor felt that his/her performance was; the older the supervisor, the less he/she thought of his/her performance level. Accordingly, the younger supervisors felt a need for more satisfaction, whereas the older supervisors responded with less of a career drive.

Table 13.--Career Development Profile: Mean performance (self-identified) ratings regarding 30 work practices and percentage of positive responses to 30 career need statements, by age and education.

	Part A Performance Mean	Part B Positive Response (%)
Age		
20-29	6.6	82
30-39	6.0	73
40+	5.7	68
Average	6.1	74
Education		
High school nongraduate	5.65	74
High school graduate	4.67	72
College nongraduate	6.60	74
College graduate	6.71	54
Average	5.90	69

When performance was analyzed by educational categories, there tended to be an increase of perceived performance given the educational level (5.65, 4.67, 6.60, 6.71). The positive responses

toward career needs when educational categories were examined revealed that the only marked difference in responses dealt with the college graduate category. This group's positive response averaged .54 compared to the other group's mean of .73.

When using education as the categories, the high school nongraduate and graduate groups thought they were performing at a lower level (5.16) than did the college groups (6.65). As stated, the career needs were relatively equal in importance for the high school nongraduates, high school graduates, and the college nongraduates (mean = .73). The sharp decline in career need importance was noticeable in the college graduate category (in which both participants also belonged to the 40+ age group). As stated earlier, the college graduate group responded positively (as important) to only 54% of the career needs statements.

The overall mean for the performance rating (self-identified) relative to the work statements provided by the instrument using education as a category was 5.9. A 68.5% positive response was the mean for the career needs statements.

Table 14 represents the 30 work practices and the performance level of the participants (performance level is the mean of all responses to the given item) relative to each work practice. It is important to note that items identified as being at the lower performance level were work practices not normally performed by the participants, i.e., value-analysis studies, statistical data, and the like. The work practices identified as being in the higher

performance levels were those normally performed by the participants, i.e., make assignments, improve employee performance, and similarly related duties.

Table 14.--Work practices and current performance level by self-identification, with 1 being lowest and 10 highest.

Work Practice	Performance Level
Make work assignments	7.7
Improve employee performance	7.5
Establish goals and objectives	7.2
Determine production requirements	7.2
Prepare operating schedules	6.9
Train new employees	6.8
Correct performance deficiencies	6.8
Analyze problems	6.5
Exchange ideas with associates	6.4
Prepare and submit reports	6.3
Participate in meetings	6.2
Coordinate activities with associates	6.2
Present persuasive verbal reports	6.0
Develop new methods or processes	5.8
Choose among alternatives	5.7
Develop control measures	5.6
Evaluate operational efficiency	5.5
Speak before a group	5.5
Direct subordinate's activities	5.4
Develop project plans	5.3
Analyze technical requirements	5.3
Demonstrate products or services	5.3
Estimate project costs	5.2
Organize project resources	4.7
Prepare and submit proposals	4.7
Conduct value analysis study	4.4
Prepare and submit budgets	4.3
Prepare statistical data	4.1
Analyze financial reports	4.0
Entertain business associates	4.0
Mean	5.75

In Table 15, the 30 career needs and the total number of participants responding as important or very important to the statement and its relationship to their job are presented. A total of 24 individuals responded to this portion of the instrument (one of the participants did not respond to this part of the questionnaire).

Table 15.--Frequency of positive responses (important, very important) to career/job needs by participants (N = 24)

Career/Job Need	N	%
Completing important assignments	24	100
Having control of situations I encounter	23	96
Producing measurable results	23	96
Cooperating with others	23	96
Following instructions	23	96
Following well-defined procedures	22	92
Having responsibility for a difficult project	22	92
Making routine decisions	22	92
Solving difficult work problems	22	92
Being helped by my supervisor	20	83
Having a secure, predictable job	20	83
Doing better work than others	20	83
Minimizing risks	19	79
Not needing to rely on others	18	75
Having a highly structured job	18	75
Having a comfortably paced job	18	75
Directing what others do	18	75
Working with others as an equal	18	75
Developing new friendships	17	71
Chance to be the boss	15	63
Having others like me	14	58
Being left alone to do my job	14	58
Being accepted by others	14	58
Working with people I like	14	58
Being more clever than others	13	54
Having a position of authority over others	12	50
Not working under pressure	10	42
Being considered powerful and influential	9	38
Dealing with things rather than people	8	33
Not being bothered by others	5	21

Upon analyzing the data provided by this portion of the instrument, it was found that the five most important career/job preferences were (a) completing job assignments, (b) having control of situations encountered, (c) producing measurable results, (d) cooperating with others, and (e) following instructions. The five least important were (a) not being bothered by others, (b) dealing with things rather than people, (c) being considered powerful and influential, (d) not working under pressure, and (e) having a position of authority over others. In analyzing these data, it was found that 26 (87%) of the preferences were positive (viewed as important or very important) and four (13%) were negative or viewed as not important.

Career Values Scale

The Career Values Scale was used to measure the career interests of the 25 participants. In Table 16 are presented the data for which this instrument tested. There were 40 preference alternatives; the highest frequency responses (top five preferences) are shown in Table 16. When one ranking number appears more than once, it signifies an equal preference based on frequency responses.

In summary, the participants preferred having a complex challenging job, working for a large company, in a responsible leadership/supervisory role, and one that afforded them the opportunity to learn new skills with some organizational interaction. As can be noted, none of the responses selected had to do with ego/ status needs.

Table 16.--Career values preferences, in order of preference (1 = first preference, 2 = second, 3 = third, 4 = fourth, 5 = fifth). (N = 25)

Category	Priority	N
WORK ENVIRONMENT PREFERENCE: I prefer to:		
Have a complex, challenging job	1	22
Work for a large company	2	21
Have a high-risk/high-reward job	3	17
Work for a competent, demanding supervisor	3	17
Work for a well-established, stable company	5	16
CAREER INTROSPECTION: Thus far in my career:		
My work has been interesting	1	24
I have enjoyed considerable job responsibility	2	22
My job has been reasonably prestigious	2	22
I have a real sense of accomplishment	4	18
My job has fulfilled many of my personal needs	4	18
POSITION PREFERENCE: I prefer a job that:		
Involves leadership responsibility	1	25
Requires considerable contact with people	2	24
Is technical in nature	3	21
Involves making frequent, important decisions	3	21
Allows me to use my own judgment and initiative	5	20
GROWTH AMBITION: I prefer a job that:		
Gives me a chance to learn new skills	1	25
Involves supervision and management	1	25
Makes full use of my skills/abilities	3	23
Provides plenty of time for recreation and/or family activities	3	23
Will increase my responsibilities	5	21

The Supervisory Training Needs Analysis and the Training Needs Analysis Survey

The Supervisory Training Needs Analysis and the Training Needs Analysis Survey were used to assist in identifying training and

developmental needs and/or the perception of needs among the supervisory personnel participating in the research. Inasmuch as separate tables are provided for each instrument using age categories and educational-attainment categories, the researcher believed that the usefulness of the data could be obtained only by exploring the responses of the total number of participants as they related to the categories within each instrument.

Table 17 represents the Supervisory Training Needs Analysis results by age categories. The dimensions with the highest training need were in (a) training employees, (b) diagnosing performance problems, and (c) managing time. This same table illustrates what the two top-priority training needs were, presented by age category. When more than two dimensions are cited, an equal preference response was indicated.

Table 17.--Dimensions of identified training need in order of preference, by age categories.

Age	Dimensions in Which Training Is Required (Mean)	Top Two Dimensions in Which Training Is Required
20-29	17	Training Employees Communication with Subordinates
30-39	8	Diagnosing Performance Problems Managing Time
40+	10	Diagnosing Performance Problems Managing Time Training Employees

The mean number of dimensions identified (when using age as the category) for training needs was 12 out of the possible 20 dimensions. The three dimensions were (a) diagnosing performance problems, (b) training employees, and (c) managing time. Both the 30-39 age group and the 40+ age group identified as their training priorities (a) diagnosing performance problems and (b) managing time. It was also evident that the 20-29 year age group identified the most dimensions of training needed (17 dimensions).

Table 18 shows the distribution of the training needs, by educational-attainment categories. The same instrument was used as was used in Table 17.

Table 18.--Dimensions in which supervisors need training, in order of preference, by educational categories.

Education	Dimensions in Which Training is Required (Mean)	Dimensions Requiring the Most Training
High school nongraduate	10	Training Employees
High school graduate	10	Managing Time Writing Reports
College nongraduate	9	Diagnosing Performance Problems Communication with Superiors Writing Reports
College graduate	6	Motivating Employees Improving Work Performance

The mean for the dimensions identified in which training was needed was 8.75 for the total of 20 dimensions. The only dimension identified by the participants in two of the categories was Writing Reports. From the data presented, it appeared that the dimensions identified by the supervisors as possible supervisory training needs diminished with an increase in education. The high school nongraduates and the high school graduates identified 10 out of 20 dimensions as being indicative of their training needs. The college nongraduates and college graduates reported nine and six dimensions, respectively, as their specific training needs.

Table 19 identifies all of the different dimensions measured by the Supervisory Training Needs Analysis instrument. A score of six or more in each dimension suggested a possible training need. Twenty dimensions were measured by the instrument. Eight main dimensions or 40% of those measured were identified as dimensions in which the supervisors believed training was required. These dimensions were (a) diagnosing performance problems, (b) improving work performance, (c) interfacing with subordinates, (d) interfacing with peers and others, (e) managing time, (f) writing reports, (g) dealing with union, and (h) improving departmental effectiveness.

Table 19.--Supervisory training needs and mean score for each dimension (a score of 6 or more signifies a need for training in the dimension).

Dimension	Score
Diagnosing Performance Problems	6
Improving Work Performance	6
Interfacing With Subordinates	6
Interfacing With Peers and Others	6
Managing Time	6
Writing Reports	6
Dealing With Union	6
Improving Department Effectiveness	6
Communication With Subordinates	5
Training Employees	5
Planning and Scheduling	5
Handling Complaints and Grievances	5
Practicing Leadership	5
Managing Difficult Situations	5
Motivating Employees	4
Handling Employee Discipline	4
Making Work Assignments	4
Communicating With Superiors	4
Making Decisions	4
Counseling Employees	4
Number of categories in which training is needed = 8	

In using the Training Needs Analysis Survey (TNAS), 12 dimensions were measured. As in the STNA instrument, a distribution is provided in the following tables by both age and education. A total instrument result is presented in Table 20. The instrument designers recommended a content-analysis approach to data interpretation.

Table 20.--Training Needs Analysis Survey by need category.

Category	Number of Supervisors Requiring Training in Category (Self-Identified)
Leadership	16
Training	15
Human Relations	12
Performance Management	12
Motivation	11
Communication	11
Work Assignments	11
Discipline and Control	10
Planning and Organizing	10
Problem Solving/Decision Making	9
Time Management	9
Counseling	8

In Table 21, the data presented identify the mean number of dimensions that the supervisors felt best addressed their training needs. The table also depicts the two dimensions each group identified as their priority needs. There was an increase in the total number of identified dimensions requiring training as age increased. That is, the 20-29 age group selected two dimensions, whereas the 40+ group selected eight dimensions. A mean of five dimensions identified by the participants resulted from the use of age as the category.

In Table 22, the distributions of these dimensions were identified when using education as the category for analysis. The mean number identified by using this method was six, or one additional dimension when compared to the use of age as the category. In Table 22, the ranking of priority dimensions was done by using

Table 21.--Training Needs Analysis Survey: priority dimensions requiring training, by age.

Age	Total Dimensions Identified (Mean)	Priority Dimension
20-29	2	1. Training 2. Communication
30-39	4	1. Leadership 2. Training, Human Relations, Problem Solving/Decision Making, Planning and Organizing, Work Assignments
40+	8	1. Training 2. Performance Management
Mean =	5	

Table 22.--Distribution of dimensions in which training is required, in order of preference, by educational level.

Education	Dimensions in Which Training is Required (Mean)	Dimensions Requiring the Most Training
High school nongraduate	6	1. Training 2. Motivation
High school graduate	4	1. Human Relations 2. Work Assignments
College nongraduate	5	1. Training 2. Leadership 2. Communication 2. Planning/Organizing
College graduate	9	1. Performance Measurement 2. Human Relations

the number 1 for the first priority and 2 for the second priority. Where the same number appears more than once, it signifies an equal preference.

As previously stated, the mean number of dimensions identified in which training was viewed as required was 6 out of the 12 dimensions. The dimensions found in two or more of the educational categories as requiring some training were (a) training, (b) human relations, and (c) communications. Table 23 shows the dimensions measured by the instrument, a brief description, and the frequency with which respondents viewed each dimension as a possible training need.

Table 23.--Training Needs Analysis Survey response results, dimension measured, frequency of need, and percentage of participants requiring training.

Dimension	N	%	Description of Dimension
Leadership	16	64	General leadership training/styles
Training	15	60	Training subordinates
Human Relations	12	48	Interaction with subordinates
Performance Mgt.	12	48	Determining reasons for performance
Motivation	11	44	Motivating employees
Communication	11	44	Verbal and written communications
Work Assignments	11	44	Issuing work orders effectively
Discipline/Control	10	40	Administering discipline/control
Planning/Organizing	10	40	Organizing manpower/materials
Problem Solving/ Decision Making	9	36	Using effective techniques
Time Management	9	36	Work follow-up and planning
Counseling	8	32	Counseling employees

As shown in Table 23, the four dimensions identified as needing the most training were (a) leadership training, (b) training employees, (c) human relations, and (d) performance-management methods for measuring and controlling employee performance. The lowest training needs, through the use of this instrument, were in the areas of (a) counseling, (b) problem solving/decision making, (c) time management, and (d) discipline and control.

The two instruments used to measure training needs (STNA and TNAS) highlighted several common areas in which participants identified a need for training. These training needs were in such areas as (a) leadership training, (b) interfacing with others, (c) measuring and increasing organizational effectiveness/efficiency, and (d) training subordinates. When using age as the category, training appeared as one of the needs, as did performance and human-relations activities. When education was the common variable, performance measurement, leadership, and supervisory skills were identified as areas in which the supervisors required training, i.e., motivating employees, communicating with employees, and diagnosing performance problems.

Employee Motivation Inventory

The Employee Motivation Inventory, based on Maslow's Hierarchy of Needs, was used to determine the motivational needs of the participants. Maslow identified five needs that are inherent to individuals: (a) basic/survival needs, (b) security needs, (c) affiliation and social needs, (d) status/ego needs, and (e)

self-actualization/fulfillment needs. Table 24 shows a needs distribution by age. As noted by the results of the instrument, the self-actualization/fulfillment need was consistently highest for all age categories. The need that elicited the least of their concern (as measured) was the status/ego need.

Table 24.--Percentage of motivational need, by age category.

Motivational Need	Age 20-29 (%)	Age 30-39 (%)	Age 40+ (%)
Basic/survival	38	43	44
Security	46	56	50
Affiliation/social	18	38	44
Status/ego	6	25	31
Self-actualization	94	81	81

Table 25 illustrates the employee motivational needs distributed on the basis of the educational categories. The self-actualization need was again the most prominent need in all categories. As was the case when the motivational needs were categorized by age, the primary need identified by using education was self-actualization, and the lowest need was the status/ego need. Inasmuch as the basic/survival need fluctuated slightly among the different educational categories (high school graduates were more concerned with basic/survival need than were high school nongraduates), this need was identified as being one of the lowest needs of the participants.

Table 25.--Percentage of motivational need, by educational category.

Motivational Need	High School Nongraduate (%)	High School Graduate (%)	College Nongraduate (%)	College Graduate (%)
Basic/survival	31	50	38	38
Security	56	50	50	56
Affiliation/social	56	31	44	38
Status/ego	25	25	25	38
Self-actualization	81	81	81	88

Upon analyzing all of the participants' responses to the needs categories, Table 26 was compiled to present a summary of the distribution of the needs. Through the summation of all supervisory/participant needs, the self-actualization need maintained its high status (81%); that is, it remained the dominant need requiring fulfillment. The next need, in descending order, was security (56%), followed by the affiliation/social need (44%). The two least important needs were basic/survival (38%) and the status/ego need (25%).

Table 26.--Motivational needs by percentage of need, all participants.

Motivational Need	Percent of Need
Basic/survival	38
Security	56
Affiliation/social	44
Status/ego	25
Self-actualization	81

Maslow stated that most members of our society who are normal are partially satisfied and partially unsatisfied in all of the basic needs. He described the hierarchy in terms of decreasing percentages of satisfaction as an individual moves upward on the hierarchy of needs. Wexley and Yukl (1984) wrote that Maslow had postulated that the expected relationship among the five need categories did not necessarily hold true for all individuals. These authors indicated that there are individuals who have accepted the deprivation of lower-level needs in the interest of satisfying the higher-level needs.

When the data were analyzed using the Pearson correlation statistic, it was found that there was no significant correlation between the different needs and age or education. Table 27 depicts the findings by age, and Table 28 presents the data by education.

Table 27.--Correlation of age and hierarchy of needs, using Pearson correlation coefficients.

	Survival	Security	Social	Ego	Self-Actualization
Age	.881	.367	.598	.741	.658

Table 28.--Correlation of education and hierarchy of needs, using Pearson correlation coefficients.

	Survival	Security	Social	Ego	Self-Actualization
Education	.273	.660	.334	.318	.019

Participative Climate Diagnosis

The Participative Climate Diagnosis instrument was used to measure the supervisors' perceptions of the organizational climate. A score of 150 or more was provided by the instrument as the norm to determine positive credibility toward the organization. A total instrument score of less than 150 signified a negative perception toward the company as it related to participatory management. Table 29 shows the mean participative scores, using age as the category for distribution.

Table 29.--Participative climate distribution by age categories.

Age	Participative Instrument Score (Mean)	N
20-29	132	2
30-39	136	12
40+	125	11
Mean	131	25

Participants in all of the age categories perceived the organization to lack credibility. The 40+ age group perceived the greatest lack of organizational credibility.

Table 30 depicts the participative climate of the organization using the educational-attainment categories as the vehicle for distribution.

Table 30.--Participative climate distribution by educational categories.

Educational Category	Participative Instrument Score (Mean)	N
High school nongraduate	132	4
High school graduate	133	7
College nongraduate	130	12
College graduate	121	2
Total	129	25

In analyzing the participative organizational climate using education as the category for distribution, it was found that respondents in all educational categories perceived a lack of organizational credibility as it related to the willingness of the organization to allow them to participate in decision making. The data indicated that those with a college education viewed the organization as being less ready to accept participation than did those supervisors without a college education. However, using percentage figures, all supervisors at all educational levels and/or age categories perceived that the organization was not ready and/or

was unwilling to allow them participation in the decision-making process.

Table 31 presents the dimensions tested with the Participative Climate Diagnosis instrument and presents the summarized mean scores by individual dimension. A dimension score of 15 or less signified that a lack of credibility existed toward the organization in reference to the specific dimension tested.

Table 31.--Participative climate perceptions of participants.

Dimension	Participant Score (Mean)	Description of Content Measured
Creative Climate	13.8	Organizational readiness to accept new ideas
Communication	13.7	Honesty/sincerity of organizational communications
Productivity Consciousness	14.2	Organizational cost consciousness
Participative Climate	11.6	Organizational readiness for employee participation
Interpersonal Relations	13.0	Organizational relationships
Goals and Standards	12.8	Realism of goals & standards
Motivation	13.9	Organizational rewards
Change	13.8	Management attitudes toward organizational change
Problem Solving	12.4	Organizational problem-solving ability
Union Relations	12.6	Relationship with union

Based on the results shown in Table 31, the participative climate and the organization's ability to solve its problems were the two items identified in which the participants lacked the most confidence in the organization. Through the use of this instrument, all dimensions measured were perceived as lacking credibility.

Organizational Climate Survey

The Organizational Climate Survey was used to measure the participants' perceptions of the organizational climate in various areas. Table 32 depicts the organizational climate by measuring the participants' attitudes and opinions about their organizational environment and their respective jobs. The instrument used provided a total instrument norm of 67%; that is, 67% of those measured by the instrument (in other companies) responded favorably/positively to their organization. Item norms were also provided by the instrument and were used by the researcher to determine participant dimension norms. Table 32 illustrates the instrument norms and the participant norms relative to the company, by age category.

Table 32.--Attitude toward company, by age.

Age	N	Participant Norm (%)	Instrument Norm (%)	Variance
20-29	2	79	67	+12
30-39	12	71	67	+ 4
40+	11	65	67	- 2
Total	25	65	67	+ 5

The data obtained through the instrument indicated that the supervisors felt a positive attitude toward the organization. However, as can be seen in Table 32, there was a decline in positive attitude toward the organization as age increased. That is, there was a 79% positive outlook in the 20-29 age category compared with a 65% positive outlook in the 40+ age category. The overall variances between the instrument norms and the participant norms in essence reflected the same analysis.

Table 33 reflects the results of the instrument when the educational-attainment categories were used.

Table 33.--Attitude toward company, by educational attainment.

Education	N	Participant Norm (%)	Instrument Norm (%)	Variance
High school nongraduate	4	79	67	+12
High school graduate	7	67	67	0
College nongraduate	12	74	67	+ 7
College graduate	2	58	67	- 9
Total	25	70	67	+ 2

Inasmuch as some educational categories indicated a positive attitude toward the organization, the group with the lowest (negative) attitude was the college graduates. Those with the highest attitude toward the organizational climate were the high school nongraduates.

Table 34 reflects the perceptions of all 25 participants toward the organizational climate by the specific dimension measured.

Table 34.--Perceptions of organizational climate by dimensions measured, participant response norm, variance, and dimension definitions.

Dimension	Participant Norm (%)	Instrument Norm (%)	Variance	Dimension Definition
Communication	66	67	- 1	Attitude toward organizational communication & information
Cost/performance consciousness	66	76	-10	Perception of company attitude toward product cost
EEO/Discrimination	49	77	-28	Relationship between organization (negative indicates less perceived discrimination than norm)
Growth/Advancement	66	60	+ 6	Attitude toward promotion from within/new employees
Interpersonal Relations	68	65	+ 3	Attitude between management & company employees
Management Effectiveness	70	67	+ 3	Confidence toward higher management decisions and effectiveness
Organizational Policy	87	71	+16	Attitude toward work rules
Pay & Benefits	61	53	+ 8	Attitude toward compensation
Safety/Work	67	59	+ 8	Safety of the workplace
Supervisory Effectiveness	84	72	+12	Effectiveness of company supervisors
Total	68	67	+ 1	

In an analysis of Table 34, it was found that the EEO category signified that the participants did not view discrimination as a problem (28 points below the norm provided by the instrument). It is important to note that some of the respondents, when asked about their response as signifying that discrimination was not significant, mentioned that they were aware that there was discrimination but that they had "not personally seen it." As one of the participants stated, "We are looking at personnel processes from the bottom up, while you are looking at these processes from the top down."

The participants' responses also indicated that the organization was viewed as not being cost and performance conscious. The data further indicated that the participants were familiar with the company policies and that their individual supervisors (general foremen) were credible and effective in their supervisory skills. It should also be noted that in using the instrument norms for comparison purposes, the supervisors had a healthy and positive attitude toward the organization.

Table 35 illustrates the ten categories measured by the instrument. Each category consisted of five statements (items) relative to the category being measured. The number of items in each category that were above, below, and the same as the instrument norm are presented.

As shown in Table 35, the participants had positive responses (above instrument norm) for such areas as supervisory effectiveness, pay and benefits, organizational policy, managerial effectiveness, growth/advancement, relationships, and safety conditions. The EEO

category, by scoring below the norm, indicated that the supervisors believed there was less discrimination in the company than was generally felt by other supervisors in other companies (instrument norm). Likewise, the supervisors' responses indicated that they felt the company was less competent and/or perhaps less interested in the areas of cost performance and overall communications.

Table 35.--Organizational climate, by category (five items each), by frequency of variance of the items from instrument norm.

Category	Items Above Instrument Norm	Items Below Instrument Norm	Same as Instrument Norm
Communication	2	3	0
Cost Performance	1	4	0
EEO	0	5	0
Growth/Advancement	4	0	1
Interpersonal Relations	3	1	1
Management Effectiveness	4	1	0
Organizational Policy	4	0	1
Pay and Benefits	4	1	0
Safety/Work Conditions	3	2	0
Supervisory Effectiveness	5	0	0

In summary, the use of the Organizational Climate Survey provided the researcher with data that indicated that the participants viewed their organization as others viewed theirs, i.e., instrument norms. The difference was +1; that is, the instrument norm was 67% and the research (participant) norm was 68%.

Visual-Aural Digit Span (VADS) and Standard Progressive Matrices (RAVENS)

The VADS and the RAVENS were administered to all the participants in this research. The testing was conducted by a State of Texas certified educational diagnostician, and the results of the testing were interpreted by the same individual. Table 36 shows participant responses relative to the VADS and RAVENS using the age category as the distribution element. These data indicate that the VADS score decreased with age category. The RAVENS results remained constant in all age categories.

Table 36.--VADS and RAVENS distribution relative to age.

Age	VADS (Mean)	RAVENS (Mean)
20-29	11.0-11.11	105
30-39	10.7-10.7	107
40+	9.7- 9.9	105

Table 37 illustrates participant results relative to the VADS and RAVENS, when educational attainment was the category. There was a progressive increase in VADS results relative to IQ results. The college-graduate category consisted of two individuals; one obtained a RAVENS result of 116 and the other 99. One obtained upwards of a 12 in age equivalency in the VADS, whereas the other achieved an 8.6-8.11. In essence, this table signifies that as education increases, the comprehension level also increases, as does the IQ.

Table 37.--Educational attainment relative to VADS and RAVENS.

Educational Category	VADS (Mean)	RAVENS (Mean)	N
High school nongraduate	8.6- 9.9	99	4
High school graduate	9.8- 9.8	98	7
College nongraduate	11.0-11.11	113	12
College graduate	10.8-10.8	108	2

Table 38 presents the total years of formal educational attainment, VADS results, and RAVENS results (mean). There was a progressive increase in the VADS and RAVENS results as education increased.

Table 38.--Educational attainment in total years of formal education, VADS and RAVENS results (mean).

Years of Education	N	VADS (Mean)	RAVENS (Mean)
9	1	9.0- 9.5	97
10	1	8.0- 8.5	86
11	2	9.3- 9.11	115
12	6	9.7- 9.9	106
13	3	10.2-10.11	99
14	8	11.1-11.11	107
15	2	11.5-11.6	120
16	2	10.8-10.5	108
Total	25		

Additional Data Analyses

The researcher also used other statistical methods to determine possible correlations between age, education, organizational climate,

and training needs. It was found that this study indicated no significant relationships between the variables (significance occurring at the .025 level). Because of the limited population being sampled, the statistic of .005 in Table 39 was not found to be significant. Tables 39 and 40 present the findings by using the Pearson correlation method.

Table 39 shows the findings regarding the relationships between age and organizational climate/training needs and between education and organizational climate/training needs. No significant correlations were found.

Table 39.--Relationships between age and education and organizational climate/training needs, using Pearson correlations.

	Organizational Climate	Training Needs
Age	.126	.005
Education	.551	.543

Table 40 shows the findings regarding the relationship between income and organizational climate/training needs. Again, no significant correlations were found.

Table 40.--Relationships between income and organizational climate/training needs, using Pearson correlations.

	Organizational Climate	Training Needs
Income	.084	.577

Summary

The researcher's purpose in this chapter was to analyze and describe the information collected from the various instruments that were used to collect the data. Each instrument measured numerous dimensions that are commonly found in any organization by supervisors.

The methodology used was content analysis. This provided the means to interpret the data quantitatively and provided comparisons with instrument norms, instruments whose norms were also derived from content analysis. The responses to the surveys were analyzed for frequency and percentage distribution, education, and by total participant responses to the instrument and/or dimensions measured by the instrument. The Pearson correlation statistic was used to supplement the analysis provided. By using this statistic, no significant correlations were found to exist between the dimensions and categories tested.

In Chapter V, the findings, conclusions, and recommendations derived from the data analysis are reported.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

During the past decades there has been a rapid increase in the average level of education in the American work force. The literature revealed that first-line supervisory positions are being filled by individuals with a higher educational level than their predecessors during previous periods.

Industry appears to be relocating to many areas along the United States/Mexican border, where the predominant ethnic group is the Mexican-American. Thus, the majority of first-line supervisors in the local industry would, out of need and work force availability, be Mexican-Americans.

The researcher's purpose in this study was to explore the attitudes and perceptions of Mexican-American supervisors in such areas as training and organizational climate. More specifically, the purpose was to determine if there was a relationship between selected demographic dimensions and the degree of positive or negative attitudes toward the organization, including perceptions regarding their own training needs. The demographic dimensions selected for this study were (a) age and (b) level of formal education. Other

demographic data presented were country of birth, IQ, learning modality, household income, marital status, and number of dependents.

The subjects selected for this study were 25 Mexican-American supervisors employed at two bus-manufacturing facilities located along the United States/Mexican border, specifically the Rio Grande Valley of Texas. The two companies were Eagle International and Trailways Manufacturing. At the time of the research, a total of 34 supervisors were Mexican-Americans. Of this number, one was on leave, four had schedule conflicts, two chose not to participate, and two could not read English sufficiently to participate in the surveys.

Several instruments were used to obtain the data. A Personal Data Questionnaire was developed that provided such information as each individual's supervisory experience, marital status, dependents, country of birth, education, and the like. Two psychological tests were used to determine IQ, short-term memory, and learning modality. These two psychological tests were the Standard Progressive Matrices (used to measure general intelligence) and the Visual-Aural Digit Span (used to measure short-term memory and possible learning modalities).

Other instruments used were the Career Development Profile (measured career interests), the Career Value Scale (measured career interests), the Supervisory Training Needs Analysis (identified supervisory training/developmental needs), the Training Needs Analysis Survey (identified supervisory training/developmental needs), the Employee Motivation Inventory (measured motivational

needs), the Participative Climate Diagnosis (assessed organizational readiness for employee participation), and the Organizational Climate Survey (measured employees' attitudes toward their organizational environment).

The 25 supervisory personnel who were used in this study were informed as to the intent of the research; were read an accompanying letter, which they signed, stating they were participating in the study voluntarily; and completed the Personal Data Form. Thereafter, it took approximately three to four weeks of two-hour daily sessions to complete the instruments. All participants also participated in the VADS and the RAVENS research.

A content-analysis approach was used to analyze the data collected by the questionnaire in order to determine the frequency and the appropriate distribution of the responses. The Pearson correlation statistical method was also used to determine what were the statistical correlations between age, education, household income, and attitudes toward organizational climate and perceived training needs and whether they were significant. An additional aggregation of data was also employed using tabulations that were compiled for educational-attainment levels. It was found that some participants had received formal education only in the United States, others had received education only in Mexico, and others had received education in both countries.

The basic educational attainment of Mexican-Americans and the general purpose of the study were discussed in Chapter I. It was

determined that such a study would assist industry and/or other organizations in identifying training needs and in identifying the organizational perceptions of Mexican-American supervisors along the United States/Mexican border.

Chapter II contained four sections: (a) educational training/learning problems of Mexican-Americans and adult minority populations in general; (b) generic supervisory responsibilities, including leadership functions; (c) supervisory training needs and training-program development; and (d) a general discussion of employee motivational and organizational needs. After reviewing the literature, it was found that little or no literature existed that addressed Mexican-American supervisors. Thus, the four above-mentioned sections were identified and described in order to compare the results of the instruments with the available literature in each of the areas studied.

The research methodology was described in Chapter III. The target population for the study was discussed, as was the specific demographic data obtained from the participants. Such data included age distributions, salary and household income, U.S. veteran status, marital status, country of birth, number of years residing in the United States if foreign born, number of years of formal education, and the last job-performance evaluation. Along with the above, the scores and frequency distribution results of the RAVENS and the VADS (learning modalities and short-term-memory age equivalency) were presented. These two psychological tests were administered by a state-certified educational diagnostician who certified the results.

Chapter IV contained the results of the data analysis. A content-analysis approach was used to analyze the data collected by means of the questionnaires in an effort to present the frequency and distribution of responses. The Pearson correlation method was also used to determine what were the correlations between the variables. As discussed earlier, seven instruments were used, and the results of each were presented in Chapter IV. Along with the instrument results, the findings of the Personal Data Form, the VADS, and the RAVENS were presented and analyzed.

Findings

1. There was no significant relationship between age categories identified and total number of years of formal educational attainment.

2. There was a percentage spread between the self-perceived performance level, career needs, age, and education.

3. There was no significant correlation between training needs and education or age.

4. In motivational needs, the predominant need was self-actualization, regardless of education or age.

5. The participative climate perception toward the organization was such that the higher the age and educational level of the respondents, the less each category believed that the organization was willing to allow them to participate (participative-type management).

6. The attitudes toward the organization's climate dropped with increases in age and education.

7. It was found that the VADS mean decreased with age and increased with education. The RAVENS results indicated that there was no relationship between age and intelligence; however, the higher the education of the supervisor, the higher the RAVENS mean.

Conclusions

The conclusions of the study, which were derived from the principal findings and from the typology as identified throughout the study, are presented in this section. The conclusions are indicative of the perceptions of Mexican-American supervisors in the Rio Grande Valley, inasmuch as the conclusions are to be considered representative only of the surveyed population. The conclusions are presented in the following eight subsections, according to the eight major findings.

1. There was no significant relationship between age categories identified and total number of years of formal educational attainment. Of the 25 participants, 2 supervisors (8%) were between 20 and 29 years of age, 12 (48%) were between 30 and 39 years of age, and 11 (44%) were 40 or older. Of this group, 4 were high school nongraduates, 7 had graduated from high school, 12 had received some college education, and 2 had graduated from college.

The total mean number of years of formal education for the 20-29 age group was 12.5 years; for the 30-39 age group, the mean was 13.5 years of formal education; and for those 40 and above, it was 12.5

years. Through the use of the Pearson correlation, the findings between these two variables indicated a statistic of .042, or no significant correlation.

Based on the above findings, there was no significant correlation between age and educational attainment. In fact, at least for the surveyed group, there was no change in the increase of educational attainment in approximately two decades since there were age differences between participants of at least 20 years.

2. <u>There was a percentage spread between the self-perceived performance level, career needs, age, and education</u>. As was noted in the analysis of data, via percentage spread, the perceived performance level declined with age and education. The Career Development Profile indicated that as age increased, the percentage of positive responses (better performance) decreased. In using a scale from 1 to 10 (1 being poorest performance and 10 being the best performance), respondents in the 20-29 age category rated themselves with a mean of 6.6; those in the 30-39 age category had a mean of 6.0; and those in the 40+ age category reported a mean performance level of 5.7. However, this does not mean that it was the actual performance level.

This same instrument was used to analyze career needs by age categories. Respondents in the 20-29 age category reported 82% positive responses to needing to meet certain career needs; those 30-39 responded with a 73% positive percentage, and the 40+ group rated themselves with 68% positive responses; that is, they viewed the need

of career need satisfaction as being 68%. The overall mean for the supervisory group was 74%.

In view of these findings, it can be deduced that the younger the supervisor was, the better he/she thought he/she was performing. The older the supervisor was, the more poorly he/she perceived his/her performance to be. Accordingly, the younger the supervisor, the more career needs were viewed as important, whereas as age increased, the tendency was for career needs to decline (82% for the younger category as compared to 68% for the older category).

When educational categories were compared to performance levels and career needs, it was found that the college graduates and nongraduates perceived their performance to be higher than did those whose education did not include college. The "college" category averaged a mean of 6.6 on a scale of 1 to 10, whereas the high school nongraduates and graduates had a mean rating of 5.16.

Positive responses toward career needs in the educational categories indicated that the only spread in the response categories was with the college graduates. This group's positive response averaged 54% compared to the rest of the other categories' mean of 73%.

As a general group, among 30 work practices generally performed by supervisors, the highest-rated work practices (1 = lowest, 10 = highest) were (a) making work assignments (7.7), (b) improving employee performance (7.5), (c) determining production requirements (7.2), and (d) establishing goals and objectives (7.2). The work practices identified as being the lowest as to the supervisors'

performance level were (a) entertaining business associates (4.0), (b) analyzing financial reports (4.0), (c) preparing statistical data (4.1), (d) preparing and submitting budgets (4.3), (e) conducting analysis studies (4.4), (f) preparing and submitting proposals (4.7), and (g) organizing project resources (4.7).

In analyzing the frequency of positive responses on supervisory career/job needs, the highest-frequency response needs identified were: (a) completing important assignments (100%), (b) having control of situations I encounter (96%), (c) following instructions (96%), (d) producing measurable results (96%), (e) cooperating with others (96%), (f) following well-defined procedures (92%), (g) having responsibility for a difficult project (92%), (h) making routine decisions (92%), and (i) solving difficult work problems (92%). The least needed or desired career/job needs were (a) not being bothered by others (21%), (b) dealing with things rather than people (33%), (c) being considered powerful and influential (38%), and (d) not working under pressure (42%).

On the Career Values Scale, the supervisors indicated that their preference in an organization was (a) preference for leadership responsibilities (100%), (b) a job that gives me a chance to learn new skills (100%), (c) a job that involves supervision and management (100%), (d) a job that requires considerable contact with people (97%), and (e) a job that makes full use of my skills/abilities (92%). As it related to their own career, they felt that thus far their work had been interesting (97%).

Therefore, as it related to the individual priorities identified, the supervisors preferred working for a large organization in a leadership role where they had the opportunity to learn new skills. The least-needed job need was to work for a well-established, stable company (64%).

Borrowing from Franklin et al. (1977), it can be stated that the surveyed group thought they served a linking function between management and employees. These instruments' findings agreed with Katz (in "Steps Toward Personal Progress," 1983) that supervisors must have good technical skills, human skills, and conceptual skills and/or a way to develop them. According to Katz, this proved that good administrators were not necessarily born but instead were developed.

This, however, somewhat negates Keller's (1966) comment that the Mexican-American culture provided a rationalization for staying out of the "failure region." Supervisory responses indicated the preference of having challenging jobs, job responsibilities, a leadership role, completing important assignments, and a preference for difficult assignments. Security and rationalization for staying out of a "failure region" were not issues.

3. <u>There was no significant correlation between training needs and education or age</u>. The Supervisory Training Needs Analysis and the Training Needs Analysis Survey were used to identify training-need perceptions (self-identified) on behalf of the supervisors. As it related to the age-category breakdown when using the Supervisory Training Needs Analysis, it was found that respondents in the 20-29

age category identified 17 dimensions of a possible 20 dimensions as needed training. Of these, the two dimensions identified as priorities for training were (a) learning methods on training other employees and (b) improving communications with subordinates. Respondents in the 30-39 age group identified eight dimensions, and those in the 40+ category identified ten dimensions. The two latter groups both thought their two priorities as related to training were (a) learning to diagnose performance problems and (b) managing time.

When education was used as a category, the results varied. The high school graduates and nongraduates identified ten dimensions each. The high school nongraduates stated that their training priority was in learning to train employees, whereas the high school graduates preferred learning how to manage time and report writing. The college graduates and nongraduates preferred training in (a) performance areas, (b) improving communication with superiors, and (c) general motivational methods. As a total group, the priority training needs centered on (a) diagnosing and improving subordinates' performance and (b) verbal and written organizational communications.

The Training Needs Analysis Survey measured 12 training-dimension needs. In using this instrument to measure training needs by age group, it was found that respondents in the 20-29 age group identified the need to learn how to train their employees and how to communicate more effectively. Respondents 30 to 39 and 40 and above identified their common training needs as being in the performance-improvement area and in the training of employees.

When education was used as a category, high school nongraduates selected a need to know training skills, high school graduates selected human relations (interfacing), college nongraduates needed training skills, and college graduates felt a need to learn performance-measurement skills. Thus, the areas identified as being the common training needs were (a) training subordinates, (b) human relations, and (c) communications.

In summary, the data obtained from both instruments revealed that the primary training needs, as identified by the supervisors themselves, were in the areas of (a) training/improving subordinate performance and (b) improving interfacing skills. As Terry (1972) stated, employees want to know what is occurring in the organization and especially wish to be informed about achievements, problems, or changes that affect them. Communication remains a key factor that must be used by leadership of any organization. Concerning training, Tracy (1974) recommended that an organization should have training programs that are effective, produce the needed results, and are responsive to the needs of the organization. This researcher found that the supervisors' priority training need was not <u>what</u> to train, but rather <u>how</u> to train.

4. <u>In motivational needs, the predominant need was self-actualization, regardless of education or age</u>. Through the use of Maslow's Hierarchy of Needs via the Employee Motivation Inventory, the motivational needs of the supervisors were measured. It was found that when compared against age categories, the self-actualization need was the one that needed the most fulfillment. Of

the five needs, the need with which participants exhibited the least concern was the status/ego need.

When using education as a category, all groups also indicated a high need for self-actualization. The high school nongraduates and graduates and the college nongraduates all indicated 81% need, whereas the college graduates required 88%. Once again, the status/ego need was the one with which the participants exhibited the least concern. The basic survival need appeared to be met, inasmuch as a fluctuation occurred between age category and education. The same held true for the affiliation/social needs. In summarizing the findings, regardless of the category used, the motivational need that required the greatest satisfaction was the self-actualization need. The least important was the status/ego need.

Maslow (1947) speculated that, depending on the individuals, there may be different satisfaction levels in any hierarchy. As was mentioned, Wesley and Yukl (1984) indicated that a relationship between all hierarchies may not hold true since it may be that certain individuals may have accepted the deprivation of a lower need in the interest of satisfying a higher-level need. In this research, the findings presented a probable participant ability to accept deferred gratification rather than being concerned only with the present.

When using the Pearson correlation statistic to analyze the data, it was found that no significant relationship existed between need satisfaction and age or education. These findings indicated

that the overall statistic between age and survival need was not significant (.831), and that between age and security a correlation of .298 (not significant) existed.

5. The participative climate perception toward the organization was such that the higher the age and educational level of the respondents, the less each category believed that the organization was willing to allow them to participate (participative-type management). In measuring the perceptions of the supervisors toward the organization's readiness for participative management, respondents in all age categories perceived that the organization was not sincere about accepting a participative management style. The educational-category distribution was such that it was found that the higher the educational level, the less the individual perceived the organization's openness/credibility. It can be summarized, then, that, at least in these organizations, older and/or more educated supervisors viewed the organization less credibly than did younger, less educated supervisors.

However, using the instrument's norm, it can be stated that regardless of age or education, all supervisors felt that the organizations (companies) were neither ready nor sincere in wanting a participative management style. The two primary areas about which the participants felt less credible were (a) the organization's efforts/sincerity toward a participative climate and (b) the organization's ability to solve its problems.

6. The attitudes toward the organization's climate dropped with increases in age and education. The participants' attitudes toward

the companies indicated that the older the supervisor, the less favorably he/she viewed the organization. Respondents in the 20-29 age category viewed the organization 79% positively (positive responses versus negative responses in reference to the company). Those in the 30-39 category dropped by 8 percentage points, indicating a 71% positive response. Respondents 40 and older gave a 65% positive response.

When educational categories were examined in reference to organizational climate, a decline in positive responses was noted with the increase in education. More specifically, high school nongraduates responded with a 79% positive response, high school graduates had a 67% positive response, college nongraduates had a 74% positive response, and college graduates had a 58% positive response. In summary, then, high school nongraduates viewed the company more favorably than did college graduates.

Overall, using the instrument norms in the varying dimensions, it was found that supervisors thought that the companies did not have good cost consciousness, that communications could be improved, and that the companies did not discriminate. By the same token, they thought that organizational policies were good, that their own effectiveness was good, and that compensation was appropriate.

7. It was found that the VADS mean decreased with age and increased with education. The RAVENS results indicated that there was no relationship between age and intelligence; however, the higher the education of the supervisor, the higher the RAVENS mean. The

VADS and the RAVENS were administered to the 25 survey participants. Using mean scores for each age category, it was found that the VADS mean, at least for the participants, decreased with age. More specifically, age category 20-29 was 11.0-11.11, category 30-39 resulted in 10.7-10.7, and 40+ resulted in 9.7-9.7.

When educational attainment was used to categorize the participants, it was found that the VADS mean increased with education. The high school nongraduates achieved 8.6-9.9, high school graduates achieved 9.8-9.8, college graduates scored 11.0-11.11, and college graduates scored a mean of 10.8-10.8. In computing mean scores, however, a drop in the college-graduate mean was evident due to the 8.6-8.11 of one of the college graduates.

The RAVENS was administered to determine whether there were any variances due to age or education. When the age distribution was used, there were no notable differences between the age categories. Specifically, respondents age 20-29 achieved a mean of 105, those age 30-39 scored a mean of 107, and those 40 and above achieved a mean of 105.

Some differences were noted when education was used as the comparison category with the RAVENS. For example, those with higher education rated a somewhat higher RAVENS mean. High school nongraduates had a mean of 99, high school graduates achieved a mean of 98, college nongraduates scored 113, and college graduates had a mean of 108. It was found that those participants with 12 years of education or less scored between 8.0 and 9.9 on the VADS, whereas

those with more than 12 years of education had means of 10.2 to 11.11.

In interpreting learning modalities through the use of the VADS, it was found that the Visual-Written and the Visual-Oral were the predominant learning modalities. The total participant mean for age equivalency was 10.42.

Implications

In analyzing the data collected and the general literature available on the subject, the investigator formed general conclusions pertaining to the sampled population. In reviewing the study findings and conclusions, consideration must be given to the overall implications of the study.

It is evident that if an organization is to develop and grow, it must be accompanied and/or molded by effective management. This management must not only satisfy basic employee needs, but it must also satisfy organizational needs. Clearly, then, management influences the determination of the behavior of the organization, especially first-line supervisors since these individuals are in fact the pivot point that affects achievement, job challenge, and the responsibilities of their own employees. This in turn shapes behavior within the organization, which later becomes the behavior of the organization itself.

Communication with supervisors is, therefore, a key factor to be used by the leadership of an organization that wishes to establish itself and grow in any area and/or along the Rio Grand Valley area.

The communication must be such that it is both understandable to the supervisor and addresses the satisfaction and motivation of the supervisor's attitudes. However, the supervisors must have both the skill and the will to perform the expected organizational functions.

It is imperative that motivation, communication, training, and similar organizational responsibilities start at the upper level and continue filtering down to all levels. As was determined by the review of the literature, teaching modalities and the material content must address the needs of the learner in order for such training to be effective. Effective training, therefore, must take into account numerous and differing factors that are intertwined within the mental and physical needs of the employees of the company. Such factors may be meshed or may be unattached to the needs of the company.

Companies that plan to locate a facility along the Rio Grande border should realize that certain concepts of managerial/supervisory behavior may differ across cultural environments. Managers, usually at the top of the hierarchy, via proper training, should heighten their awareness of their own racial/ethnic biases. This will assist managers in learning how attitudes are manifested on the job and also assist them in learning to work in a culture different from their own, i.e., in a different host culture.

As it related to the surveyed population, the self-perceived training needs revolved around such areas as communications/interfacing, learning how to train employees, and performance/problem diagnosis. Thus, companies must train their supervisors on how to

train, how to identify problems, and how to interface with their own employees.

Threaded throughout the responses of the participants was a sense of self-worth and organizational loyalty coupled with a sense of cautious organizational trust. The participants preferred challenging jobs in which they could feel a sense of accomplishment and worth.

A dimension tested in one of the instruments was racial/ethnic discrimination. The responses indicated that the supervisors thought there existed little or no discrimination. However, in conversation with them, it was apparent that many did not recognize discrimination as such but rather considered it favoritism. Some participants expressed that they would resign if they did not agree with things the company was doing.

Another area/dimension that must be taken into account by companies in the area researched is that the salary paid to the Mexican-American supervisors was not indicative of the motivational needs. All participants expressed a significant self-actualization priority need. Such need was clearly above all others.

Psychological testing indicated that the mean IQ for the participants was within established normal standards. Thus, trainers should address modalities and needs rather than attempting to accommodate perceived learning abilities or disabilities. Trainers must stay away from the stereotype that the Mexican-American supervisors are unteachable or that nothing will work.

Recommendations

Given the results of the study, findings, and conclusions, several recommendations for further research are proposed concerning the continued study of Mexican-American supervisors along the United States/Mexican border.

1. This study focused on Mexican-American supervisors in two bus-manufacturing facilities in the Rio Grande Valley of Texas (along the United States/Mexican border). There is a need to replicate a similar study in other companies along the border to determine if differences exist along product lines, along supervisory gender differences, or along supervisory racial/ethnic membership.

2. The writer focused on the present perceptions of Mexican-American supervisors in the bus-manufacturing industry. It is recommended that the study be replicated in three years to determine changes and trends in the participants' attitudes and education and probable changes in their household incomes.

3. The findings indicated that the supervisors felt they needed training in (a) how to train, (b) interfacing, and (c) problem solving. Given these areas, another study should be conducted in three years to determine whether there have been changes in perceived training needs.

4. A study should be conducted within two years to determine the type of training Rio Grande Valley companies provide their employees, how the training is identified (need), the process of delivery, and its effectiveness.

APPENDICES

APPENDIX A

CONSENT FORM

CONSENT FORM

Dear Participant:

During the next three to four weeks you will voluntarily be participating in a project that will be applied toward a doctoral dissertation (Ph.D.). The purpose of this study is to determine possible relationships between education and supervisory perceptions within the organization. The procedure will include the completion of a Personal Data Sheet; limited diagnostic testing; and completion of seven questionnaires related to training needs, career goals, and work environment.

All results will be treated with strict confidence, and you will remain anonymous in all testing/questionnaires. Without any consequences to yourself, if at any time you feel that you have to discontinue participation, you are free to do so.

I have read and understand the above. I also understand that any pertinent questions I may have regarding this research must be addressed to Mr. Faustino Pumarejo, Jr.

_____ _____

Signature Date

APPENDIX B

PERSONAL DATA FORM

PERSONAL DATA FORM

Job Title_____ Number of Years with Company_____

Number of years as a supervisory with the company_____

Number of years experience as a supervisor_____

Companies where previous supervisory experience has been obtained and number of years/months experience:

Company	Experience-- Years/Months	Workforce Composition, i.e., Anglo, Hispanic, Black, etc.

Additional companies, experience, workforce composition: _____

Are you: Male____ Female____ Married____ Single____ Divorced____

Number of dependents____ Number of people living at your residence___

Your permanent address, city, country _____

If born outside the United States, how long have you lived in the United States? Years_____ Months_____

EDUCATION

Up to what school grade (not university or vocational school) did you complete?

_____ Country _____

Number of school years completed _____ Graduated: Yes___ No___

College/University attended _____

City/State/Country_____ Years Completed_____

Type of Degree, if any_____ Graduated: Yes___ No___

Trade/Vocational School_____

City/State/Country_____ Years Completed_____

Graduated: Yes___ No___

Have you ever served in the United States Armed Forces?
Yes____ No___

What Branch? _____

Other _____

Current Yearly Salary _____

Total Household Yearly Income _____

APPENDIX C

ORGANIZATIONAL CLIMATE SURVEY

ORGANIZATIONAL CLIMATE SURVEY

INSTRUCTIONS: Your organization would like to know how you feel about your job, the organization, its management, policies, and practices. The survey will give you a chance to candidly and anonymously offer your opinions and suggestions.

This is not a test. There are no right or wrong answers. Read each question carefully. Then, after each question place an "X" in the box under the column which best expresses your opinion and the situation.

	STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE
1. My supervisor is a good, reliable source of information.	( )	( )	( )	( )
2. I feel free to speak up candidly around here.	( )	( )	( )	( )
3. Communication from management is frank and honest.	( )	( )	( )	( )
4. I get the information I need to do my job properly.	( )	( )	( )	( )
5. The communication program of this organization is effective.	( )	( )	( )	( )
6. Management does a good job controlling costs.	( )	( )	( )	( )
7. Most employees here are interested in doing a good job.	( )	( )	( )	( )
8. Most employees here are interested in keeping costs down.	( )	( )	( )	( )
9. My personal work effort contributes to this organization's success.	( )	( )	( )	( )
10. The quality of this organization's products or services is quite high.	( )	( )	( )	( )

11.	I have personally seen cases where employees have been discriminated against on the basis of race, color, religion or national origin.	( )	( )	( )	( )
12.	I have personally seen cases where employees have been discriminated against because of age or sex.	( )	( )	( )	( )
13.	Black and other minority employees here have equal opportunity for promotion and advancement.	( )	( )	( )	( )
14.	The basic relationship between management and minority employees is good.	( )	( )	( )	( )
15.	The basic relationship between minority and nonminority employees here is good.	( )	( )	( )	( )
16.	There are reasonable opportunities for advancement here.	( )	( )	( )	( )
17.	Promotions here are based on merit and qualifications.	( )	( )	( )	( )
18.	I personally have been given fair consideration for advancement.	( )	( )	( )	( )
19.	Employees here are given opportunities to learn new jobs.	( )	( )	( )	( )
20.	Most of the better jobs here are filled through promotions.	( )	( )	( )	( )
21.	Most of the employees here are friendly.	( )	( )	( )	( )
22.	The attitude toward new employees here is good.	( )	( )	( )	( )
23.	People here cooperate well with each other.	( )	( )	( )	( )
24.	Management and employees share mutual respect.	( )	( )	( )	( )
25.	The relationship between management and the work force is good.	( )	( )	( )	( )
26.	Higher management runs this organization effectively.	( )	( )	( )	( )

27.	Higher management's decisions usually make sense.	( )	( )	( )	( )
28.	This organization has a good reputation in the community.	( )	( )	( )	( )
29.	Overall this is a good place to work.	( )	( )	( )	( )
30.	Management will use the results of this survey constructively.	( )	( )	( )	( )
31.	I understand the work rules and policies here.	( )	( )	( )	( )
32.	The work rules and policies here are reasonable.	( )	( )	( )	( )
33.	The work rules and policies here are administered fairly.	( )	( )	( )	( )
34.	I understand the goals and objectives of my department.	( )	( )	( )	( )
35.	I understand the goals and objectives of this organization.	( )	( )	( )	( )
36.	I have a good understanding of my pay plan.	( )	( )	( )	( )
37.	I have a good understanding of my benefit plan.	( )	( )	( )	( )
38.	My fringe benefits meet my needs fairly well.	( )	( )	( )	( )
39.	My pay here is about the same I would get at other places for the same kind of work.	( )	( )	( )	( )
40.	My pay is fair compared with what other employees here earn for the same kind of work.	( )	( )	( )	( )
41.	The general working conditions here are good.	( )	( )	( )	( )
42.	I have the tools or equipment I need to do my job.	( )	( )	( )	( )
43.	Most employees here are interested in working safely.	( )	( )	( )	( )

44.	Management promptly corrects safety hazards.	( )	( )	( )	( )
45.	Overall, this is a safe place to work.	( )	( )	( )	( )
46.	My supervisor recognizes me when I do a good job.	( )	( )	( )	( )
47.	I feel free to discuss a problem with my supervisor.	( )	( )	( )	( )
48.	My supervisor treats me fairly.	( )	( )	( )	( )
49.	I consider my supervisor to be a good leader.	( )	( )	( )	( )
50.	My supervisor knows his/her job well.	( )	( )	( )	( )

APPENDIX D

EMPLOYEE MOTIVATION INVENTORY

EMPLOYEE MOTIVATION INVENTORY

INSTRUCTIONS: The following are 40 pairs of needs or goals which could apply to anyone. Read each pair carefully. Decide which one of each pair is of greater interest to you. Then indicate your choice by checking the alternative that you have selected. Be sure to make and indicate a choice for each of the 40 pairs.

1. ____a. To have more rest.
   ____b. To have more insurance.

2. ____a. To have more friends.
   ____b. To have more sufficient meals.

3. ____a. To have more clothing.
   ____b. To have a more prestigious job.

4. ____a. To obtain further education.
   ____b. To have better housing.

5. ____a. To have more job security.
   ____b. To have better health.

6. ____a. To have pleasant co-workers.
   ____b. To have a better retirement plan.

7. ____a. To have improved medical insurance.
   ____b. To have a larger office.

8. ____a. To have a feeling of achievement.
   ____b. To take fewer risks.

9. ____a. To be a part of a group.
   ____b. To lose weight.

10. ____a. To have a secure job.
    ____b. To be accepted by others.

11. ____a. To be on a team.
    ____b. To be with important people.

12. ____a. To be recognized for good work.
    ____b. To be in the company of others.

13. ____a. To have a nicer house.
    ____b. To be in better physical condition.

14. ____a. To be protected from unfair treatment.
    ____b. To enjoy more luxuries.

15. ____a. To join a prestigious club.
____b. To be liked by others.

16. ____a. To have a challenging job.
____b. To have a privileged parking space.

17. ____a. To have an interesting job.
____b. To be less tired.

18. ____a. To have more insurance.
____b. To have job satisfaction.

19. ____a. To develop new skills.
____b. To engage in social activities.

20. ____a. To own an expensive car.
____b. To have more control over a job.

21. ____a. To eat better.
____b. To have more responsibility.

22. ____a. To gain fame.
____b. To exercise more.

23. ____a. To get more sleep.
____b. To be needed by others.

24. ____a. To be more cautious.
____b. To have more nourishing food.

25. ____a. To have safer work conditions.
____b. To accomplish something important.

26. ____a. To have a better title.
____b. To have better insurance protection.

27. ____a. To have a secure position.
____b. To help co-workers with their work.

28. ____a. To have a job.
____b. To be protected against loss.

29. ____a. To enjoy friends.
____b. To increase your knowledge.

30. ____a. To be socially prominent.
____b. To belong to a club.

31. ____a. To feel wanted.
____b. To have freedom from layoff.

32. ____a. To feel physically well.
____b. To be a team member.

33. ____a. To have a privileged parking space.
____b. To improve the quality of your life.

34. ____a. To be on a team.
____b. To live in a prestigious neighborhood.

35. ____a. To have a position of importance.
____b. To be careful at work.

36. ____a. To have more energy.
____b. To own an expensive car.

37. ____a. To advance into a higher position.
____b. To become famous.

38. ____a. To be accepted by your friends.
____b. To achieve your full potential.

39. ____a. To enjoy your work.
____b. To have greater self-confidence.

40. ____a. To improve your physical condition.
____b. To assume more responsibility.

APPENDIX E

PARTICIPATIVE CLIMATE DIAGNOSIS

PARTICIPATIVE CLIMATE DIAGNOSIS

INSTRUCTIONS: Following are 50 statements which are relevant to the participative climate of an organization. Please read each statement carefully. Then decide the extent to which you agree with the statement as it applies to the situation in your organization. Indicate your choice by placing a check mark in the appropriate column to the right of each statement.

	STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE
1. New ideas are encouraged and are welcome.	( )	( )	( )	( )
2. Work procedures must be followed very closely.	( )	( )	( )	( )
3. Management often tries new methods and techniques.	( )	( )	( )	( )
4. A great deal of conformity to the status quo is required.	( )	( )	( )	( )
5. People really enjoy trying to come up with better ways to do things.	( )	( )	( )	( )
6. It is safe to speak up and tell it like it is.	( )	( )	( )	( )
7. They make a big secret about everything.	( )	( )	( )	( )
8. Important information seldom gets out in time.	( )	( )	( )	( )
9. Management communication is usually frank and honest.	( )	( )	( )	( )
10. Supervisors are interested in listening to the opinions of employees.	( )	( )	( )	( )
11. The responsibility for controlling costs belongs to higher management.	( )	( )	( )	( )

12.	Each employee has an important impact on costs, quality and productivity.	( )	( )	( )	( )
13.	There are many opportunities to improve product (or services) quality.	( )	( )	( )	( )
14.	Supervisors are not interested in controlling costs.	( )	( )	( )	( )
15.	Employees are truly interested in performing quality work.	( )	( )	( )	( )
16.	People frequently work together in teams or groups.	( )	( )	( )	( )
17.	There's a lot of "class distinction" between levels of the organization.	( )	( )	( )	( )
18.	Most decisions are made by higher management.	( )	( )	( )	( )
19.	Information is shared with trust and confidence.	( )	( )	( )	( )
20.	Supervisors often involve employees when making decisions.	( )	( )	( )	( )
21.	There is a great deal of conflict between departments.	( )	( )	( )	( )
22.	People are friendly and helpful.	( )	( )	( )	( )
23.	The relationship between management and employees is good.	( )	( )	( )	( )
24.	Most senior employees try to help newer employees get adjusted.	( )	( )	( )	( )
25.	People seem to work well together.	( )	( )	( )	( )
26.	Work goals or standards of performance are clear and understandable.	( )	( )	( )	( )
27.	Supervisors seldom say what is expected of you.	( )	( )	( )	( )
28.	Most work goals or standards are realistic and attainable.	( )	( )	( )	( )
29.	Employees are seldom told how well they are doing on their job.	( )	( )	( )	( )

30.	Performance measurement information is fairly accurate.	( )	( )	( )	( )
31.	The major tools of motivation are reward and punishment.	( )	( )	( )	( )
32.	Employees are recognized when they do good work.	( )	( )	( )	( )
33.	Rewards are promised but seldom granted.	( )	( )	( )	( )
34.	Supervisors help employees gain satisfaction from their work.	( )	( )	( )	( )
35.	People are motivated to achieve above average performance.	( )	( )	( )	( )
36.	Management is generally against change.	( )	( )	( )	( )
37.	Useful new ideas are accepted readily.	( )	( )	( )	( )
38.	People prefer to do things the old way.	( )	( )	( )	( )
39.	Most employees are eager and willing to try new methods.	( )	( )	( )	( )
40.	Change is an accepted way of life.	( )	( )	( )	( )
41.	When problems arise people tend to deal with them emotionally.	( )	( )	( )	( )
42.	It is easier to develop solutions than to find causes of the problem.	( )	( )	( )	( )
43.	If we put our minds to it we can solve our operational problems.	( )	( )	( )	( )
44.	Management uses fairly effective problem-solving methods.	( )	( )	( )	( )
45.	No one seems willing to take responsibility for making a decision.	( )	( )	( )	( )

THE FOLLOWING SECTION CAN BE USED WHEN EMPLOYEES ARE REPRESENTED BY A LABOR ORGANIZATION

46.	The relationship between the organization and the union is good.	( )	( )	( )	( )
47.	A lot of the grievances wind up in arbitration.	( )	( )	( )	( )
48.	Labor contract negotiations usually end productively.	( )	( )	( )	( )
49.	The union and management cooperate with each other fairly well.	( )	( )	( )	( )
50.	The labor relations climate is somewhat hostile.	( )	( )	( )	( )

APPENDIX F

TRAINING NEEDS ANALYSIS SURVEY

TRAINING NEEDS ANALYSIS SURVEY

INSTRUCTIONS: Below are 48 work practices which are typically performed by supervisors and managers. Place a check mark in the column to the right of each work practice which best describes its degree of importance to your job, if you are the prospective participant, or to your subordinate's job, if you are the superior of the prospective training participant. Then circle the number in the scale to the far right which best indicates your opinion of the amount of training in each work practice that the training participant requires.

VI = Very Important
I = Important
NI = Not Important

VC = Very Considerable
C = Considerable
S = Some

L = Little
VL = Very Little

MANAGERIAL PRACTICES	IMPORTANCE TO JOB (VI) 3	(I) 2	(NI) 1	AMOUNT OF TRAINING THAT WOULD BE HELPFUL (VC) 5	(C) 4	(S) 3	(L) 2	(VL) 1
1. Maintaining good relationships with subordinates.	( )	( )	( )	5	4	3	2	1
2. Directing the efforts of subordinates toward a common goal.	( )	( )	( )	5	4	3	2	1
3. Determining which leadership approach is best for a particular situation.	( )	( )	( )	5	4	3	2	1
4. Modifying leadership style as the situation requires.	( )	( )	( )	5	4	3	2	1
5. Instructing new employees in proper job methods.	( )	( )	( )	5	4	3	2	1
6. Training employees in new or revised job methods.	( )	( )	( )	5	4	3	2	1
7. Checking progress of trainees.	( )	( )	( )	5	4	3	2	1
8. Using effective training methods and techniques.	( )	( )	( )	5	4	3	2	1
9. Dealing with subordinates in a fair, uniform and consistent manner.	( )	( )	( )	5	4	3	2	1
10. Understanding the emotions, attitudes and beliefs which can affect employee behavior.	( )	( )	( )	5	4	3	2	1

11. Getting employees to participate in job-related matters of importance to them.	( ) ( ) ( )	5	4	3	2	1
12. Dealing with difficult personalities.	( ) ( ) ( )	5	4	3	2	1
13. Giving recognition to subordinates who do a good job.	( ) ( ) ( )	5	4	3	2	1
14. Motivating the average employee.	( ) ( ) ( )	5	4	3	2	1
15. Understanding what motivates employees.	( ) ( ) ( )	5	4	3	2	1
16. Developing teamwork among subordinates.	( ) ( ) ( )	5	4	3	2	1
17. Speaking before a group.	( ) ( ) ( )	5	4	3	2	1
18. Communicating with employees about job-related matters.	( ) ( ) ( )	5	4	3	2	1
19. Keeping channels of two-way communication open.						
20. Writing clear, concise, accurate, and timely reports.	( ) ( ) ( )	5	4	3	2	1
21. Understanding all of the organization's personnel policies, practices, and procedures.	( ) ( ) ( )	5	4	3	2	1
22. Using progressive discipline.	( ) ( ) ( )	5	4	3	2	1
23. Administering discipline when needed.	( ) ( ) ( )	5	4	3	2	1
24. Ensuring that discipline is administered in a fair, uniform and consistent manner.	( ) ( ) ( )	5	4	3	2	1
25. Setting reasonable, objective work standards for subordinates.	( ) ( ) ( )	5	4	3	2	1
26. Determining causes of poor employee work performance.	( ) ( ) ( )	5	4	3	2	1
27. Counseling a subordinate about his or her work performance.	( ) ( ) ( )	5	4	3	2	1
28. Taking effective corrective action to improve employee work performance.	( ) ( ) ( )	5	4	3	2	1
29. Listening to employee complaints and problems.	( ) ( ) ( )	5	4	3	2	1

30. Counseling a subordinate about a job-related problem or complaint.	( ) ( ) ( )	5	4	3	2	1
31. Having empathy for subordinates' concerns, fears, and needs.	( ) ( ) ( )	5	4	3	2	1
32. Following up on employees' complaints.	( ) ( ) ( )	5	4	3	2	1
33. Identifying what the real problem or issue is.	( ) ( ) ( )	5	4	3	2	1
34. Determining problem root causes.	( ) ( ) ( )	5	4	3	2	1
35. Using effective problem-solving methods.	( ) ( ) ( )	5	4	3	2	1
36. Using group decision-making techniques.	( ) ( ) ( )	5	4	3	2	1
37. Setting precise, measurable, and realistic goals or objectives.	( ) ( ) ( )	5	4	3	2	1
38. Developing plans or strategies to accomplish objectives.	( ) ( ) ( )	5	4	3	2	1
39. Organizing manpower, material, or other resources.	( ) ( ) ( )	5	4	3	2	1
40. Establishing clear lines of authority and responsibility among subordinates.	( ) ( ) ( )	5	4	3	2	1
41. Making clear, unambiguous work assignments.	( ) ( ) ( )	5	4	3	2	1
42. Knowing when to issue verbal rather than written orders.	( ) ( ) ( )	5	4	3	2	1
43. Ensuring that the right person is assigned to a particular job.	( ) ( ) ( )	5	4	3	2	1
44. Following up to ensure that work assignments are properly carried out.	( ) ( ) ( )	5	4	3	2	1
45. Effectively planning and scheduling subordinates' work activities.	( ) ( ) ( )	5	4	3	2	1
46. Effectively planning and scheduling own work activities.	( ) ( ) ( )	5	4	3	2	1
47. Delegating work to subordinates.	( ) ( ) ( )	5	4	3	2	1
48. Meeting assigned schedules and deadlines.	( ) ( ) ( )	5	4	3	2	1

APPENDIX G

SUPERVISORY TRAINING NEEDS ANALYSIS

SUPERVISORY TRAINING NEEDS ANALYSIS

INSTRUCTIONS: Below are 20 sets of feelings or concerns that are commonly experienced by managers and supervisors. Two alternatives are provided for each set.

SLA = Strongly Agree
SWA = Somewhat Agree
SWD = Somewhat Disagree
SD = Strongly Disagree

	SLA	SWA	SWD	SD
1. When communicating with employees about job-related matters, I wish that I:				
a. had something more meaningful to say.	( )	( )	( )	( )
b. could express myself more clearly.	( )	( )	( )	( )
2. When training subordinates in new or revised job methods, I wish that I:				
a. had better teaching skills.	( )	( )	( )	( )
b. understood the job better myself.	( )	( )	( )	( )
3. When trying to motivate employees, I wish that I:				
a. understood what motivation really is.	( )	( )	( )	( )
b. knew how to motivate the average employee.	( )	( )	( )	( )
4. When trying to accomplish a job, I wish that I knew how to:				
a. set meaningful work objectives.	( )	( )	( )	( )
b. plan and schedule things better.	( )	( )	( )	( )
5. When disciplining an employee, I wish I knew:				
a. how to be firm, yet fair at the same time.	( )	( )	( )	( )
b. more about our work rules and policies.	( )	( )	( )	( )
6. When dealing with low-performance employees, I wish that I knew:				
a. why people perform as they do.	( )	( )	( )	( )
b. how to determine root causes of low performance.	( )	( )	( )	( )
7. When improving employee work performance, I wish that I knew how to:				
a. develop an effective remedial plan.	( )	( )	( )	( )
b. improve work methods with the employee.	( )	( )	( )	( )

8.	When making work assignments, I wish that I knew how to:				
	a. select the best person for the job.	( )	( )	( )	( )
	b. give clear, understandable instructions.	( )	( )	( )	( )
9.	When communicating with my boss, I wish I knew:				
	a. what to keep him/her informed about.	( )	( )	( )	( )
	b. how to talk with him/her about sensitive issues.	( )	( )	( )	( )
10.	When making decisions, I wish that I knew how to:				
	a. use rational or scientific decision-making methods.	( )	( )	( )	( )
	b. get more participation from my subordinates.	( )	( )	( )	( )
11.	When handling employee complaints and problems, I wish that I knew how to:				
	a. listen more effectively.	( )	( )	( )	( )
	b. determine what a real problem is.	( )	( )	( )	( )
12.	When dealing with my subordinates, I wish that I:				
	a. understood more about human behavior.	( )	( )	( )	( )
	b. knew how to develop better team work.	( )	( )	( )	( )
13.	When dealing with people in other departments, I wish that I knew how to:				
	a. coordinate work activities better.	( )	( )	( )	( )
	b. gain more cooperation.	( )	( )	( )	( )
14.	When dealing with my own affairs, I wish that I knew how to:				
	a. organize my time better.	( )	( )	( )	( )
	b. avoid interruptions and other time wasters.	( )	( )	( )	( )
15.	When writing reports, I wish that I knew:				
	a. more about grammar and punctuation.	( )	( )	( )	( )
	b. how to express myself in writing more clearly.	( )	( )	( )	( )
16.	When counseling an employee about work performance, I wish that I knew how to:				
	a. set objective work standards.	( )	( )	( )	( )
	b. conduct a good work performance appraisal.	( )	( )	( )	( )

17. When handling a union grievance, I wish that I:
    a. knew more about the union contract. ( ) ( ) ( ) ( )
    b. had more skill in dealing with union officials. ( ) ( ) ( ) ( )

18. When exercising leadership, I wish that I knew:
    a. more about what qualities a leader should have. ( ) ( ) ( ) ( )
    b. what kind of leadership style to use. ( ) ( ) ( ) ( )

19. When trying to improve my department's effectiveness, I wish that I:
    a. could improve the attitude of my subordinates about quality. ( ) ( ) ( ) ( )
    b. had a better understanding of productivity improvement methods. ( ) ( ) ( ) ( )

20. When dealing with difficult and frustrating situations, I wish that I knew how to:
    a. remain calm and minimize stress. ( ) ( ) ( ) ( )
    b. handle the situation effectively. ( ) ( ) ( ) ( )

APPENDIX H

CAREER DEVELOPMENT PROFILE

CAREER DEVELOPMENT PROFILE

PART A--WORK PRACTICES

INSTRUCTIONS: Part A contains a list of 30 work practices that are of interest to many managers and supervisors. In the appropriate columns to the right of each work practice, indicate your self-assessment of your current performance.

		CURRENT PERFORMANCE LEVEL									
		Low				Avg.					High
		1	2	3	4	5	6	7	8	9	10
1.	Exchange ideas with associates.	1	2	3	4	5	6	7	8	9	10
2.	Prepare and submit budgets.	1	2	3	4	5	6	7	8	9	10
3.	Analyze problems.	1	2	3	4	5	6	7	8	9	10
4.	Present persuasive verbal reports.	1	2	3	4	5	6	7	8	9	10
5.	Establish goals and objectives.	1	2	3	4	5	6	7	8	9	10
6.	Train new employees.	1	2	3	4	5	6	7	8	9	10
7.	Prepare operating schedules.	1	2	3	4	5	6	7	8	9	10
8.	Develop control measures.	1	2	3	4	5	6	7	8	9	10
9.	Develop new methods or processes.	1	2	3	4	5	6	7	8	9	10
10.	Entertain business associates.	1	2	3	4	5	6	7	8	9	10
11.	Speak before a group.	1	2	3	4	5	6	7	8	9	10
12.	Analyze financial reports.	1	2	3	4	5	6	7	8	9	10
13.	Choose among alternatives.	1	2	3	4	5	6	7	8	9	10
14.	Prepare and submit proposals.	1	2	3	4	5	6	7	8	9	10
15.	Develop project plans.	1	2	3	4	5	6	7	8	9	10
16.	Make work assignments.	1	2	3	4	5	6	7	8	9	10
17.	Determine production requirements.	1	2	3	4	5	6	7	8	9	10
18.	Improve employee performance.	1	2	3	4	5	6	7	8	9	10
19.	Conduct value analysis studies.	1	2	3	4	5	6	7	8	9	10
20.	Participate in meetings.	1	2	3	4	5	6	7	8	9	10
21.	Prepare and submit reports.	1	2	3	4	5	6	7	8	9	10
22.	Prepare statistical data.	1	2	3	4	5	6	7	8	9	10
23.	Analyze technical requirements.	1	2	3	4	5	6	7	8	9	10
24.	Demonstrate products or services.	1	2	3	4	5	6	7	8	9	10
25.	Organize project resources.	1	2	3	4	5	6	7	8	9	10
26.	Direct subordinates' activities.	1	2	3	4	5	6	7	8	9	10
27.	Evaluate operational efficiency.	1	2	3	4	5	6	7	8	9	10
28.	Correct performance deficiencies.	1	2	3	4	5	6	7	8	9	10
29.	Estimate project costs.	1	2	3	4	5	6	7	8	9	10
30.	Coordinate activities with associates.	1	2	3	4	5	6	7	8	9	10

PART B--CAREER NEEDS

Please place a check mark in the space to the right of any of the following that are most important to you in a job.

1.	Having control of situations I encounter.	____
2.	Not working under pressure.	____
3.	Having a position of authority over others.	____
4.	Dealing with things rather than people.	____
5.	Not needing to rely on others.	____
6.	Following instructions.	____
7.	Having others like me.	____
8.	Producing measurable results.	____
9.	Not being bothered by others.	____
10.	Minimizing risks.	____
11.	Being more clever than others.	____
12.	Being accepted by others.	____
13.	Having a highly structured job.	____
14.	Cooperating with others.	____
15.	Following well-defined procedures.	____
16.	Being helped by my supervisor.	____
17.	Having a comfortably paced job.	____
18.	Having responsibility for a difficult project.	____
19.	Making routine decisions.	____
20.	Chance to be the boss.	____
21.	Being considered powerful and influential.	____
22.	Being left alone to do my job.	____
23.	Having a secure, predictable job.	____
24.	Doing better work than others.	____
25.	Directing what others do.	____
26.	Completing important assignments.	____
27.	Working with people I like.	____
28.	Solving difficult work problems.	____
29.	Working with others as an equal.	____
30.	Developing new friendships.	____

APPENDIX I

CAREER VALUES SCALES

CAREER VALUES SCALES

INSTRUCTIONS: Below are four sets of partially completed statements concerning career values and interests. Complete the statments in each set by selecting the alternative that is closest to how you feel about each issue. Then in the appropriate space, rank the five most important choices that you made in each set.

WORK ENVIRONMENT PREFERENCE

I PREFER TO:

_____a. work for a large company.
_____b. work for a small company.

_____a. have competitive, challenging co-workers.
_____b. have friendly, helpful co-workers.

_____a. be located near a large city.
_____b. be located near a rural area.

_____a. work at a more relaxed job.
_____b. work at a fast-paced job.

_____a. have a high-risk/high-reward job.
_____b. have a low-risk/moderate-reward job.

_____a. work for a well-established, stable company.
_____b. work for a rapidly growing newer company.

_____a. work for a competent, demanding supervisor.
_____b. work for an experienced, relaxed supervisor.

_____a. work at a nonstress job.
_____b. work under some pressure.

_____a. have a complex, challenging job.
_____b. have a less complex, more routine job.

_____a. work in a highly people-oriented environment.
_____b. work in a highly task-oriented environment.

RANKING:
1. _____
2. _____
3. _____
4. _____
5. _____

POSITION PREFERENCE

I PREFER A JOB THAT:

_____a. gives me prestige and status.
_____b. is important but not too visible.

_____a. is technical in nature.
_____b. is nontechnical in nature.

_____a. does not require responsibility for supervision.
_____b. involves leadership responsibility.

_____a. is relatively independent from being supervised.
_____b. offers help and guidance from a supervisor.

_____a. frees me from having to make frequent, important decisions.
_____b. involves making frequent, important decisions.

_____a. requires considerable contact with people.
_____b. requires relatively little contact with people.

_____a. provides me with considerable job security.
_____b. provides me with challenge and excitement.

_____a. lets me define my own responsibilities.
_____b. is well defined and structured.

_____a. involves relatively little risk taking.
_____b. involves taking risks.

_____a. follows well-defined procedures.
_____b. allows me to use my own judgment and initiative.

RANKING:
1. _____
2. _____
3. _____
4. _____
5. _____

GROWTH AMBITION

I PREFER A JOB THAT:

_____a. gives me a chance to learn new skills.
_____b. gives me the chance to master old skills.

_____a. will offer me a stable and secure future.
_____b. will offer me the chance to conquer the unknown.

_____a. lets me advance as fast as possible.
_____b. provides advancement, at a steady planned pace.

_____a. pays a fair, equitable wage or salary.
_____b. will make me the highest paid at my level.

_____a. makes full use of my skills and abilities.
_____b. does not drain all of my energy.

_____a. is nonmanagerial in nature.
_____b. involves supervision and management.

_____a. will increase my responsibility.
_____b. does not overburden me with responsibility.

_____a. is comfortable for me now.
_____b. I can grow into in the future.

_____a. provides many opportunities for advancement.
_____b. provides plenty of time for recreation and family activities.

_____a. offers the chance to advance in technical responsibility.
_____b. offers the chance to advance in administrative responsibility.

RANKING: 1. _____
2. _____
3. _____
4. _____
5. _____

CAREER INTROSPECTION

THUS FAR IN MY CAREER:

_____a. my work has generally been interesting.
_____b. my work has been rather dull.

_____a. I have enjoyed considerable job responsibility.
_____b. I have not had enough job responsibility.

_____a. I have a real sense of accomplishment.
_____b. I lack a sense of accomplishment.

_____a. my skills and ability have been properly used.
_____b. my skills and ability have been underutilized.

_____a. my progress toward promotion has been satisfactory.
_____b. my progress toward promotion has been unsatisfactory.

_____a. I have been able to grow and develop professionally.
_____b. I have not had the opportunity to grow and develop professionally.

_____a. my job has been reasonably prestigious.
_____b. my job has been somewhat demeaning.

_____a. my compensation has met my expectations.
_____b. my compensation has not met my expectations.

_____a. my job has fulfilled many of my personal needs.
_____b. my job has done little to fulfill my personal needs.

_____a. I have been confident of the future.
_____b. I have not been confident of the future.

RANKING:
1. _____
2. _____
3. _____
4. _____
5. _____

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