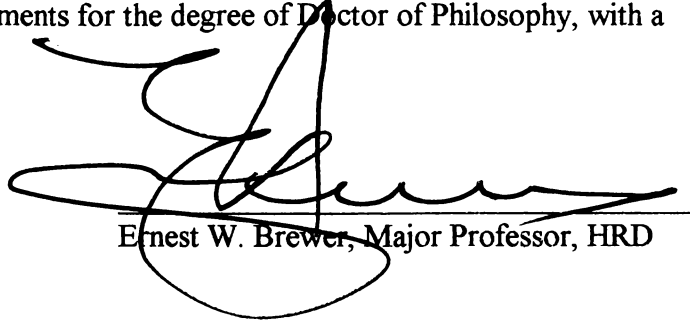


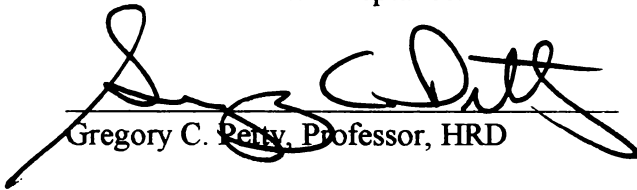
To the Graduate Council:

I am submitting herewith a dissertation written by Vivian Marshall entitled "Empowerment and Occupational Stress of International Society for Performance Improvement Members." I have examined the final paper copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Human Ecology.



Ernest W. Brewer, Major Professor, HRD

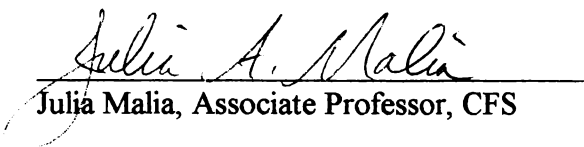
We have read this dissertation
and recommend its acceptance.



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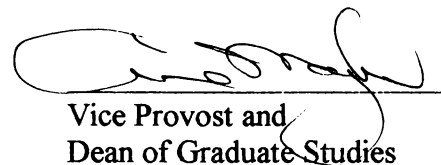


Randal Pierce, Assistant Professor, HRD



Julia Malia, Associate Professor, CFS

Accepted for the Council



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Dean of Graduate Studies

Thesis
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**EMPOWERMENT AND OCCUPATIONAL STRESS
OF INTERNATIONAL SOCIETY FOR
PERFORMANCE IMPROVEMENT MEMBERS**

**A Dissertation
Presented for the
Doctor of Philosophy Degree
The University of Tennessee, Knoxville**

**Vivian Gregory Marshall
August 2002**

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ABSTRACT

The purpose of this study was to determine whether or not there are correlations between empowerment behaviors, and occupational stress, as measured by occupational role adjustment, psychological strain, and the availability of personal coping resources. In addition, this study sought to determine whether or not there are significant differences in occupational stress, as measured by occupational role adjustment, psychological strain, and the availability of personal coping resources based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.

Four hundred questionnaire packets were mailed to members of the International Society for Performance Improvement (ISPI). The return response rate was 40% ($N = 160$). Thirty-three (33) packets also were returned marked “unknown at this address.”

The research packets consisted of two survey instruments: (a) the Occupational Stress Inventory-Revised (OSI-R) developed by Osipow (1998) and (b) the Management Empowerment Assessment Direct Report (MEADR) developed by Briggs (1999). In addition, the packets contained a demographic sheet comprised of eight demographic questions. Also enclosed was a cover letter, which described the study and contained a plea for help, and a small token incentive of one dollar.

Pearson's r correlation coefficient analysis, using data from the sample in the study, indicated there were no significant correlations between: (a) empowerment, as measured by enablement, encouragement, and trust, and (b) occupational stress, as measured by occupational role adjustment, psychological strain, and availability of personal coping resources.

A multivariate analysis of variance (MANOVA) procedure was used to identify any mean differences in occupational stress based on the demographic variables of interest. There were no significant differences found in occupational stress, as measured by occupational role adjustment psychological strain, and availability of personal coping resources, based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title. However a significant finding was found in the availability of personal coping resources for individuals who reported working on self-directed work teams.

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CHAPTER I

INTRODUCTION

Stress has become a significant area of concern for almost everyone, both in the workplace and in personal lives. The American Psychological Association (APA) and the National Institute for Occupational Safety and Health (2001) have merged forces to establish joint work and wellness conferences. Since 1990, these conferences have been held annually, and the main areas of focus have been stress and the future of mental health in America.

Researchers have linked excessive stress in organizations to associated personnel problems, which translated into reduced productivity, absenteeism, job turnover, and premature retirement (Alluisi & Flesihman, 1982; Burke, 1987; Cedoline, 1982; Chadwick-Jones, Nicholson, & Brown, 1982; Rosch, 1984; Saffer, 1984). According to Miller and Smith (1997), stress caused about one million employees to be absent on any given workday and ultimately was responsible for 50% of employee burnout and 40% of employee turnover.

In terms of lost hours due to absenteeism, reduced productivity, and workers' compensation benefits, stress has cost American industry more than \$300 billion annually, or approximately \$7,500 per worker per year (Miller & Smith, 1997). Stress also has been linked to the six leading causes of death: heart disease, cancer, lung ailments, accidents, cirrhosis of the liver, and suicide (Miller & Smith).

Distressed individuals also can experience adverse health effects such as exhaustion, ulcers, headaches, and coronary heart disease (Beehr & Bhagat, 1985; Davis, 1979; Greenberg, 1984; Martin & Schumerhorn, 1983; Sethi & Schuler, 1984; Tung &

Kock, 1980; Yates 1979). Recent legal and social trends have linked the functioning and well-being of organizations closely to the functioning and well-being of their employees (Miller & Smith, 1997). Organizations have been held financially accountable for problems related to job stress experienced by their employees, and stress has become expensive for these organizations.

Company-paid health care benefits due to stress-induced illnesses can create financial burdens for many companies (Margolis, Keowa, & Quinn, 1974; Van Harrison, Moss, Dielman, Horvath, & Harlan, 1987). According to Miller and Smith (1997), health care costs accounted for approximately 12% of the gross domestic product, and these authors predicted that this amount would escalate annually.

Other costs of stress to an organization could include retaining employees, replacing individuals who quite their jobs (Frew, 1977), and paying for sick employees' health care (Quick & Quick, 1984). Cherniss (1980) and Veniga (1979) believed another cost is correcting the damage (frequently unknown and hard to measure) of unhelped and unhappy clients affected by individuals who have lost their objectivity, enthusiasm, and commitment. Greenwood and Greenwood (1979) also cited the declining productivity of employees who have effectively quit but have remained on the payroll. Programs for employee assistance and counseling have become more common than ever in business and industry (Maslach & Jackson, 1996). It is no small wonder that distressed individuals have adversely affected the financial resources of their organizations.

In addition to spending more to care for stress related illnesses of employees, organizations must fight to remain competitive in a global marketplace (Bardwick, 1991; Carnevale, 1991; Conner, 1993; Hammer & Champy, 1993; Peters, 1988; Rothwell,

Prescott, & Taylor, 1998). Organizations increasingly must respond to an unending range of external and internal pressures, including changes in technology, customer tastes, competitors' activities, materials, compliance with laws, social or cultural values, and changing economic circumstances.

Fierce competition has forced many organizations to look for better ways to manage their most vital assets, which are their human resources. Organizational development practitioners have recommended the use of teams and an empowered workforce as key strategic tools for helping organizations in achieving financial success and sustainable competitiveness (Ashkenas, Ulrich, & Kerr 1995; Katzenbach & Smith, 1992; Parker, 1990). Others (Argyris, 1957, 1964, 1974; Kouzes & Pozner, 1995; McGregor, 1960) have believed that empowerment is the key leadership component in helping employees deal with stress created by constant change. However, little research has been conducted to link the potential use of empowerment behaviors as a leadership tool and as a tool for helping reduce occupational stress and psychological strain caused by stress.

Statement of the Problem

Stress is likely to continue to be a major problem in the contemporary United States. It has negatively affected the daily lives of millions of Americans and has caused a bewildering array of physiological, social, and psychological malfunctions (Friedman & Rosenman 1974; Selye, 1976; Yates, 1979). Warshaw (1979) asserted that on an economic level, the effects of stress have cost the nation over \$100 billion annually. Warshaw believed that \$100 billion annually was a gross understatement of the problem and that the cost of stress really could not be calculated. Moreover, available evidence at

that time suggested that stress-related maladies had increased (Mitchell, 1977).

Stress can have a profound impact on the lives of all individuals regardless of variations in lifestyles, occupations, or geographical location. It has become a significant cause of illness and accidents not only for the victim but also for the family and friends of the victim. Stress has been shown to affect an individual's personality, perceptions, feelings, attitudes, and/or behaviors (Mitchell, 1977; Warshaw, 1979).

The effects of stress could reach beyond immediate victims to affect political, social, and work organizations. The growth and survival of organizations, as living, functioning entities, could be very much related to their success in coping with stress (Mitchell, 1977; Morris, 1978; Warshaw, 1979).

An extensive literature search revealed a large number of studies that have cited the benefits to an organization from changing its hierarchical or traditional structure to a more participative approach and empowering its employees (Block, 1987a, 1987b; Byham & Cox, 1988; Gray & Starke, 1988; Guillory 1989; Hampton, Summer, & Webber, 1982; Hellriegel & Slocum, 1992; Hellriegel, Woodman, & Solcum, 2000; Ivancevich & Matteson, 1993). However, additional research is needed to determine if empowered individuals have (a) lower occupational stress and psychological strain and (b) more coping resources available to them than do other workers.

Purpose of the Study

A review of the literature has shown there have been many previous research studies on the subject of stress. Clinically focused studies of stress have identified specific physical occupational stressors such as temperature, noise, task load, lighting, time pressure, and workplace design (Averill, 1973; Baron, 1986; Baumeister, 1984;

Driskell & Salas, 1996). Other researchers have taken a more holistic look at stress in the workplace, and they have identified various occupational stressors that include such things as job structure, role in the organization, career development, interpersonal relationships, organizational structure, and climate (Blackler & Shimmin, 1984; Blake & Mouton, 1968; Blake, Mouton, Barnes & Greiner, 1964; Caplan, Cobb, French, Harrison, & Pinneso, 1975; Kahn & Quinn, 1970; Kahn, Wolfe, Quinn, & Snoek, 1964; Katz & Kahn, 1966; Tanner, 1976; Yates, 1977). However, there appears to be little research conducted that has focused on examining possible relationships between empowerment behaviors of leaders and reduction of occupational stress. In order to focus the research project, I identified five primary purposes for the study:

1. To examine possible relationships between empowerment and occupational stress.
2. To examine possible differences in occupational stress based on the demographic variables of the participants.
3. To investigate the possibility of empowerment as an aid in increasing the availability of personal coping resources.
4. To investigate the applicability of empowerment as an aid in effectively dealing with occupational stress and psychological strain.
5. To expand the knowledge base of the Occupational Stress Inventory-Revised (OSI-R) (Osipow, 1998) and the Management Empowerment Assessment Direct Report (MEADR) (Briggs, 1999) Questionnaires.

Rationale for the Study

If the null hypotheses of the present study were to be rejected, this would mean that individuals potentially could benefit because organizations then would have documented research data from which to develop value-added organizational interventions. These interventions could help employees experience less occupational

stress and psychological strain and could help increase availability of their personal coping resources. Additionally, successful interventions could potentially help individuals move up Maslow's needs hierarchy and be more likely to achieve self-actualization (Maslow, 1943, 1954, 1985, 1998). The results from the research project also could further the body of knowledge about empowerment and about participative management as critical organizational strategies for optimizing individual and organizational performance. New educational curricula could be developed to enhance what is known today about effective leadership.

Implications of this study also could be of major importance in helping to develop knowledge that can be used to create work environments that give workers more control over their work. Results of this study also could be of importance in helping society at large deal with the tremendous amounts of stress that individuals appear to be experiencing today and into the foreseeable future. On the other hand, if the null hypotheses were not rejected, the need for further research would be highlighted because serious questions could arise about what is known today about empowerment and occupational stress. If the results of this study were to show positive correlations among the variables of interest, these findings could become significant contributions to developing new tools and techniques for helping individuals deal with the trauma of increased change and decreased amount of time in which to adjust to the change.

Findings from the study could help support Graves' research on spiral dynamics (cited in Beck & Cowan, 1996). In 1974, Graves had warned that the human race was preparing for a momentous leap created by changes that would impact the American culture and the world to the core. Some researchers (Beck & Cowan, 1996; Carnevale,

1991; Castells, 2000; Conner, 1993; Enriquez, 2001; Hammer & Champy, 1993; van der Werff, 2000, 2001) believe that the magnitude of change could be at that level today. If this were true, change could, in essence, turn the world upside, thrust humans into a new level of evolution or cause them to regress to previous levels of evolution, and reshape society. It could be imperative that new knowledge be sought to help facilitate the human ability to recover from disruptive change cycles.

The findings from the present study could contribute to new knowledge for developing effective change strategies and tools. Additionally, findings from this research project could offer considerable potential for measuring outcomes and establishing the effectiveness of various individual and organizational interventions designed to reduce stress and strain.

Theoretical Framework

Snow (1973) defined theoretical framework as a term commonly used in research to refer to a coherent classification of assumptions, related definitions, and postulates from which general propositions might be translated into testable hypotheses. Mauch and Birch (1993) believed that a clearly defined theoretical framework could serve as an umbrella for a research project and could guide the study.

Any research project focused on the human species could be framed in a number of different theoretical frameworks. However, a natural link may exist between the theories that support organizational development and the proposed study because of the close relationship of organizational development to behavioral science (French, 1978; Herbert, 1976; Partin, 1973). Sikes, Drexler and Grant (1989) defined behavioral science

as the systematic study of behavior that encompasses all aspects of scientific inquiry related to the study and understanding of human behaviors.

Some researchers have argued that the field of organizational development emerged as a result of both internal and external demands upon organizations (Dubrin, 1974; Warrick, 1985). Internally, employees wanted greater participation in decision-making and greater control over their work lives. Externally, economic changes and pressures forced organizations to adjust to new environmental demands, such as new global marketplaces, and international competition. To meet challenges facing them, organizations have been forced to implement increased change initiatives and to take even greater risks (Carnevale, 1991).

Burke and Hornstein (1972) defined organizational development as a process of planned change of an organization's culture, from one that avoided an examination of social processes (especially decision making, planning, and communication) to one in which examination of social processes was institutionalized and legitimized. They defined the culture of an organization as a set of learned and shared assumptions about the norms (e.g. standards, rules) that regulated the behaviors of members. Burke (1977) believed that organizational development was a set of humanistic, democratic, scientific, and economic values. He also believed that these values, in combination with a set of intervention technologies, were implemented through a set of collaborative relationships and processes between change agent and organization. He argued that the end result would be facilitating the movement of employees and organizations toward objectives of greater personal and organizational exploration and growth.

Gilley and Eggland (1989) argued that an organization would not survive if it remained status quo and that change must occur through its human subsystem. Gibson, Ivancevich, and Donnelly (1988) also believed that change must occur through the collaboration of organizational members who used a variety of behavioral science theories, research, and technologies. They argued that organizational development interventions had to be aligned with infrastructures and work processes to support human efforts. They further argued that input into and influence over decisions must be moved downward to appropriate levels in the organization (Gibson et al.).

Other researchers believed that the ultimate goal of organizational development was to develop the self-renewing capacity of an organization through optimization of its human subsystem (Gibson, Ivancevich, & Donnelly, 1988; Margulies & Raia, 1978). These researchers believed that self-renewal refers to the organization's ability to become introspective so that its problems and weaknesses can be discovered and the necessary resources can be deployed in order to affect improvement through change initiatives. They also believed that it was through this process that an organization develops its ability to regenerate itself over and over as new and ever-challenging circumstances are confronted. Sikes, Drexler and Gant (1989) believed that a key concept of organizational development involved learning from action research and using that knowledge to support the organization's human systems.

Another theoretical framework, which could also provide and enhance the framework for this study, is stress theory. According to Cassidy (1999), the term stress is generally said to have come from the physical sciences in the seventeenth century, primarily in the work of Robert Hooke. His work focused on the design of physical

structures such as bridges and their strength in terms of the pressure they could withstand. In this context, a load was applied and the effectiveness of the structure to withstand the exertion of stress was a measure of its performance. Lazarus (1993), however, believed that the term stress could be found as early as the fourteenth century when it was used to mean hardship or adversity.

Despite the length of time that researchers have been dealing with the topic, stress remains a somewhat allusive concept. A review of printed materials has shown a wealth of materials on stress in different fields such as medicine, biology, biochemistry, social sciences, sociology, psychology, psychiatry, physiology, anthropology, ergonomics, etc. (Dodson, 1982).

The methodical investigation of stress began in the 1920s with the classic observations of Cannon (1929) of the bodily changes produced by emotions. Selye (1936) introduced his concept of stress as a general adaptation syndrome or a set of physiological reactions induced by a broad variety of environmental agents. The concept of stress has occupied medical, behavioral, and social scientists around the world and over the years has produced over 100,000 scientific articles, books and reviews (Warshaw, 1979).

Other researchers focused on stress in the family setting due to the depression and unemployment that was prevalent at that time (Angell, 1936; Cavan & Ranck, 1938; Komorovsky, 1940). Hill (1949) built systematically on these initial studies in his work in researching postwar family stress. From this research, he developed his ABC-X model. The ABC-X model is fundamentally a positivistic theory because its purpose is to identify causal relationships that specify deterministic patterns. Hill asserted that the A,

B, and C factors combine to cause or determine the X, or the amount of crisis in families. This model assumes that the variables operate in a relatively mechanistic, linear, and cause and effect manner.

In 1994, Burr and Klein reexamined the term stress and defined stress as a process that is interrelated with several other processes in a system. They believed that one way to conceptualize these processes is to identify several processes that occur in family systems when they are not in stressful situations. They believed that when family systems are not experiencing stress, there are fairly predictable repetitions or redundancies in the patterns of the daily routines and events. Family members interact with little difficulty, and the family systems are involved in processes of transforming inputs into outputs with relative ease. This theory also could be applied to an organizational setting. Just like a family employees interact with organizational systems to transform inputs into outputs, with relative ease when they are not experiencing stressful situations.

Kantor and Lehr (1975) stated that families transform inputs such as energy, time, and space into outputs such as meaning, affection, and power. Other inputs included behaviors, money, and information. Gross, Crandall, and Knoll (1980) and Paolucci, Hall, and Axinn (1977) identified additional family outputs as love, attention, discipline, growth, development, satisfaction, bonds, heritage, closeness, learning, and security.

According to Cassidy (1999), the majority of research describes three different models of stress, the stimulus model, the response model, and the transactional model. These are not concurrent models rather they reflect the evolution of recognition of the complexity of the stress process. Research on the stimulus model has focused on identifying the sources of stress in the external world (Brown & Harris, 1978, 1989;

Holmes & Rahe, 1967). The response model refers to the person's experience. For example, a person is described as suffering from stress. When this approach is used, an inference is that the person is stressed from an observation of symptoms such as irritability, lack of energy, sleeplessness, headaches, digestive problems, etc. This approach focuses on the consequences of stress in terms of psychological and physical health (Broome, 1989; Fisher & Reason, 1988).

Cassidy (1999) describes the transactional model as viewing stress as transactions between individuals and their environment. This model incorporates both stimulus and response perspectives as part of the process. According to Cassidy, over the past twenty years, the complexity of the stress process has been acknowledged by the acceptance among researchers of a transactional or process model of stress wherein demands and psychological processes are seen as parts of a complex, systemic process. Thus stress is now defined in terms of the fit between individuals and their world, where a lack of fit produces physical or psychological illness, or both.

After pondering existing research, I concluded that both organizational development and stress theory provided ideal theoretical frameworks within which to formulate and guide this study. Organizational development, with its diverse theories and its focus on releasing human potential within an organization, provides a solid foundation theoretical framework within which to formulate and research the topic of empowerment and occupational stress. Stress theory, with its multiple concepts and its focus on individuals and their interaction in response to their environment, also provides an equally acceptable theoretical framework within which to conduct this research project. While organizational development primarily focuses on human interaction with the work

environment, stress theory focuses on human interactions in both work and non-work environments. Thus using both theories as the theoretical framework provides breadth, depth, and valuable insights for formulating and conducting this study.

Research Questions

Stress has become a complex topic due to its far-reaching effects and I am aware that I could have chosen a number of questions to research. However, I decided to focus this research project primarily on answering the question, does empowerment, as measured by trust, encouragement, and enablement, affect occupational stress levels, as measured by occupational role adjustment, psychological strain levels, and the availability of personal coping resources? A secondary focus for the research project was to answer the question, are there significant differences in occupational stress, as measured by occupational role adjustment, psychological strain levels, and availability of personal coping resources based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title?

Null Hypotheses

This study explored the relationships between empowerment behaviors and occupational stress. The study also examined the differences between levels of occupational stress, as measured by occupational role adjustment, psychological strain, and availability of personal coping resources between males and females. Measures of empowerment behaviors and occupational stress were collected from members of The International Society for Performance Improvement (ISPI). Out of the research questions, the following null hypotheses were developed for the study:

- H₀1: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational stress levels of subordinates.
- H₀2: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational role adjustment of subordinates.
- H₀ 3: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and psychological strain levels of subordinates.
- H₀ 4: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and the availability of personal coping resources of subordinates.
- H₀ 5: There are no significant differences in occupational stress levels based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.
- H₀ 6: There are no significant differences in occupational role adjustment based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.
- H₀ 7: There are no significant differences in psychological strain based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.
- H₀ 8: There are no significant differences in personal coping resources based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.

Research Limitations, Delimitations, and Assumptions

For almost all research projects, limitations exist. The limitations, delimitations, and assumptions for this study are outlined below for the purpose of interpretation and replication of the study.

Limitations

The participants in this study represented a geographically diverse group of individuals whose backgrounds and educational experiences were varied. After careful

analysis and evaluation of the constraints imposed upon the study, I identified the following limitations:

1. The survey questionnaires were designed to collect self-reporting data and the study was limited by the willingness of participants to voluntarily answer questions regarding their perceptions of empowerment behaviors and occupational stress levels.
2. Even though a follow-up contact was conducted, the study was limited by the decision of some participants who chose not to participate in the study.
3. Data collection was limited to the survey questionnaires being mailed back using the United States Postal System. The United States Postal System does a great job, but occasionally mail could be misrouted or lost. Due to the coincidence, the events surrounding September 11th, 2001, which were harrowing for everyone, may have impacted the mailings connected with this study.
4. This study was limited by the ability to only generalize the findings of the study to the population of members of International Society for Performance Improvement (ISPI). Generalizing the results from this study to the general business population is of limited value.

Delimitations

In addition to the limitations previously mentioned, certain delimitations should not be overlooked. After carefully considering the constraints imposed upon this study due to the design of the study, its target audience, and the instruments selected, I identified the following delimitations:

1. The research sample consisted of members of the International Society for Performance Improvement (ISPI).
2. Members of only one organization were surveyed.
3. The data collection method was delimited to mailed questionnaires.

Assumptions

In the cover letter, participants were informed about the purpose of the study and were assured regarding confidentiality of their responses. In addition, a few basic assumptions were made regarding the possible relationship between empowerment and occupational stress levels. I identified the following assumptions upon which I based the study:

1. The selected sample audience accurately represented the total International Society for Performance Improvement (ISPI) members.
2. The responders honestly and accurately answered the questions on the self-report survey questionnaires.
3. The target audience would have an interest in the findings of the study and would, therefore, support it by completing and returning the questionnaires.
4. There would be significant differences in occupational stress, psychological strain, and availability coping resources between age, race, marital status, work schedule, education, seniority, work hours, and job title.
5. The Occupational Stress Inventory-Revised (OSI) questionnaire was a valid instrument for measuring occupational stress levels.
6. The Management Empowerment Assessment Direct Reports (MEADR) survey was a valid instrument for measuring empowerment behaviors of superiors.
7. The Demographic Sheet would collect the appropriate demographic data needed for the study.

Terms and Definitions

After reviewing the literature related to empowerment and occupational stress, a number of terms and definitions were frequently referenced in the literature and they were identified as being pertinent to this study. For the purposes of this research, the

following operational terms and definitions should be reviewed and understood for reviewing and analyzing this study.

1. ***American Psychological Association (APA):*** The American Psychological Association was established as a scientific and professional organization, which represented psychology in the United States. Psychology has been defined as the study of the mind and behavior. The discipline embraced all aspects of the human experience and functions of the brain. In every conceivable setting, the understanding of behavior has been the enterprise of psychologists (American Psychological Association, 2002).
2. ***Acute Stress:*** Acute stress has been defined as short-lived or infrequent episodes of stress. According to researchers, this type of stress generally poses little risk to the individual (Quick & Quick, 1984; Selye, 1974).
3. ***Change:*** Change has been defined as any driver that forced or offered opportunities for alteration, modification, variance, or making different in some way such as a transformation, transition, or substitution (Conner, 1993; Kanter, Stein, & Jick, 1992; Rothwell, 1996; Woodward & Buchholz, 1987).
4. ***Chronic Stress:*** Chronic stress has been defined as any stress, which is prolonged or any stress that is unresolved. Prolonged stress or chronic stress can cause the body to remain in a continual state of activation. Chronic stress also can increase the rate of wear and tear to biological systems.

Additionally, chronic stress can cause fatigue or damage, and the ability of the body to repair and defend itself can become seriously compromised. As a result of chronic stress, injuries, or diseases can escalate (Quick & Quick, 1984; Selye, 1974).

5. ***Coping Resources:*** Coping resources have been defined as any available means or abilities an individual possessed that can be used to deal with or overcome problems, difficulties, change, and/or situations (Cooper & Payne, 1988; Driskell & Salas, 1996; Marshall & Cooper, 1981; Osipow, 1998; Quick, Bhagat, Dalton & Quick, 1987).
6. ***Distress:*** Distress has been defined as an individual's maladaptive, detrimental, dysfunctional response (Quick & Quick, 1984; Selye, 1974).

7. ***Empowerment:*** Empowerment is believed to foster and encourage optimum performance of an individual through the use of a management system that provides for employees to manage how that work gets done (Briggs, 1999; Guillory, 1989; Guillory & Galindo, 1995).
8. ***Eustress:*** Eustress has been defined as an individual's adaptive, constructive, healthy response to a stressful situation (Quick & Quick, 1984; Selye, 1974).
9. ***Human Performance:*** Human performance has been described as actions such as performing a task, carrying out a procedure, solving a problem, or doing work or some other type of activity (Gilbert, 1978; Schein, 1969, 1990, 1992; Weisbord, 1978, 1990).
10. ***Job Stress:*** Job stress has been defined as the harmful physical and emotional responses that can occur when the requirements of the job do not match the capabilities, resources, or needs of the worker (Stellman, 1998).
11. ***Leader:*** A leader has been defined as a person who has commanding authority or influence such as a supervisor or manager in a workplace setting (Conner, 1993; Kanter, 1977, 1983, Kanter et al., 1992; Rothwell, 1994; Rothwell et al., 1998; Woodward et al., 1987).
12. ***Leadership Orientation:*** Leadership orientation has been defined as the frame of reference an individual uses as a leader or as a manager, to read or react to an organizational situation (Bolman & Deal, 1984, 1991).
13. ***Leadership Effectiveness:*** Leadership effectiveness is believed to involve an individual's ability to view organizational situations from a multiple perspective (Bolman & Deal, 1984, 1991) and an individual's ability to surround himself or herself with associates capable of providing additional perspectives (Bensimon, 1989).
14. ***National Institute for Occupational Safety and Health (NIOSH):*** The National Institute for Occupational Safety and Health (NIOSH) was established by the federal government as part of the U. S. Department of Health and Human Services as a regulatory agency and the agency was given clear distinction from the Occupational Safety and Health Administration (OSHA).

The National Institute for Occupational Safety and Health (NIOSH) was tasked with responsibilities for conducting research and making recommendations for the prevention of work-related illnesses and injury. NIOSH is located in the U. S. Department of Labor (National Institute for Occupational Safety & Health, 2001).

15. **Occupational Stress Levels:** Occupational stress levels was defined by Osipow (1998) as encompassing three dimensions: occupational role adjustment, psychological strain, and availability of personal coping resources.
17. **Occupational Stress:** Occupational stress was defined as the harmful physical and emotional responses that can occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Some researchers believe that job stress can lead to poor health and even injury (Cooper & Payne, 1988; Driskell & Salas, 1996; Marshall & Cooper, 1981; Osipow, 1998; Quick & Quick, 1984).
18. **Organizational Culture:** Organizational culture has been defined as a set of learned and shared assumptions about the norms (e. g. standards, rules) that regulate the behaviors of members of an organization (Burke & Hornstein, 1972).
19. **Psychological Strain:** Psychological strain has been defined as the internal or biochemical response to any perceived threat (Cooper & Payne, 1988; Driskell & Salas, 1996; Marshall & Cooper, 1981; Osipow, 1998; Quick & Quick, 1984).
20. **Stress:** Stress has been described as the nonspecific response of the body to any demand (Cooper & Payne, 1988; Driskell & Salas, 1996; Marshall & Cooper, 1981; Osipow, 1998; Quick & Quick, 1984). Stress also has been described as a process (Burr & Klein, 1994; Cassidy, 1999; Hill, 1949).
21. **Stressors:** Stressors were described as pressures demands to which an individual must respond (Cooper & Crump, 1978; Cooper & Marshall, 1976; Cooper & Payne, 1988; Driskell & Salas, 1996; Marshall & Cooper, 1981; Osipow, 1998; Quick & Quick, 1984).

Summary

This chapter addressed the changing world and the fact that stress could have become a major factor for individuals, especially at work. A literature review suggested that the emotional and physical health of individuals could be in jeopardy from coping with the many multiple, complex, and far-reaching changes. Stress related problems cost American businesses more than \$300 billion annually (Miller & Smith, 1997).

Predictions were that this amount could escalate annually. The overall purpose of this research project was to develop new knowledge that could help individuals more effectively deal with stress and to investigate the benefits of empowering employees through refined organizational interventions and leadership practices.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter examined literature relating to empowerment and stress. In addition, this chapter reviewed other related topics, including major drivers of change, occupational stress, psychological strain, coping resources, and leadership theories.

Major Change Drivers

According to Kotter (1990), the amount of significant, and often traumatic, changes that have dramatically impacted organizations, as well as the lives of individuals, has grown significantly over the past two decades and powerful macro-economic forces have created these changes. Globalization, regulation, deregulation, protectionism, regional economic slumps, takeovers, mergers, acquisitions, competition, diversification, product liability, product proliferation, downsizing, and declining profits were just a few of the factors, cited by Kotter that have impacted organizations and negatively affected its workers. Kotter and Heskett (1992) noted that massive changes, ever-advancing technologies, mergers, acquisitions, rightsizing, new policies and procedures, reorganizations, and constantly shifting duties and reporting relationships had created major stress for almost all workers. According to Lashbrook (1985) the scope and pace of change has become overwhelming and has become a major stressor in the workplace.

Cooper and Payne (1988) pointed out, however, that occupational factors were not responsible for all stress that individuals experienced. At the personal level, Kotter (1996) believed change had intensified dramatically for everyone. He cited the unsettling amount of individual change as evidenced by the alarming frequency of marriages, pregnancies, divorces, promotions, job changes, relocations, health problems, drug abuse,

retirements, and family strife in society. Kotter explained that personal stress for women involved juggling marriage, children, and careers. He believed that personal stress for men involved trying to be good husbands and fathers, while struggling on the corporate battlefield.

Rothwell, Prescott, and Taylor (1998) believed that besides changes in individuals' lives and at organizational levels, there were profound national and global transitions that were altering society and shaping the lives of future generations. They stated that as the world grew more complex, pressures continued to mount for individuals with increasingly higher demands on their personal coping abilities. Kotter (1996) predicted that these forces will grow even stronger over the next few decades. He predicted that individuals in the 21st century could experience greater changes than in any century that has gone before.

Miller (1984) stated that human beings were now entering a period of transition as significant as the transition from an agriculture society to an industrial society. He believed that whether it were labeled the information society or if it were given any other name, it would require a new set of management priorities and practices. He also stated that the relationship between the employee, the organization, and the manager, would be remade. He further noted these new relationships would be built on trust and personal responsibility. He predicted that personal responsibility, rewards for achievement, close relationships with respected peers, continual learning, and involvement in decision making would all be distinct characteristics of successful organizations in the future.

In the early 1970s, Toffler (1970) gave a name to this phenomenon of change. He called it exponential growth, which he described as the geometric doubling and

redoubling of change through rapid advances in society. Toffler also predicted that the results of change would be increased tension and disorientation in the lives of human beings. Enright (1984) observed that changes in life and work were coming faster and faster, and that every indication was that the pace of change would continue to increase. He believed that change caused obsolescence, which in turn caused increasing pain and anxiety for many individuals. He argued that change was rendering obsolete not only the existing equipment, tools, technology, and associated skills, but it was also rendering obsolete managerial skills and the ways in which organizations were managed. Other researchers argued that the current combined weight of volume, momentum, and complexity of change has no precedent and has rapidly expanded beyond the ability of humans to react or effectively respond (Beck & Cowan, 1996; Rothwell, Prescott, & Taylor, 1998).

Conner (1993) believed that regardless of age, position, wealth, status, motive, or desire, no one can adequately absorb life's inevitable transitions any faster than his or her own speed of change will allow. Speed of change, as defined by Conner, is the optimum rate at which an individual can assimilate transitions in his or her life. Conner provided a definition for assimilation as being the process used by individuals to adjust to either positive or negative implications of a major change. He argued that the high price of rapid assimilation can be reduced intellectual energy, increased psychological stress, and diminished physical stamina and health.

Stress, however, is not a new concept (Conner, 1993). Conner argued that stress in some form has always been present and individuals have always had to be able to cope. He further argued that people in ancient civilizations faced the challenge of

transition just as people do today. He concluded that life itself was almost synonymous with the concept of change.

Conner (1993) also believed that change encountered during previous eras was different. He further believed that change today could be larger in magnitude, could require a different approach for dealing with the change, the seriousness of implications could have increased, and the ability of humans to effectively respond could have been diminished. Conner pointed out that the volume, momentum, and complexity of change has continued to accelerate at an ever increasing and alarming rate.

According to van der Werff (2000, 2001) the concept of work itself was changing. He predicted that work during the 21st century would be about learning, not just producing. He also stated that the hierarchical business model developed early in the twentieth century, which may have worked when businesses were producing products based on raw materials in factories for stable, national markets, would not work sufficiently for delivering services based on ideas and information in rapidly changing, global markets.

van der Werff (2000, 2001) believed that personal accountability would be a major emphasis and whether an organization provided a service, a product, or a mixture of the two, workers would be held accountable, with more emphasis on results than on the ways in which they were achieved. He predicted self-organizing teams would be very important in the workplace and these teams would be formed with the knowledge, skills, and capabilities required for producing and delivering the desired results. van der Werff also predicted that virtual structures would become the norm for how businesses were organized and that workers would be as likely to be separated from their colleagues as to

sit next to them. He cited the large number of telecommuters and other home office professionals who he believed emphasized this trend. He also predicted that the concept of a company headquarters would become obsolete.

Additionally, van der Werff (2000, 2001) believed that the volume of technological changes would continually increase. He predicted that an avalanche of new technology would continue and these technologies would create a world that could not as yet be envisioned. He cited examples such as computers, faxes, cell phone, and the Internet, as technological advances that significantly impacted individuals, organizations, and society as a whole in recent years.

Technological Categories of Change

Noland (1973) echoed van der Werff's belief that technology had been and would continue to be a major force in creating new industries, generating jobs, and raising standards of living. Noland stated that as the industrial age evolved during the last century, one goal of technology was to find ways to reduce or eliminate physical demands for workers. He noted, however, that some technological advancements had, in many cases, de-skilled and made routine work that individuals previously took great pride in doing.

Noland (1973) also believed that in other cases the opposite had occurred. He believed that power and systems-centered organizational atmospheres have flooded workers with rapidly changing conditions to which they were in no way accustomed or equipped to effectively cope. He concluded that technology had continually changed the way in which individuals lived, businesses operated, and society functioned, and that technology would continue to change the world at an alarming rate. He predicted that

each technological revolution would create more change in shorter and shorter timeframes. According to van der Werff (2000, 2001) there are four major technological categories that will help shape the 21st century: biotechnology, computer, telecommunications, and nano-technology.

Biotechnology. van der Werff (2000, 2001) predicted that biotechnology would continue to play a very important part of the future due to major scientific breakthroughs. As an example of a recent scientific breakthrough, he cited June 2000, when the code DNA of the human genome, (the book of life), was mapped. He argued that due to this breakthrough research, each year a steady stream of new biotech drugs will be approved by the Federal Drug Administration (FDA) and that the effect of these drugs will be healthier and longer lives for most individuals.

Computers. Computers have played an important role in society, according to van der Werff (2000, 2001). He stated that computing power doubled every 18 months and he predicted that within the next 10 years holographic imaging would be sophisticated enough to send individuals to other places. He further predicted that computers will increasingly make decisions in every aspect of an individual's life, including both home and work, and that knowledge management will be crucial to business success as computers will continue to play a key role.

Telecommunications. Telecommunications, according to van der Werff (2000, 2001) will also play an important role in helping shape the 21st century. He believed that telecommunications will continue to impact society and will help change the way in which individuals lived and worked. He predicted that during the 21st century there will

be multiple satellite systems in operation and that phone calls will be free and they will be transmitted via the Internet.

Nano-Technology. Nano-technology, prior to the 21st century, was an unknown term (van der Werff, 2000, 2001). van der Werff defined “nano” as a Greek prefix used in the metric system and stated that it meant really, really small. He predicted that nano-technology will create the know how to scale motors down to the size of mosquitoes.

van der Werff (2000, 2001) also predicted that generators will be built that are the size of pinheads, and that gears will be created so small a microscope will be needed to view them. He also believed that these mini products will be found everywhere and that they will perform tasks that were unimaginable in the world of yesterday.

With these and other trends that have occurred and will continue to occur everyday, it appears to be a given that change would be a constant companion to all human beings. According to Bridges (1980), change will be constant and individuals will be required to continually react to change.

Normal Reactions to Change

Bridges (1980) believed individuals had basically four normal reactions to change; disenchantment, disorientation, disengagement, and disidentification. Woodward and Buchholz (1987) also identified four similar reactions; anger, confusion, withdrawal, and sadness or worry. They concluded these responses were by no means mutually exclusive and finite set of reactions to change. They also argued these were normal reactions and they should be expected. They predicted, however, that if an individual remained in any of these states any length of time he or she could become distressed and problems could develop. Woodward and Buchholz further predicted that the end result

could be an exhibition of dysfunctional behaviors. They stated that each of these reactions created stress and that individuals needed to be able to move through these reactions without becoming overly stressed.

Hampton-Turner (1992) also argued that individuals and organizations must learn to adapt to the demands of their environment and to successfully move through all phases of change. Others (Beer, Eisenstat & Spector, 1990; Bridges, 1980; Chambers, Grew, Herlihy, Rabb & Woloch, 1974; Cherniss, 1980; Drucker, 1992; Handy, 1989) argued that throughout history lack of adaptation has caused extinction of certain species.

Human Need for Control

Some researchers (Beer, Eisenstat & Spector, 1990; Bridges, 1980; Chambers, Grew, Herlihy, Rabb & Woloch, 1974; Cherniss, 1980, Drucker, 1994; Handy, 1989) argued that individuals seemed to adapt and to be more comfortable with change when their ability and willingness to change helped determine the outcome of events.

Hampton-Turner (1992) believed that need for control was a basic instinct that drove humans to dominate all other known life forms and that individuals exerted tremendous energy trying to understand their world so that they could control it.

According to Chambers, Grew, Herlihy, Rabb and Woloch (1974), humans have always had to struggle for some kind of control over their lives. Smith (1994) argued that humans being wanted to be in control of their lives. He believed there could be no worse feeling than sensing that other people or external circumstances govern what individuals do and when and how they do it. He also believed that when something or someone else controlled an individual's life, he or she could become unhappy, unproductive, and could lose inner peace. According to Smith, peace, productivity, and happiness are three

commodities that seemed to be in short supply because people felt that they were not in control of their lives.

Inside organizations, according to Long (1995), lack of control over work, the work place, and employment status were among the stressors individuals had to deal with, and the stress that subsequently occurred created critical health risk factors for some workers. Other researchers argued that employees who were unable to exert control over their lives at work were more likely to experience work stress and were, therefore, more likely to have impaired health (Sauter, Hurrell, & Cooper, 1989; Sutton & Kahn, 1984). These researchers identified heavy job demands, low control, or decreased decision latitude as factors that could lead to job dissatisfaction, mental strain, and cardiovascular disease. They defined job control as the ability to exert influence over one's environment so that it would become more rewarding and less threatening.

Israel, House, Schurman, Heaney, and Mero (1989) concurred that workers who had job control, and who had the ability to influence the planning and execution of work tasks, were less likely to experience job stress and reduced health, than workers who had little or no control over their work. They argued that inability to control or influence work factors created stress for the individual and stress was linked to documented incidences of cardiovascular disease as well as psychosomatic disorders, job dissatisfaction, and depression.

Stress Overview

According to Gibson, Ivancevich, and Donnelly (1988), stress meant an incredibly wide variety of things to different people. According to Yates (1979) almost every human had become familiar with stress. Yet the term had been so widely misused

that it had become too often subject to confusion and ambiguity. Driskell and Salas (1996) stated that the topic of stress has been approached by many researchers with trepidation because it was a difficult and often confusing topic.

The term stress first was used as a topic of scientific inquiry in the early part of the century in the work of Cannon (1929, 1935) and Selye (1936). They identified stress as an external force, which adversely affected a system. According to Selye (1976), a system could be an organization or an individual. He further defined stress as a nonspecific response of the body to any demand. Selye reported that the idea of stress as a problem emerged when a second-year medical student identified the syndrome of just being sick and attributed it to nonspecific manifestations rather than to a particular disease. He believed that these nonspecific manifestations caused specific biological reactions. Driskell and Salas (1996) defined stress as a psychological concept and as such it was not concrete because it could not be touched or perceived directly.

Ivancevich and Matteson (1980) defined stress as an adaptive response, mediated by individual characteristics and/or psychological processes that was a consequence of any external action, situation, or event (stressor) that placed special physical and/or psychological demands upon a person. Hogan and Hogan (1982) argued that stress literature had been bombarded with terminology and that every researcher must develop his or her own definition. In general, however, most researchers defined stress as the interaction between an individual and the environment in terms of a stimulus interaction, a response interaction, or a stimulus-response interaction (Driskell & Salas, 1996; Gibson, Ivancevich, & Donnelly, 1988; Kotter, 1996; Selye, 1980).

External and Internal Stressors

Selye (1956) argued that stress levels could rise and fall over time depending on the circumstances (stressors) a person encountered and his or her responses. Jorde (1982) believed that it was useful to clearly distinguish between the two types of stressors, which are external and internal. He believed that pressures from the outside world, from the environment, from a person's family, job, friends, government, etc. were examples of external stressors. He believed that various pressures or demands of an individual's internal environment, such as ambition, materialism, competitiveness, and aggressiveness were examples of internal stressors (Jorde). Quick and Quick (1984) argued that demands, whether physical (external) or psychological (internal), could become stressors to an individual and that the individual's response to these stressors was a stress response.

Some researchers believed that both internal and external stressors involved the same biological response (Pelletier, 1977; Selye, 1976; Welford, 1974). They also believed that internal stressors had a more intense effect on an individual than external stressors. The body's response to stressors, either external or internal, is believed by many researchers to be stress (Cannon, 1929; Pelletier; Selye, 1980; Welford; Yates, 1979).

Human Response to Stress

Most researchers have agreed that stress sets off an alarm in the brain (Cannon, 1929; Pelletier, 1977; Selye, 1980; Yates, 1979; Welford, 1974) and the body's initial response to this alarm involves a complex biochemical process. They believed that this biochemical process triggers reactions, such as increased blood pressure, heart rate, breathing rate, and increased blood flow from the body's extremities to the chest cavity,

which provides the body's vital organs with all the blood necessary to operate at peak capacity. They further believed that as this biochemical process takes place brain wave activity increases, extra supplies of blood are supplied to the head to support the maximum functioning of the brain, and the muscles flex in readiness for action.

Selye (1956) believed that alarm occurs when an individual recognizes the stressor, and changes take place in his or her central nervous system. He also believed that when the stressor is eliminated, either through removal or conquering it, the body attempts to return to its normal state. Selye argued that if the stressor continues, and if the body cannot return to its normal state, it will revert back to a state of alarm. He believed that prolonged stress results in wear and tear and that stress can eventually cause death.

Yates (1979) believed that the body's ramped-up stress response is essential for dealing with stressors. He also believed that this response (sometimes called the fight or flight response) is important because it helps individuals defend against threatening situations. Most researchers have agreed that all human beings responded in much the same way, regardless of whether stressors were encountered at work or at home (Pelletier, 1977; Selye, 1976; Welford, 1974).

Quick and Quick (1984) argued that not all stress was negative and that a stress response had one of two major outcomes: eustress or distress. They defined eustress as an adaptive, constructive, healthy response to a stressful situation. They argued that distress resulted when the response was maladaptive, detrimental, or dysfunctional. Quick and Quick stated that it was possible for individuals to face an unlimited amount of uncertainty and newness. However, they predicted that when the absorption (or

assimilation) threshold was exceeded, individuals would display signs of distress or dysfunction, such as fatigue, emotional burnout, inefficiency, sickness, and drug abuse.

Kieve and Kohn (1979) argued that individuals varied in how well they performed when they were experiencing excessive demands and high levels of stress. They believed that individuals have differing thresholds to seemingly similar situations. They further believed that many individuals only performed well when they were experiencing fewer demands and lower levels of stress. However, they concluded that individuals had to be operating at their optimum level of stress in order for them to effectively deal with stressors. If individuals were operating above or below this optimum level, they could experience the distress of overload or underload, both of which could result in reduced performance effectiveness (Quick & Quick, 1984).

Selye (1974) noted that distress was associated with some difficult problems such as tension, insecurity, and frustration. He believed that prolonged distress could lead to migraine headaches, peptic ulcers, heart attacks, hypertension, mental illness, and suicide. He believed that stress caused the body to perform adaptive functions in an attempt to return to a normal physiological state. Selye argued that as the number of stressful events increased, the body's arousal state would become longer and stronger. He further argued that the longer and stronger the body remained in this aroused state, the greater the likelihood of distress causing damage to the body.

Social observer and author Toffler (1970) predicted that the world would become turbulent due to the vast amount of change, overload of information, and the many decisions and choices that would have to be made. He believed that the results would be that individuals would become disoriented and confused because of their inability to cope

adequately with such a vast amount of change. Toffler was the first to describe the potentially debilitating effect of major change as *Future Shock*. He defined future shock as the shattering stress and disorientation induced in individuals by subjecting them to too much change in too short a time.

Beck and Cowan, (1996) and Rothwell (1994) believed that in organizations around the world, continual change was being poured onto the physically and emotionally saturated workers, who have already reached or exceeded their level of absorption. Toffler (1970) compared these individuals to saturated sponges. He believed that just as a saturated sponge cannot absorb additional water after saturation, an individual, who is physically and emotionally saturated, cannot effectively absorb additional change. Toffler argued that when an individual reached this saturation level, he or she could experience very high levels of stress and could become distressed.

According to Beck and Cowan (1996) and Rothwell (1996), saturation was one of many reasons that individuals were reeling from the volume and complexity of change. These researchers defined volume as referring to the number of changes individuals are required to face. They argued that the volume was higher now than at any previous point in human history. Beck and Cowan and Rothwell argued that momentum of change could be measured by analyzing how long individuals have to implement a change and the length of time before another change was necessary. These researchers believed that both of these time frames have been noticeably decreasing, and they believed this indicated an increased momentum of change.

Vinokur and Selzer (1975) found a positive correlation between the accumulation of stressful life events and self-reported tension and lack of adaptation, which could result

in dysfunctional behaviors such as depression and alcoholism. Dworkin (1987) stated that the medical community supported his belief that the role of stress was an intervening variable in a causal chain between environmental factors and the onset of disease and that disorders associated with stress were caused by chronic, long-term demands creating excessive physical or psychological strain. Dohrenwend and Dohrenwend (1974) found that the greater the number and the greater the severity of stressful life events, the greater the number and the greater the severity of physical and mental illness. Jorde (1982) also noted that distress was an adverse reaction to stress and distress could be expressed in the form of poor physical health.

Differences Between Short-term and Long-term Stress

According to Selye (1936, 1956, 1974, 1980), there were important distinctions between short-term and long-term stress. Selye defined short-term stress as a situation in which the body became sensitized, alerted, and responded, after which the biological functions returned to a normal state. Yates (1979) believed that the body could make general adjustments when any change threatened to go too far, and that the body had numerous mechanisms to assist it in returning to a normal steady state. Most researchers agreed that short-lived or infrequent episodes of stress posed little risk (Pelletier, 1977; Selye, 1976; Welford, 1974; Yates).

Yates (1979) described long-term stress, sometimes called killer stress, as involving increasingly higher levels of prolonged and uninterrupted stress. He believed that the body's system stayed hyped up and never fully returned to its previous baseline levels of activity. Yates further believed that gradually over a period of time, the body's

baseline stabilized at higher and higher levels so what was normal before increased and a new norm for the body was established.

For example, an individual's normal heart rate could have been 70 beats per minutes but with prolonged stress, the individual's heart rate, over time, could have increased to a normal heart rate of 80 beats a minute (Yates, 1979). In this scenario, even after the stress is over, the heart beat never returned to the original baseline but stayed at the higher level. This process could repeat itself over and over as additional stress is experienced and each time a higher baseline is established. Ultimately, fatigue or damage could result and the ability of the body to repair and defend itself could be seriously compromised. As a result, the risk of injury or disease could be escalated (Yates).

Effects of Stress on Health

Numerous studies (Friedman & Rosenman, 1974; Selye, 1976; Yates, 1979) linked stress to heart disease. According to Yates (1979), heart disease did not become a major health problem until the beginning of the 20th century. He believed that individuals who live hard-charging, competitive, aggressive lifestyles were more likely to be a candidate for a heart attack. Yates conceded that it was common knowledge that there were other factors that contributed to heart disease such as high levels of cholesterol, poor diet, hypertension, obesity, heredity, inactive life style, diabetic condition, and heavy cigarette smoking. However, he believed that stress had also become a major contributor to poor health.

The research of Friedman and Selye, as reported by Yates (1979), has provided considerable evidence of a direct relationship between stress and heart disease. Yates also reported that stress has been linked to hypertension and cancer, although these links were

not as yet as widely supported by scientific research as the link between stress and heart disease. Additionally, according to Yates, there were suspected links between stress and ulcers, diabetes, backaches, allergies, arthritis, and sexual dysfunctions. He believed that when stressed employees were ill, the organization was impacted in negative ways, such as an inability to remain productive and competitive in a global marketplace.

Effects of Stress on Human Performance

As research began to document the effects of stress on human performance (Basowitz, Persky, Korchin, & Grinker, 1955; Lazarus, Deese, & Osler, 1952; Postman & Bruner, 1948), stress moved from under the field of medicine and into the field of psychology. Janis and Mann (1977) defined a stressful event as any change in the environment that typically included a high degree of unpleasant emotion, such as anxiety, guilt, or shame, and normal patterns of information processing were affected.

According to other researchers, there was a potential for stress when an individual perceived a situation as presenting a demand that threatened to exceed an individual's capabilities and resources for meeting and dealing with it (Cox, 1988; Goleman, 1980; McGrath, 1976). Additionally, if an individual believed that conditions were such that there was a perceived substantial differential in the rewards and costs from meeting the demand versus not meeting it, the individual would become stressed (Cox; Goleman; McGrath). Meichenbaum and Turk (1982) referred to stress as any factor, usually outside of the body that required some reaction or change of behavior.

Psychologists Maddi and Kobasa (1984) took a slightly different approach to the study of stress. They studied individuals who had experienced high stress but who had low levels of illnesses. They found that these individuals had three characteristics in

common; commitment, control, and outlook or perception. Maddi and Kobasa believed that people lacking in commitment found things boring or meaningless and they were not involvement in the tasks they were required to do. They argued that people who lacked belief felt they could not control events in their life and they acted as if they were passive victims of forces beyond their control. Maddi and Kobasa also argued that people who felt threatened would think it was natural for things to remain stable and would fear the possibility of change because it had the potential to disrupt their comfort and security.

Stress, according to Mitchell (1977), has become a major problem in the contemporary United States. He believed that it negatively affected the daily lives of millions of Americans and that it caused a bewildering array of physiological, and social malfunctions. Driskell and Salas (1996) concluded that the impact of stress on performance was now greater than at anytime in our history.

Costs of Stress

Driskell and Salas (1996) believed that one outcome or cost of stress was inefficiency at work and that highly stressed workers were not effective at work because stress robbed them of the ability to be productive. In addition to the cost to an organization from stressed employees, Frew (1977) noted that the cost of stress was also being paid in terms of deterioration of individuals' personal lives. He believed that stress caused a reduction in the quality of interpersonal relationships with families and friends and left an individual tired, lifeless, and disinterested in life. He further believed that mood and sleep disturbances, upset stomachs and headaches, and disturbed relationships

with family and friends were examples of stress-related problems, which could be quick to develop among stressed individuals.

Mitchell (1977) estimated that on an economic level, the effects of stress had cost the nation over \$100 billion annually. Ivancevish and Matteson (1976) estimated that the total cost of distress was approximately 10% or more of the United States gross national product. He also believed that stress-related maladies were on the rise.

Occupational Stress and Psychological Strain

Since the inception of the term stress, many books, articles, and studies have been written about the constant flow of stress and the impact of stress on systems (Spielberger, Reheiser, Reheiser & Vagg, 1999; Stephens, 1984; Surtees & Wainwright, 1998).

Systems, as defined by Stephens, could be either a human being or an organization. Other researchers believed that by their very nature, organizations were open dynamic systems characterized by continuing processes of input, transformation, and output (Kahn, Wolfe, Quinn & Snoek, 1964). They also believed that as an open social system, the organization was defined and its boundaries determined by the relationships and patterns of employee behaviors, which facilitated continuation of organizational processes. These researchers believed that an organization's existence was totally dependent upon its employees' motivation and ability to perform the behaviors required to maintain required organizational cycles.

Many researchers believed that the whole nature of work was being transformed due to major changes in the world and in society (Beehr & Bhagat, 1985; Davis, 1979; Greenberg, 1984; Martin & Schumerhorn, 1983; Sethi & Schuler, 1984; Tung & Kock, 1980; Yates 1979). They argued that work was becoming more technological and

required different experience, education, and attitudes from workers. They argued that the rapid changes taking place throughout all phases of society had put employees on an ever upward, ever tightening spiral of new demands and new adjustments and that this spiraling world of change had created unprecedented stress in the workplace.

Some researchers believed that as organizations were being pushed to further reduce costs, improve the quality of products and services, locate new opportunities for growth, and increase productivity, workers were continually forced to cope with new demands in environments of uncertainty and ambiguity (Antonovsky, 1979; Aspinwall & Taylor, 1997; Bardwich, 1991; Beehr & Newman, 1978; Carnevale, 1991; Conner, 1993; Diamond & Alcorn, 1985; Glass, Reim & Singer (1971); Ivancevich, Matteson, & Richard, 1985; Senge, Roberts, Ross, Smith & Kleiner, 1994). They argued that this constant change has created long term stress for some workers and has adversely affected the financial resources of an organization due to the tendency, over the past decade, to place legal responsibility on the organizational for the emotional and physical well-being of its employees (Ivancevich et al.).

Some researchers (Adams, 1980; Cohen, 1988; Cooper & Crump, 1978; Cooper & Marshall, 1976; Quick & Quick, 1984) believed that organizational stress was created from stressors experienced by its workers. They defined organizational stress as the general, patterned, unconscious, mobilization of the individual's energy when confronted with any organizational or work demand.

Importance of Work to Individuals

Warshaw (1979) stated that to comprehend fully the genesis of stressors in the work setting one needed an understanding of what work meant to individuals. Frew

(1977) argued that an individual's identity was so strongly connected with what he or she does that his or her job could become a major source of either satisfaction or dissatisfaction, and this feeling, either positive or negative, could spill over into their personal lives. He believed that there was a complicated and interconnected work-non-work existence in which each component of an individual's life directly influenced the other. He also noted that there was no simple dividing line between work and non-work. Other researchers also agreed that work played a powerful role in people's lives and believed that work exerted an important influence on their well-being (Cooper & Payne, 1988; Long, 1995; Yates, 1979).

Warr and Wall (1975) argued that work was a central part of a person's life, a central part of his or her identity, and a central part of the society in which the individual lived. Other researchers acknowledged that work fulfilled a number of basic human needs and that occupational life was organized in many ways to satisfy human needs for companionship, achievement, and sense of purpose (Argyris, 1964; Banet & Hayden, 1977; Emery & Trist, 1960, 1969, 1973; Gilbert, 1978; Herzberg, 1966; Katz & Kahn, 1978; Morse & Weiss, 1955; Negandhi, 1975; Warshaw, 1979). Lawless (1972) believed that it was through his or her job that an average person related to the society in which he or she lived. He concluded that the job provided a means of satisfying a person's many social needs such as prestige and companionship.

Since the 1960s, paid work has occupied an increasing larger proportion of most people's lives, and although employment has been challenging for many individuals, it has also been a tremendous source of stress to others (Long, 1995; Yates, 1979). Both researchers concluded that as work makes more and more demands on time and energy,

individuals could be increasingly exposed to both the positive and negative aspects of employment. Newspaper headlines worldwide have expressed increased concern about the detrimental effects of work stress (Long, 1995). Long reported that the United Nations World Labor Report attributed the source of occupational stress to work environments that were unstable, impersonal, and hostile. Other researchers (Lazarus, 1966, 1991; Lazarus & Launier, 1978; Locke & Taylor, 1990) have also expressed concern about the detrimental effects of work stress.

Allcorn and Diamond (1997) concluded that organizational change and the interpersonal world of work were stressful. They believed that stress and strain were universal experiences in the life of every organization and each individual employee. They argued that stress in the work place has been created by uncontrollable, unpredictable, and often ambiguous events. They further argued that interactions of employees with these events could be distressing because they could perceive them as threatening their security, self-esteem, and well-being.

Job Stress

Beehr and Newman (1978) believed that the work environment within a company provided an abundance of stressors and they defined job stress as a misfit between the worker and the work environment. They further described job stress as a situation where job-related factors interacted with the worker to change, either disrupted or enhanced, his or her psychological and/or physiological condition to the extent that the person was forced to deviate from his or her normal functioning.

Kahn, Wolfe, Quinn, and Snoek (1964) discussed job stress as being created by unclear expectations (role ambiguity) or conflicting expectations (role conflict) between a

worker and an organization. They believed that any worker regardless of his or her position in the organization could experience stress that could escalate to distress. Osipow and Spokane (1983) also believed stress was involved in all jobs, among all occupational fields and levels, within an organization.

Other researchers believed that when stress escalated to distress, work overload, poor working conditions, role conflict, and ambiguity was primarily responsible (Cooper & Marshall, 1976; Corlett & Richardson, 1981; Goldberg & Novack, 1992; McGuire, 1999). Some researchers argued that when there was a poor fit between characteristics of the job and characteristics of the person, the employee's well-being was reduced (French, Caplan, & Van Harrison, 1982; Klein, 1981).

According to French, Caplan, and Van Harrison (1982) signs of negative stress could be busywork, absenteeism, denial, illusion, or sub-par work. Other researchers concluded that symptoms of distress could manifest into job dissatisfaction and associated personnel problems, which could include reduced productivity, increased job turnover, and premature retirements (Alluisi & Fleishman, 1982; Burke, 1987; Cedoline, 1982; Chadwick-Jones, Nicholson & Brown, 1982; Rosch, 1984; Saffer, 1984).

Driskell and Salas (1996) argued that a large number of jobs are high-stress, and have high-demand performance environments. Some of these settings included aviation, military operations, emergency medicine, mining, diving, parachuting, bomb disposal, police work, and fire fighting. They argued, however, that even in everyday settings that appeared to be unstressful, such as working in an office, there could be many stressors that could disrupt performance.

Organizational Stressors

Many researchers concluded that organizational stressors could be classified into four primary categories: task, role, physical, and interpersonal demands (Adams, 1980; Cooper & Crump, 1978; Cooper, Sloan & Williams, 1988; Glass & Singer, 1972; Glass, Reim & Singer, 1971; Hanson, Larson, & Snowdon, 1976; Ivancevich & Matteson, 1976; Quick & Quick, 1984; Weiss, 1971). These researchers defined task demands to include deadlines and decision-making responsibilities of the individual. They argued that role demands included others' expectations of the individual's behaviors as well as the confusion often associated with work requirements. They discussed physical demands as including extreme temperatures and the design of the work environment. They further believed that interpersonal demands included dealing with social status incongruence and dealing with abrasive personalities at work. Many researchers (Kaplan & Norton, 2001; Karasek, 1979; Karasek, Baker, Marxer, Ahlborn, & Theorell, 1981; Karasek, Schwartz & Theorell, 1982; Quick & Quick, 1984) agreed that any or all of these stressors could elicit a stress response from the individual.

Six job conditions that could cause worker stress were identified by the National Institute for Occupational Safety and Health (NIOSH) (2002) and included such things as workload, infrequent rest breaks, long work hours and shift work, hectic and routine tasks with little or no inherent meaning, lack of utilization of workers' skills, and little or diminished sense of control. Managerial styles that included lack of participation by workers in decision making, poor communications, and lack of family friendly policies, were also cited by NIOSH, as conditions that contributed to job stress.

Additionally, the National Institute for Occupational Safety and Health (NIOSH) (2002) identified interpersonal relationships, which included poor social environment and lack of support from coworkers and supervisors, as job conditions that could create job stress. NIOSH also identified work roles, including conflicting or uncertain job expectations, too much responsibility, and too many hats to wear, as conditions that could create job stress. Work roles including conflicting or uncertain job expectations, too much responsibility, and too many hats to wear, as conditions that could create job stress were identified by NIOSH as contributors to occupational stress. Career concerns, which included job insecurity, lack of opportunity for growth, advancement, or promotion, and rapid changes for which workers were unprepared, was cited, by the NIOSH, as a condition that was related to job stress. The last condition identified, by NIOSH, as potentially leading to job stress was environmental conditions, which included unpleasant or dangerous physical conditions such as crowding, noise, air pollution, or ergonomic problems. The National Institute for Occupational Safety and Health concluded that any one or more of these conditions could lead to high job stress.

Quick, Bhagat, Dalton, and Quick (1987) coined the term high stress to describe both stressful conditions (stressors) and an individual's reaction to these stressors (strain, or stress responses). They believed that high stress involved increased work stressors, which automatically increased the incidents of various strains (physical, physiological, and psychological). They further argued that these strains automatically increased the risk of an individual experiencing negative outcomes. They believed that one of the most serious negative consequences from high stress was heart disease.

According to Quick, Bhagat, Dalton, and Quick (1987) the interpersonal environment of an organization, particularly from the standpoint of management-subordinate and inter-professional relations, played a critical role in determining the level of stress in the organization. Their research into organizational factors related to stress and burnout resulted in identification of various factors associated with work stress. They reported that the most prominent of these factors involved supervisory style and support, level of administrative support, the balance between authority and responsibility, degree of discretion over the work being performed, person-job fit, and the conflict resolution process in a work group. Additionally, they believed that these factors should be regarded as stressors, events, or conditions that have the potential for triggering a stress response in individuals. They argued that the challenge facing organizations today was how to establish a climate or culture, and develop leadership behaviors that would reduce what they considered to be rampant organizational stress.

Trust, participation in decision making relevant to the work being performed, excellent communications, and commitment to collaboration were cited by Quick, Bhagat, Dalton, and Quick (1987) as crucial management behaviors that could lead to reducing stress levels. They stated that management behaviors directly affected the participation of subordinates or the perception of subordinates on the amount of input they have in goal setting and decision-making, and their feelings of control as it relates to changes. They further argued that involvement and consideration of the ideas of employees in setting goals and implementing changes were important to minimizing stress within the organization. These managerial behaviors also could lead to an increase in the availability of personal coping resources of employees. Being able to cope is

important factor in dealing with stress because in recent years, many researchers have acknowledged that an individual's well-being could be influenced, not only by the amount of stress experienced, but also by how well he or she coped. (Aldwin, 1994; Antonovsky, 1979; Holroyd & Lazarus, 1982; Lazarus & Launier, 1978; Nunnally & Bernstein, 1994; Thompson, 1981).

Coping Mechanisms and Personal Resources

Coping has been defined as a means of dealing with stress created by both internal and external stressors (Cohen, 1988). Cohen further defined coping as any effort to manage internal or external demands, which stretched or exceeded a person's resources. Cox (1978, 1988) stated that coping usually represented either an adjustment to the situation or an adjustment of the situation. Cooper and Payne (1988) defined coping in terms of realistic thoughts and actions that helped solve problems confronting the individual.

Ardell (1986) argued that stress responses could tax an individual's coping resources. He argued that the mind, emotions, and spirit were integrated and inseparable. He further argued that individuals exhibited both behavioral and psychological responses to stress. When faced with stress, the body's defenses become mobilized, which Selye (1956) defined as a general adaptation syndrome. Selye (1980) also noted that general adaptation syndrome occurred in three stages: alarm, resistance, and exhaustion.

Many researchers (Aldwin, 1994; Brandstadter & Renner, 1990; Dawkins, 1982, 1989; Miller, 1979; Pearlin & Schooler, 1978; Sethi & Seligman, 1993) believed that characteristics including personalities, resources, beliefs, and cognitive abilities were the strongest determinants of how well an individual coped with stress. They also believed

that these characteristics, along with situational factors, determined the extent to which individuals coped with stressful and traumatic experiences.

Transformational Coping

Meichenbaum and Turk (1982) stated that coping could take the form of intellectualizing, maintaining detachment, or simply not thinking about an event. Maddi and Kobasa (1984) identified two methods of coping. They called the first and most effective method transformational coping. Transformational coping involved altering the events so that they were less stressful. To decrease the stress of an event, an individual interacted with the event, thought positively about the event, and acted decisively toward the event.

Regressive Coping

The other method, according to Maddi and Kobasa (1984), was regressive coping, which they believed was less effective. An individual using regressive coping would think pessimistically about an event and act evasively to avoid contact with the situation. They concluded that a combination of personality characteristics (commitment, control, and challenge) that they called hardiness helped an individual cope with stressful life situations in a way that prevented strain (stress), which could lead to illness.

Transactional Models of Coping

Transactional models of coping (Abramson, Seligman & Teasdale, 1978; Aldwin, 1994; Aspinwall & Taylor, 1997; Hobfoll, 1989; Holahan & Moos, 1991; Lazarus & Folkman, 1984; Rose, 1969; Schaefer & Moos, 1992) focused on the interaction of characteristics of the person and the stressor, and emphasized the importance or the meaning of the stressor. Lazarus and Folkman believed that an individual's interpretation

of an event determined how he or she responded in terms of emotional reactions and coping efforts. Transactional models assumed that the outcomes of stressful encounters were determined by many elements, including personality, world views, social support, socioeconomic status, preexisting physical and psychological adjustment, and previous experience (Aldwin; Aspinwall & Taylor; Hobfoll; Holahan & Moos; Lazarus & Folkman; Schaefer & Moos).

Process Theory for Coping

Campbell and Fiske (1959) presented a process theory for coping. This theory emphasized the process by which a person and situational factors combined to influence coping and the mechanisms by which coping, in turn, influenced stress and well-being. A central assumption to this theory was the recognition that stress experienced by the individual produced negative impacts on his or her well-being and motivation. Duval and Wicklund (1972) believed that this motivation was reflected in coping, which was directed toward the person and the situational factors that had caused the stress. They argued that if attempts to alter these factors were successful, stress would be reduced and well-being would be improved.

Managing Occupational Stress

Kotter (1996) believed that the magnitude of change today could prompt a doom-and-gloom vision, or it could be seen as an opportunity for a fundamental shift in how we as humans define ourselves, how we identify where we were going, and how we accomplish our goals. Because of the seriousness of today's change-related problems and the great potential for individual and organizational opportunities, some researchers

believed that it has become critical that we learn how to more effectively assimilate major transitions (Case, 1996; Kotter, 1990).

Frew (1977) believed that mismanagement of organizational stress produced individual strain and distress, which resulted in low productivity and poor quality and that it was detrimental to an organization struggling to remain competitive. Frew believed, on the other hand, that the effective management of organizational stress resulted in more efficient organizational functioning and reduced costs. Kotter (1996) believed that those who were in positions of formal or informal influence, (leaders), must lead the way so that outdated methods for coping with change could be cast aside and new behaviors and procedures could be embraced.

Leadership Theories

Mintzberg (1973) stated that the responsibility for the active pursuit of the developing an organization's resources resided with its management. Barnard (1968) and Bass (1990) also echoed this belief. Mintzberg predicted that apathetic or passive leadership on the part of management would lead to decay and decline of the organization. Some researchers argued that the development of employees was a complicated undertaking, and leadership qualities and leadership styles that helped employees effectively deal with stress must be identified (Barnard; Bass; Bass & Avolio, 1990, 1993; Mintzberg).

Leadership Trait Theories

According to Stogdill (1948, 1974), for centuries people have asked what are the characteristics of a good, powerful, and effective leader. Stogdill believed that many individuals have thought that if they knew the secrets of leadership they could copy them

and, in doing so, they could obtain for themselves the fruits and advantages that great leaders enjoyed. Stogdill reported that initial investigations of leadership described leaders as individuals endowed with certain personality traits, which constituted their abilities to lead. These studies investigated individual traits such as physical characteristics, intelligence, birth order, socioeconomic status, and child-rearing practices. Most of the findings were inconclusive but some of the studies did show that leaders were taller than followers (Stogdill, 1948,1974).

Bass (1985, 1990) concluded that defining leadership was an impossible task and that there were as many definitions of leadership as there were persons who have attempted to define it. He ultimately concluded that leadership appeared to be a rather sophisticated concept.

Stogdill (1974) identified what he believed were six categories of personal factors associated with leadership. These factors included capacity, achievement, responsibility, participation, status, and situation. Stogdill stated that such a narrow characterization of leadership traits was insufficient. He concluded that the findings suggested leadership was not a matter of passive status and it was not merely something that a leader possessed. Stogdill argued that a person does not become a leader by virtue of the possession of some combination of traits.

The role of leadership, according to Stogdill (1974), stems from the interaction of group members and it cannot be understood apart from the group. He stated that in any group, an individual must be identified to fulfill the leadership role or the group will not survive. Stogdill believed if there was not a designated leader, the lack of achievement of its purpose and lack of membership satisfaction would threaten the existence of the

group. Stogdill cautioned that leadership belonged to the group and not to the individuals. He believed that to seek leadership by attempting to identify traits of a leader was searching in the wrong direction.

Bolman and Deal (1991) determined that leading and managing were distinct and different skills but they concluded that both were equally important. They believed that organizations that were over-managed and under-lead would eventually lose any sense of spirit or purpose. They also believed that poorly managed organizations with strong charismatic leaders would temporarily succeed but they could crash shortly thereafter. Bolman and Deal argued that the challenges of modern organizations required the objective perspective of the manager as well as the brilliant flashes of vision and commitment provided by wise leadership.

Scientific Management Theory

In the early 1900s, one of the most widely recognized theorists on management was Frederick Taylor (1911). Although Taylor was perhaps one of the most controversial and misunderstood theorists of the Industrial Age, many of his theories and principles helped shape the thinking of what is known today about organizational management (cited by McGregor, 1960).

According to Taylor (1911), the basis for increasing productivity was technological in nature. The scientific theory (or classical theory as it was sometimes called) demanded that managers enforce pre-established productivity criteria to meet fixed goals. Consistent with the industrial underpinnings of this theory, Taylor also developed studies about time and motion that involved analyzing tasks and improving the efficiency of how work was accomplished.

The context for Taylor's work (Kanigel, 1997) was established from an address delivered by President Roosevelt to a gathering of governors at the White House. In this address, Roosevelt called for national efficiency and a search for better, more competent men, at not only the level of presidents of companies but down to household servants. Roosevelt's address was based on a need for increased productivity for supporting World War II efforts.

Taylor's principal objectives (as reported by Kanigel, 1997) were to secure maximum prosperity for the employer and for the employee, through development of each to their optimum efficiency. Taylor believed that through scientific management the fundamental interests of both the employee and the employer could be achieved and he predicted that the employee would receive higher wages and the employer would have lower labor costs. Taylor's management principles included clear delineation of authority, responsibility, separation of planning from operations, incentive schemes for workers, management-by-exception, and task specialization (Kanigel).

In the concept of organizational work, work design, work measurement, production control, and other functions were clearly identified by Taylor (1911). This delineation of functions helped change the nature of management and the structure of the organization. Before scientific management, such departments as work-study, personnel, maintenance, and quality control did not exist (Spender & Kijne, 1996).

People were considered components of the machine system and were viewed as part of the overall system in Taylor's model (cited in Kanigel, 1997). Taylor (1911) believed that managers had to manipulate employees into producing. According to Kanigel, Taylor believed that the way to enhance productivity was to improve work

methods and techniques. Taylor's time studies were undertaken to determine how long it took specific work activities to occur. Taylor theorized that if workplaces were rationally organized, the result would be more efficiency and productivity. In his model of management, managers were supposed to be divorced from human affairs and emotions (cited in Kanigel).

According to McGregor (1960), unscrupulous managers implemented only part of Taylor's model and created workplaces that required adjusting to an unrelenting and inflexible management style. In these workplaces, managers were authoritarian, and they lead by intimidation. Organized labor considered Taylor a slave driver whose purpose was to destroy the working man's health and rob him of his manhood. To management, Taylor was an eccentric and a radical person because he helped raise the wages of common laborers by approximately 33%. Despite these perceptions, Taylor's contributions cannot be ignored because many managers continued to use many of his theories during the twentieth century and are still using them today (Wrenge & Greenwood, 1997).

Humanist Leadership Theory

In late 1920s, Mayo (1945, 1960) developed a contrasting point of view about how work was best accomplished. His theory was called the humanist theory. He believed that, along with work-method improvements, consideration should be given to the people who actually performed the work. Mayo reasoned that the role of a leader was to attain goals by providing workers with opportunities for growth and development. He believed productivity improved if workers provided input and had a voice in decision-making.

The most important aspect of Mayo's work (cited in Trahair, 1984) was the discovery of the social man and the need for this theory in the work place. Mayo found that workers acted according to sentiments and emotions. He argued that by treating workers with respect and trying to meet their needs productivity could be increased.

Mayo's research was conducted at Western Electric's Hawthorne Works and took place from 1927-1932 (Trahair, 1984). Through the Hawthorne project, Mayo was able to provide concrete evidence to support his theory that was that the lack of attention to human relationships was a major flaw in other management theories (Riegly, 1995). During this research, Mayo was able to document evidence, which showed that employees reacted better when they had good relationships with the management with whom they worked. Mayo's work helped to set the stage for Abraham Maslow's needs theory (Mayo, 1945).

Hierarchy of Human Needs

Maslow (1943,1954) started his research from a belief that all human beings have a variety of needs, some more fundamental than others. He believed that the most basic needs were inborn in human beings, and that they had evolved over tens of thousands of years. He theorized that human needs could conceptualized as a ladder and that unfulfilled needs lower on the ladder would inhibit an individual from moving upward to the next level. Maslow also pointed out that the hierarchy was dynamic and the dominant need was always shifting either upward or downward.

According to Maslow (1954), the first need was the biological or physiological need, which included such fundamental items as air, food, drink, shelter, warmth, sex and sleep. The second need dealt with safety and included such needs as safety, protection

from elements, security, order, law, limits and stability. Need for love, affection, relationships, and belonging were included in Maslow's third need. The fourth need dealt with esteem needs and included self-esteem, achievement, mastery, independence, status, dominance, prestige, and managerial responsibility.

Cognitive needs such as knowledge and meaning were included in the fifth need identified by Maslow (1954). The highest need, self-actualization, dealt with realizing personal potential, achieving self-fulfillment, and seeking personal growth. It is interesting to note that Maslow's hierarchy followed the cycles of life development.

Maslow's (1954) model was based on the belief that only when the lower order needs of physical and emotional well-being were satisfied could individuals deal with the higher order needs of influence and personal development. Maslow's theory held the premise that thwarting of needs was usually a cause of stress, and was particularly so at the self-esteem level. Maslow's theories regarding self-actualization and work, customer loyalty, leadership, and the role of uncertainty painted a picture of today's digital age that was profound, according to Stephens and Heil (1998). Maslow's hierarchy of needs model remained valid over the years as a basic tool for understanding human motivation and as a platform upon which to develop leadership strategies (Stephens & Heil).

Although Argyris (1957) did not base his ideas directly on Maslow's need hierarchy, his views were similar. He argued that individuals have basic self-actualization trends that develop in specific directions as they mature from infancy to adulthood. He believed that these directions moved from a high level of dependency on others to a high level of independence. He further argued that as individuals matured they moved from a

narrow focus to a broader focus of skills and interests, and developed from low levels of self-awareness to higher levels of self-awareness.

Spiral Dynamics

Beck and Cowan (1996), whose work was based on research by Graves, developed a theory entitled Spiral Dynamics in which they believed that humans evolved through levels (similar to Maslow's hierarchy) and developed coping mechanisms based on their current level of evolution. Beck and Cowan believed there were five important constructs to human nature. They believed that human nature was not static, nor was it finite because human nature changed as conditions of existence changed.

Beck and Cowan (1996) believed that although new systems were forged, older systems remained. They also believed that when a new system or level was activated, individuals changed their psychology and rules for living to adapt to the new conditions. They described this evolution in terms of double helixes, one that represented the level of evolution, and the other that represented the coping mechanisms individuals develop to deal with that level of evolution.

Another important construct to their theory (Beck & Cowan, 1996) was the belief that human beings lived in a potentially open system of values, with an infinite number of modes of living available. They argued that there was no final state to which all humans must all aspire. Beck and Cowan believed that individuals, companies, or entire societies would respond positively only to those managerial principles, motivational appeals, educational formulas, and legal or ethical codes appropriate to their current level of existence.

A critical part of this theory (Graves, 1970), which was also supported by the

work of Csikzentmihalyi (1993), was the belief that humans possessed within themselves the capacity to exist at different levels of psychological development and they had the ability to add a new level. Graves did not believe that one level was better than another, but he believed that each level reflected different perspectives on what the world was like and the degree of complexity found in it. The development of human beings, according to Graves, was an unfolding or emergent process marked by progressive subordination of older behavioral systems to newer, higher order behavioral systems. He argued that as mankind evolved to higher levels of existence, new coping mechanisms had to be developed in order to effectively address the issues at that level.

Job Satisfaction Theory

Ability to recognize what motivated each individual to be productive in the workplace has been identified as a crucial component of leadership (Herzberg, Mausner, & Snyderman, 1959). Herzberg, who has been called the father of job enrichment, theorized that employee satisfaction depended on two sets of issues. He labeled these issues as hygiene and motivators and he believed that only after hygiene issues have been addressed could motivators create job satisfaction among employees Herzberg (1959, 1966).

According to Herzberg (1959, 1966), hygiene issues were related to the work environment, and they included such things as company policies, supervision, salary, interpersonal relations, and working conditions. He further theorized that hygiene issues cannot motivate employees but they could minimize dissatisfaction. Herzberg concluded that the opposite to job satisfaction was not job dissatisfaction, but the lack of job satisfaction. The opposite of job dissatisfaction was not job satisfaction but a lack of job

dissatisfaction. In other words, he believed that job satisfaction and job dissatisfaction did not represent opposite ends of a continuum or scale. He argued that each must be considered as separate measurements or scales. He believed that hygiene factors were preventive and that if an organization provided them, workers would not get sick of work or become dissatisfied with their job. Herzberg also argued that in order to help employees perform creative, satisfying, and responsible work, the organization must also provide motivators. Motivators included such things as achievement, recognition, the work itself, responsibility and advancement.

Herzberg (1966) believed that motivators created satisfaction by fulfilling the need of each individual for meaningful and personal growth. He argued that after the hygiene areas were successfully addressed, the motivators would promote job satisfaction, and encourage production. Herzberg, Mausner, and Snyderman (1959) stated that perhaps the most important thing to employee motivation was helping individuals believe that the work they were doing was important and that their tasks were meaningful. They also believed that most individuals sincerely wanted to do a good job and that it was incumbent upon leaders of organizations to support them so that they could succeed. Additionally, they argued that hygiene factors did not generally create a sense of motivation or satisfaction but the lack of them could create dissatisfaction among employees.

Five hygiene factors were identified by Herzberg (1959, 1966) as important to motivation and job satisfaction. He believed that company and administrative policies could be frustrating if the policies were unclear or unnecessary or if all employees were not required to follow them consistently. He argued that supervision by individuals who

lacked leadership skills and the ability to treat all employees fairly created major dissatisfaction among employees. Herzberg believed that salary was not a motivator but that all employees wanted to be paid fairly and equally, and if individuals believed they were not compensated well, they would be unhappy and would become unmotivated. He also believed that interpersonal relations were important because part of job satisfaction was the social contact it provided. He stated that it was important that companies provide a reasonable amount of time during lunch, breaks, or between job tasks for socialization. Herzberg believed that this socialization helped develop a sense of camaraderie and teamwork among employees. The last hygiene factor that Herzberg identified was working conditions. He believed working conditions have a tremendous effect on the level of employee pride. Herzberg argued that it was important that equipment and facilities were kept up to date and employees have their own space such as a locker, desk, or even just a drawer.

According to Herzberg (1966), motivators created employee satisfaction by fulfilling the employee's need for meaning and personal growth. The first motivator Herzberg identified was achievement, which he believed helped fulfill the desire of each employee to do a good job. He argued that in order to ensure successful achievement of job goals, employees must be placed in positions that utilized their individual talents and that they must not be set up for failure. He also argued that it was important for leaders to provide clear, achievable goals, and set standards for each position. Additionally, he believed that clear expectations must be articulated to all employees and that all individuals should receive regular feedback on their progress toward these goals. He concluded that all employees should be made to feel that they were being adequately

challenged in their jobs.

The second motivator, according to Herzberg (1966), was recognition for achievement by individuals at all levels of the organization. He believed that recognition was important for employee satisfaction and that recognition should not be withheld for only major accomplishments. He believed it was important to immediately acknowledge an employee's contributions. Herzberg argued that recognition could be provided in many ways from verbally thanking an employee, to writing a note of appreciation, to giving an employee a bonus.

The third motivator identified by Herzberg (1966) was the work itself. He believed that this was perhaps the most important motivator because, in order to be motivated, individuals needed to believe that the work they were doing was important and that their tasks were meaningful. One way Herzberg recommended to achieve this was to help employees understand how their work contributed to the organization's overall success. He argued that responsibility created employee ownership of their work. He believed that assigning responsibility, the fourth motivator cited by Herzberg, required giving employees enough freedom and power to carry out their tasks so they would feel that they owned the results. Herzberg further argued that responsibility should be added as employees matured in their jobs. He cautioned that care should be taken to ensure that more work was not simply added to the job but rather challenging and meaningful work was added. Along with challenging and meaningful work, he believed that more freedom and authority must be granted so employees could successfully perform the work.

The fifth motivator was advancement according to Herzberg (1966). He believed

advancement should be the reward for loyalty and performance. Herzberg argued that even if there was not an open position to which to promote a valuable employee, the employee could be given a new title that reflected the level of work that had been achieved.

Perhaps the most significant of Herzberg's contributions was the idea of job enrichment (Herzberg, 1966). He argued that meaningful tasks provided growth and job enrichment. He believed that providing meaningful tasks for employees was a relatively simple method for facilitating employee growth. He asserted that by adding different tasks that provided greater involvement and interaction to a job, the level of challenge could be raised and thus helps ensure the challenge of the job was commensurate with the employee's abilities. Herzberg was quick to point out that job enrichment was not a one-time proposition but rather a continuous management function.

Herzberg's research contributed many valuable insights into human relations and organizational development (1966). Herzberg believed that motivation of employees was important to organizations since it was one of several factors that significantly affected employee productivity. He argued that employee satisfaction and retention have always been important issues for organizations. He acknowledged that the psychology of employee motivation was tremendously complex, and what has been unraveled with any degree of assurance was very small (Herzberg, Mausner & Snyderman, 1959). However in the workplace today, employee motivation has become a vital issue that organizations must address if they are to survive and remain competitive (Conner, 1993; Emery, 1978; Fukuda, 1983; Gilbert, 1978; Hanna, 1988; Herzberg, 1959, 1966; Maslow, 1954).

Theory X and Theory Y

McGregor's (1960) ideas were heavily influenced by Maslow's needs satisfaction model of motivation and his suggestions that worker disaffection with work was due, not to something intrinsic to workers, but rather due to poor job design, managerial behaviors, and too few opportunities for job satisfaction. McGregor used Maslow's model to develop another central idea that the perspective from which a manager viewed other people determined how they responded.

McGregor (1960) stated that what managers said or exhibited in their behaviors revealed their theories-in-use. He believed that a manager with a Theory X Proposition would be inclined to believe that workers were lazy and that they had to be strongly directed. McGregor also believed that a manager with a Theory Y Proposition would tend to believe that people wanted to work and they would work with self-direction and self-control.

Additionally, McGregor (1960) believed that core assumptions of Theory X Proposition included the belief that managers alone must organize and control the work to be done and that workers must totally subordinate their needs to those of the organization. Additional core assumptions of Theory X Proposition included the belief that workers were indifferent, indolent self-centered, opposed to change, and lacked ambition (without strict supervision), and that they preferred to be supervised.

Core assumptions of Theory Y Proposition were directly opposite Theory X assumptions, according to McGregor (1960). Core assumptions of Theory Y Proposition included the belief that people were not by nature passive or resistant to organizational needs. Additionally Theory Y Proposition included the belief that individuals had

motivation, potential for development, capacity for assuming responsibility, and self-readiness to direct their behaviors toward organizational goals. Other core assumptions of Theory Y included the belief that it was the responsibility of management to recognize and develop these human characteristics in employees. Another essential part of this assumption was the belief that it was the most critical task of management to arrange conditions and operations within the organizational structure so that people could achieve organizational goals through self-direction and control of their own efforts.

McGregor (1960) argued that a person who was sick and suffering from a severe diet deficiency could be recognized readily but that a person who was suffering from deprivation of higher level needs could not be recognized as easily. He believed, however, that a person deprived of higher level needs was just as sick as the person suffering from a lack of food and that Theory X contributed to this deprivation. He further believed that Theory Y, when appropriately implemented, helped people move higher on Maslow's hierarchical ladder of needs.

In other words, McGregor (1960) believed that Theory Y postulated that the job of management was to arrange things so that the organization's interests and the employee's self-interest coincided as closely as possible. He also believed that Theory X relied too much on external control of people as opposed to Theory Y, which he believed relied on each individual's self-control and self-direction. McGregor concluded that Theory X treated workers like children and that Theory Y treated them as adults.

McGregor (1960) stated that Theory X and Theory Y were not managerial strategies. He argued that they were underlying beliefs about the nature of man that influenced managers to adopt one strategy over the other. He further argued that virtually

all conventional management practices were built on Theory X assumptions and these assumptions limited managers to possibilities ranging from hard to soft Theory X. According to McGregor, hard Theory X emphasized coercion, tight controls, threats, and punishments. In McGregor's view, Theory X resulted in low productivity, antagonism, militant unions, and subtle sabotage.

Like Maslow, McGregor (1960) believed that worker disaffection with work was due to poor job design, managerial behaviors, and too few opportunities for job satisfaction. He believed that managers were responsible for organizing the elements of the production process, getting workers to cooperate, and aligning the work of employees with organizational goals. He stated that the manager's role should be that of a developer and facilitator. He also believed that the manager should work systematically and conscientiously with junior staff defining jobs, priorities, planning operations, and reviewing achievements.

Specifically, McGregor (1960) believed that managers were responsible for creating a workplace in which people were treated as human beings. He further believed that leaders were responsible for providing incentives and rewards, which enabled people to become motivated to produce consistently high quality work. He argued that the best management philosophy was the one that viewed the workforce as an investment, not as a cost or liability. He concluded that supporting and nourishing employees, developing the workforce, and formulating ways to measure their performance accurately and fairly was critically important to organizational success and was the function of its leaders.

Argyris (1964) identified a basic conflict between the human personality and the ways in which organizations were structured and managed. Like McGregor (1960),

Argyris saw organizations managed in a manner that treated employees like children, and in a manner that never allowed them to progress toward self-actualization. Both Argyris and McGregor argued that if management practices were inconsistent with employee needs, this discrepancy would produce conflict resulting in resistance and withdrawal. They believed that managers had the tendency to misinterpret employee behaviors to mean that something was wrong with the employee rather than something being wrong with the organization or with management practices.

According to Argyris (1964), there were three strategies that managers typically used and all of them made problems worse. One approach was strong, dynamic, leadership based on the assumption that employees were a relatively passive flock of sheep. He believed that this strategy was self-defeating because it put more responsibility on the manager and less on the employee. Argyris identified a second strategy, which involved installing tighter controls, such as time and motion studies, quality control inspectors, and other non-value added controls. He believed that tighter controls deepened and reinforced the conflict between the individual and the organization, and led to escalating competitive games between managers and employees.

The third strategy, according to Argyris (1964), was softer because it involved human relations programs. He believed that these programs included selling management's philosophy (through initiatives such as company newspapers and films), pseudo-participation, (which made the employees feel that their ideas were valued), and communications programs (that rarely communicated what employees really wanted to know). Argyris believed that the focus of this strategy was on trying to make employees

feel better without solving the underlying problems and that this strategy would usually ended up making matters worse.

Job enlargement and participative management, according to Argyris (1964), had potential. However, he saw limits to both concepts. He believed many employees were already socialized to be passive and dependent at work. Argyris also believed that, because of this conditioning, employees might resist efforts to make their work more challenging and responsible. He concluded that what was needed was reality-centered leadership. He believed that this type of leadership took into account the actual needs of the employees as well as of the needs of the organization.

One of two strategies formulated by Argyris (1964) focused on individuals. The second strategy focused on organizations. Argyris pointed out, however, that organizations and people were interdependent and could not be treated as separate entities. He believed that people look to organizations for a variety of economic, personal, and social needs and that organizations cannot function effectively without the energy and talents of their employees.

Force Field Analysis Theory

Kurt Lewin (1948, 1951), a pioneer in the field of social sciences, developed a management technique that he labeled as force field analysis. He believed this technique could be used for diagnosing situations, for looking at variables involved in determining effectiveness of a change management program, and for planning and implementing change initiatives. Lewin's field theory emphasized the belief that motivation for a person depended upon existing facts, which included the feelings of the person and the pressures of the environments in each situation.

According to Lewin (1951), in any given situation there were both driving and restraining forces that influenced the success or failure of change initiatives. He believed that driving forces pushed in a particular direction, and they initiated a change and kept it going. He also believed that in terms of improving productivity, pressure from a supervisor, incentive earnings, and competition were examples of driving forces. Restraining forces, as defined by Lewin, were forces actively restraining or decreasing the driving forces. For example, he believed that apathy, hostility, and poor maintenance of equipment were possible examples of restraining forces pushing against a driving force such as increased production.

Lewin (1951) viewed human systems, as being almost but not quite static and he believed that they were resistant to change. Lewin believed that equilibrium was reached when the sum of the driving forces equaled the sum of the restraining forces and that the equilibrium, or present level of productivity could be raised or lowered by changes in the relationships between the driving and restraining forces. He also believed that to move or change a system, actions and the unconscious behaviors that worked against productivity had to be unfrozen. He further believed that in order to achieve success, strategies had to be implemented that melted the ice of indifference, ignorance, or uncertainty, which would then unfreeze the system. He concluded that once the system was unfrozen or melted, it would move, cool, and then refreeze.

The strength of Lewin's (1951) model was that it provided an ability to see human change, whether at the individual or the group level, as a profound psychological dynamic process. This process involved painful unlearning without loss of ego identity and difficult relearning as an individual cognitively attempted to restructure his or her

thoughts, perceptions, feelings, and attitudes. Lewin believed that if individuals freeze in dysfunctional patterns. Dysfunctional patterns were environments where nobody listened or communicated, and where nobody appreciated or celebrated accomplishments. He believed the end result was output and quality suffered. He suggested that this freezing process created an environment where individuals continually reacted to crises, and because they were doing so, strategic thinking was driven out.

Lewin (1948) emphasized that underlying forces (needs) were determiners of behavior and expressed a preference for psychological as opposed to physical or physiological descriptors of the field. A field, as defined by Lewin (1951), was the totality of coexisting facts, which were conceived of as mutually interdependent. Unfreezing as a concept highlighted the stability of human behavior based on quasi-stationary equilibria supported by a large force field of driving and restraining forces. Lewin argued that in order for a change to occur, the force field had to be altered under complex psychological conditions. He further argued that if a driving force toward change were added, it often would produce an immediate counter-force that would maintain the equilibrium.

Important insights were provided by Lewin (1951). He argued that the equilibrium could more easily be moved (the system unfrozen) if the restraining forces were removed because driving forces usually already existed in a system. Unfortunately restraining forces were harder to get at because they were often personal psychological defenses or group norms embedded in the organizational culture (Schein, 1969). Schein argued that change moved at such a fast pace that human beings would never reach the quasi-stationary equilibria that Lewin talked about.

Schein (1992) believed that all forms of learning and change started with some form of dissatisfaction or frustration generated by data that disconfirmed an individual's hopes or expectations. He believed that disconfirmation functioned as a primary driving force in the quasi-stationary equilibrium (Lewin, 1948, 1951). Schein also believed that disconfirming information was not enough in and of itself to facilitate change, because the information could be ignored, dismissed as irrelevant, or blamed on others. He argued that for individuals to become motivated to change information had to be accepted and connected to something they valued. Schein further argued that important changes inevitably involved deep cultural and sub-cultural assumptions. He concluded that change could be better defined as learning and the involvement of the learner was crucial to any kind of planned change.

Social-Technical System Theory

A different view of management theory was provided by Trist (1960, 1981). He believed this theory was more grounded in the way that businesses really operated. He called it finding the best match between social and technical systems. Trist coined the phrase socio-technical system to underscore his observation that the interaction of people (a social system) with tools and techniques (a technical system) resulted from choice, rather than chance. Trist's socio-technical approach required that those who do the work get a great deal more authority, control, skills, and information than was customary or possible under scientific management. Both Trist and Schein (1992) focused on the interdependency between the organization and the employee and their work helped pointed out that one could not be successful without the success of the other.

A theory of open systems thinking was introduced by Trist (1960), and this

thinking has influenced all subsequent related work. Trist's open systems idea was relatively simple. He believed that all things linked up and influenced one another in all directions. He argued that cause and effect were not the only possible relationships between a force and an object, and that the effect could be the cause.

Emery and Trist (1960, 1969, 1973) developed a method of thinking about a system as a process that took in inputs, such as ideas, raw materials, money, and converted these inputs into something else of value, and that all individuals who touched the process added value. The strength of the model was that it provided a reference for identifying the variables of a process. This model was used extensively during the 1980s as processes were diagnosed and streamlined. Figure 2.1 shows the basic concept of the supplier, inputs, process, output, and customer (SIPOC) model.

Weisbord (1990) studied many of the leading authorities on management and incorporated a variety of these theories into his model. One of the primary sources for his work was Trist's concept of a socio-technical system; the interactions of people (a social system) with tools and techniques (a technical system). He believed that this interaction was a result of choice not chance and that our choices were dictated by economic, technological, and human values.

Engineering Human Competence

Gilbert (1978) took a different approach to developing a model for understanding interactions between various components of an organization and the individual's performance. As a student of B.F. Skinner, Gilbert was concerned about behavior and believed that behavior had to be fully investigated in order to acquire a more

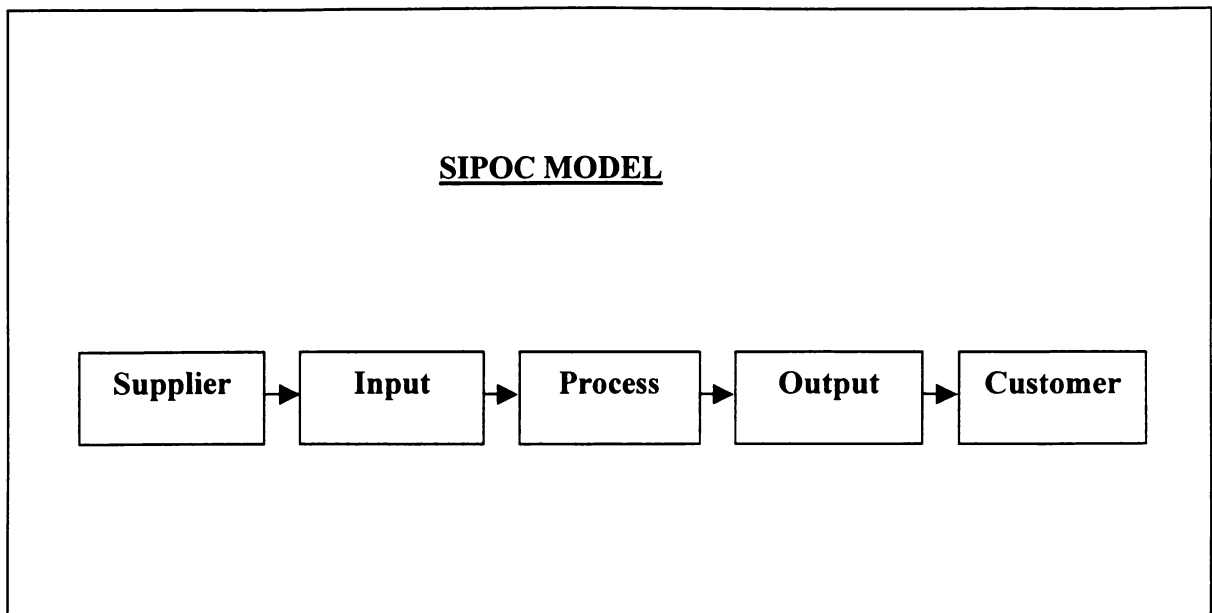


Figure 2.1. Flowchart of supplier, input, process, output, and customer (SIPOC) model.

comprehensive understanding of performance. He divided behavior into three major subcults; work (which values the expenditure of human energy in the form of hard work), sacrifice (which involves self-denial), knowledge (which pays homage to those who possess vast amounts of information, theories, skills), and motivation (which promotes eagerness and the display of positive and amicable attitudes).

According to Gilbert (1978), the subcult of work focused on energy expended and not on actual accomplishments. He believed that people were promoted and rewarded by coming to work on time and looking busy, rather than on what they actually accomplished. With the subcult of knowledge, Gilbert believed that knowledge was valued for its own sake, not on how it enabled individuals to achieve organizational goals and objectives. In the subcult of motivation, Gilbert believed that behaviors, which departed from acceptable norms, sometimes resulted in individuals being classified as

unmotivated or lazy, and even worse, the individual could even be classified as sick or mentally ill.

The subcult of motivation, according to Gilbert (1978), was more dangerous because labeling people could be grossly inaccurate. He believed that behaviors exhibited by individuals, could be caused by many things that the performer may not have control over, such as lack of knowledge about what accomplishments were expected, how to perform, and what the standards were for his or her performance. Other factors identified by Gilbert included such things as punishment for performing, and lack of tools, resources, and time to perform well. Gilbert believed that these things could be the result of a poorly executed change that created dysfunctional behaviors and negatively impacted an individual's ability to deal with the change.

From his research on behavior, Gilbert (1978) coined the term teleonomics. He defined teleonomics as a particular system for studying, measuring, and engineering human competence. Teleonomics, as described by Gilbert, provided a focus on results, or products of behavior, and viewed behavior as only one of the inputs or variables. Teleonomics, Gilbert concluded, was a system of performance engineering that resulted in organizational accomplishments.

Gilbert (1978) believed that for individuals to begin progression toward achieving desired performance, they had to possess certain requisite skills and knowledge and that they had to have the intellectual, physical, and emotional capabilities for learning. Additionally, their motivation had to be aligned with organizational objectives. Gilbert argued that the environment had to be engineered by managers to support the desired performance.

Both Weisbord (1978, 1990) and Gilbert (1978) acknowledged that interaction was necessary between individuals and their environment. The models provided by Weisbord and Gilbert contributed invaluable insights into what skills could be required for effective leadership. Each researcher concluded that an appropriately engineered environment was one in which an individual could truly be empowered and that components of empowerment were a crucial key elements in helping an individual effectively cope with change.

Leadership Skills

Mann (1965) defined three skills as being required for leaders. The first skill identified by Mann was human relations skills, which involved the ability to work with different personalities and the ability to judge people accurately. According to Mann, human relations skills also included knowledge of the principles of behavior, an understanding of human interaction, and an awareness of human motivational problems. Technical skills, the second skill identified by Mann, included the ability to implement techniques, methods, and equipment required for completing specific tasks.

The third skill identified as being required by leaders, (Mann, 1965) was administrative skills, which referred to the leader's ability to understand and work for overall organizational goals, rather than work just for the immediate group goals. Planning and organizing work, making appropriate task assignments to group members, inspecting, following up, and coordinating the work of subordinates were also included in administrative skills (Mann).

Conditions for Effective Leadership Behaviors

Likert (1961, 1967) identified five conditions that he believed must be present to ensure effective leadership behaviors. The first condition he identified was supportive relations. He argued that organizations, as well as the behaviors of supervisors, had to be seen by workers as maintaining their personal worth and importance and as supporting their values. According to Likert, the second condition was group emphasis in supervision, which meant that each worker must be part of an effective group that had high performance goals, group loyalty, and effective interaction. The third skill involved high performance goals, and dealt with the supervisor being not only employee-centered but also having contagious enthusiasm regarding the importance of achieving high performance goals.

The fourth condition, according to Likert (1961, 1967), involved technical knowledge, which required the supervisor to be able to deal competently with work problems faced by his or her group, or required the supervisor to be able to ensure that applicable technical knowledge was provided. The fifth condition cited by Likert involved coordinating, scheduling, and planning, which he believed required the leader to have the ability to present views, goals, values, and decisions of his group to other appropriate internal groups and to groups outside the organization. He also believed that the leader had to be able to bring back views and decisions of other groups as his own, in order to effectively support their being achieved.

Traditional Management

Neush and Siebenaler (1993) stated that traditional management has been characterized by authoritarianism, entitlement, paternalism, and working to rules that

placed the responsibility for managing thousands of daily performances on the shoulders of management. They argued that traditional management placed the control of the work in the hands of a few individuals at the top of the organization. Some researchers, (Bennis, 1966, 1989a, 1989b; Bennis & Nanus, 1985) suggested that traditional management was not capable of dealing with change and that the traditional model for managing organizations had to be replaced by democratic or participative management.

Other Theories

Bennis (1989a) and Nanus (1989) agreed that the operating environment of an organization was comprised of its people, facilities, products, policies, and its culture. They believed that organizations had a hard side that is composed of technology, buildings, money, and other tangible things. Neush and Siebenaler (1993) argued that an organization also had a soft side composed of its human resources, supervisors, and other intangible things. They argued that it was this soft side that got things done and that it was the soft side of the organization that was affected by stress.

The influential hierarchy of motivation (Maslow, 1954, 1985, 1998) suggested that as people satisfied their lower-level needs for food and physical safety, they moved to higher-level needs required for self-esteem and self-actualization. Argyris (1964) and McGregor (1960) noted that because traditional managers often treated employees as children only the lower level needs were addressed. Techniques such as participative management and empowerment were tools, believed by many researchers, that would satisfy higher-level needs and that would tap higher levels of employee motivation and capacity (Argris, 1957, 1964, 1974; Barker, 1993; Barner, 1994; Guillory, 1989; Guillory

& Galindo, 1995; Herzberg 1966; Jones & Bearly, 1988; McGregor, 1967; Perrow, 1986; Peters & Waterman, 1982; Trist, 1981).

Drucker (1966, 1974, 1988, 1992) argued that effective leadership was hard work and included analyzing, synthesizing, and planning. He stated that organizational leaders had to take the initiative to pursue new ways to improve the functioning of the organization. According to Neush and Siebenaler (1993), the successful manager of the future will make full use of the collective wisdom of those within his jurisdiction. Additionally, the successful manager of the future will learn to derive pleasure, not from the making all the decisions, but from ensuring that the best possible decision was made. Neush and Siebenaler also stated that empowerment was the appropriate context for creating an effective operating environment for everyone in the company, including workers and leaders. They argued that it was the only context that created a high performance-operating environment.

According to Orsburn, Moran, Musselwhite, Zenger and Perrin (1990) humans seemed better able to cope with change when they perceived they could influence the outcome. They believed that participative management structures, such as empowered teams, could help individuals deal more effectively with change by providing opportunities for involvement in decisions that impacted them.

Orsburn, Moran, Musselwhite, Zenger and Perrin (1990) also believed that because of this increased control at the personal and team level, individuals could experience a significantly lower level of occupational stress than individuals in traditional organizations. They also argued that individuals who had increased control would be

better able to cope with their rapidly changing environment in a dramatically different world.

Empowerment Theories

For the past decade, consultants have been using fashionable buzzwords and trendy approaches to sell new ideas and fads to management. One of the most elusive concepts was the idea of empowerment (Ray & Bronstein, 1995). Ray and Bronstein believed, however, that employee empowerment was more than a fad, buzzword, or current hip corporate jargon. They defined empowerment as requiring a management system that allowed employees, who do the work, to manage how that work gets done. They also acknowledged that a new human infrastructure (the system of human interaction and communication within the organization) were required in order for this to happen.

Empowerment was an organizational context, as defined by Guillory and Galindo (1995) that fostered and encouraged the optimum performance of an organization's employees. They argued that empowerment had to be implemented by a system of high employee involvement within a decentralized organizational structure. They believed that empowered employees progressively assumed greater responsibility and accountability for their jobs through continuous-learning.

Murrell (1985) was one of the first researchers to apply the term empowerment in the industrial work environment. Murrell's work provided a theoretical and implementation framework for the act of worker empowerment by identifying activities that were considered to be of vital important to worker empowerment. These activities included educating, leading, structuring, providing, mentoring, and actualizing.

Considering that many researchers believe that the most important resources of an organization are its employees, the need for developing each individual to his or her optimum level of performance become of paramount importance (Conner, 1993; Guillory & Galindo, 1995; Neush & Siebenaler, 1993).

Other researchers also believed that human resources were the most vital recyclable resource in the organization because they were critical resources that were utilized over and over (Follett, 1974; Handy, 1994; Jones & Bearly, 1988; Wellins, Byham & Wilson, 1991). These researchers argued that the most important principle of empowerment was recognizing that people were more important than management systems. They further argued that this realization would lead to organizational leaders understanding the absolute necessity of preserving the mental, physical, emotional, and even the spiritual well-being of employees.

Guillory and Galindo (1995) concluded that the present progression from information-oriented businesses to knowledge-based businesses would require the development, utilization, and retention of creative employees for an organization to survive. They believed that empowerment was an important factor for the survival of most organizations around the world because in today's fast-paced, customer-oriented work, a bureaucratic hierarchy would not work meeting the crucial expectations from customers for quality, speed, customization, and service.

According to Guillory and Galindo (1995), there could be other as yet unidentified benefits because one of the fundamental assumptions of high-involvement was employee involvement in designing and controlling their work functions. They argued that involvement helped ensure that the organization operated more efficiently

and, therefore, more productively. They believed that empowered employees could experience lower levels of stress because of their high involvement and increased control of their work.

Neush and Siebenaler (1993) argued that empowerment was a hardheaded business decision that enabled everyone in the organization to perform to his or her full potential. They further argued that empowerment was a dollar and common sense practical approach to managing and improving performances and empowered workers were in the best position to take action, make decisions, and improve their performance because they were enabled, encouraged, and supported.

Characteristics of an Empowered Organization

According to Neush and Siebenaler (1993), there were eight characteristics of an empowered organization. They believed that trust was extremely important and was the essential element that must be in place for empowerment to occur. In order to achieve an empowered organization, they argued that management had to let go of control and workers had to accept responsibility for achieving organizational goals. They concluded that this transaction could not take place without the fundamental element of trust.

Shared information was one of the first expressions of trust in the letting go transaction, according to Neush and Siebenaler (1993). They argued that providing information and implementing training and education on how to use it was very important to empowerment of all workers. They concluded that in an empowered organization, workers were called upon to act upon their knowledge to continually improve their performance, the performance of their group, and the performance of their organization.

Formal skills training had to be linked to desired organizational outcomes or results (Neush & Siebenaler, 1993). Neush and Siebenaler believed that all training had to be aligned with the objectives of the business and evaluated regarding the applicability of the training to improved performance. They further argued that training had to be sensitized to the actual needs of the people, and that training had to be aligned to reinforce the new mind-set required of the empowered organization.

Clear roles and accountabilities were identified by Neush and Siebenaler (1993) as being important to an empowered environment because of the expectation for exemplary performance at every level of the organization. They felt that entitlement should no longer be tolerated and under-productive people should be refocused on achieving organizational goals. They believed that uprooting entitlement was never easy and that it was very hard to get people to give up their warm blanket of protection. They argued that people who had been accustomed to years of entitlement would resist initiatives involving increments of risk. To overcome this resistance, they stated that leaders had to put teeth into the changed required by holding people at every level accountable for their performance.

Freedom to act was an important requirement for empowerment according to Neush and Siebenaler (1993). They believed individuals at all levels of the organization had to be encouraged to take actions to improve performance. They concluded that to encourage action, leaders must establish boundaries, provide new and broader job definitions, and implement value-added policies and procedures. They warned that empowerment should not be looked upon from a romantic point of view and that unbounded freedom to act, coupled with an unrealistic sense of the evolutionary nature of

empowerment could produce an environment in which management could become paralyzed and workers could become disenchanted.

Neush and Siebenaler (1993) believed that performance feedback was also a critical component of empowerment. They believed that the purpose of the empowered context was to improve performance and that regular feedback had a positive impact on performance. They further argued that individuals wanted and needed feedback in order to learn from it. In addition to maintaining a sense of just how important the work was on which the performance was being measured, Neush and Siebenaler also believed that feedback helped an individual maintain his or her self-esteem within the social context of the organization.

Both positive and negative consequences for performance had to be provided to employees, according to Neush and Sibenaler (1993). They argued that positive consequences encouraged the desired performance and that negative consequences discouraged undesired performance and that both types of consequences reinforced desired behaviors.

The empowered context (Neush & Sibenaler, 1993) required resources to be optimized through alignment with acknowledged priorities and business objectives. They further stated that expending resources on anything less eroded trust, impaired freedom to act, and jeopardized performance.

Conner (1993) believed that empowerment should not be confused with delegation, courage, or autonomy, and that many organizations referred to empowering the workforce when they encouraged people to make their own decisions about some aspect of their job. When someone has been assigned the right to make his or her own

decisions, Conner believed this should be called delegation, and that the term empowerment should be reserved for those situations where employees are not granted permission to take action on their own. Conner believed that truly empowered individuals were asked to provide input to management as decisions were being made. According to Conner, individuals were empowered when they were valuable enough to others to influence their decisions -- not when they were allowed to make their own.

Driving Down Power and Decision-Making

Jones and Bearly (1988) provided a powerful philosophical definition of empowerment, which discussed the process of enabling people to do what they were qualified to do and for which they were being held accountable. They believed that driving down decision-making, information, control over work conditions, and other job-related procedures generated employee commitment and ensured that employees had both responsibility and authority. Wellins, Byham, and Wilson (1991) also supported this theme for ownership and commitment.

Wellins, Byham, and Wilson (1991) believed that empowerment occurred when power went to employees who then experienced a sense of ownership and control over their jobs. Barner (1994), who described empowerment as the transfer of power and authority from managers to lower-level employees, further supported the idea of this transfer. Kanter (1977, 1983) suggested that empowerment involved giving power to employees.

Other researchers, (Follett, 1974; Handy 1994), argued that empowerment may not be an entirely satisfactory term because it implied giving away power by someone on high who could later take it back. Follett believed that authority derived from the function

or task and argued for power with rather than power over others. They offered an alternative term of high involvement.

Neush and Siebenaler (1993) stated that the positive effects of employee participation in change processes has been demonstrated by increased personal rewards and various indicators of improved organizational effectiveness. Vroom (1960, 1964), and Vroom and Yetton (1973) found that individuals who had greater opportunities to influence decisions that affected them had a greater level of job satisfaction. Other researchers (Barra, 1983; Conner, 1993; Donnellon, 1996; Guillory & Galindo, 1995; Neush & Siebenaler, 1993) have concluded that increased levels of control were positively associated with employee attitudes and higher performance. Pennings (1976) found that the total amount of control in an organization was related to feelings of participativeness on the part of individuals. Merriam-Webster (1993) defined participative as a style of management in which subordinates participated in decision-making.

Enablement or Empowerment

Barner (1994) believed that a better term for empowerment might be enablement. He stated that enablement involved helping people develop the necessary competencies to manage their own empowerment effectively. He also believed that when enablement was not part of an empowerment effort, the effort was likely to fail. Simons, Vazquez, and Harris (1993) described empowerment in terms of enabling individuals and teams to take responsibility for productive work in the context of a clearly defined vision.

Followers as Leaders

Kouzes and Pozner (1995) provided perhaps one of the most powerful and

complete empowerment definitions. They stated that empowering others was essentially the process of turning followers into leaders themselves. They also believed the process of building and enhancing power was facilitated when employees worked on tasks that were critical to the organization's success, and when employees exercised discretion and autonomy in their efforts. Additionally, they believed when employees' accomplishments were visible and recognized by others, and employees were well connected to other people of influence and support, empowerment was facilitated.

Empowerment attributes were refined further into concise operation definitions, by Kouzes and Pozner (1995). They developed four empowerment principles. They believed assigning important tasks to workers created a sense of ownership and a feeling of pride and responsibility. They also believed autonomy and discretion helped facilitate empowerment. They believed delegating important tasks and the authority to make needed changes in related processes maximized empowered individuals' creativity, flexibility, freedom, and increased their sense of value to the organization.

Responsibilities of Leaders

As discussed by Kouzes and Pozner (1995), visibility and recognition for employees were important parts of a leader's responsibilities. They also believed that it was the leader's responsibility to ensure that empowered individuals did not go unnoticed or unrewarded and they cautioned that each individual's unique motivational need must be taken into account. They stated that building strong relationships was another critical part of a leader's responsibilities. Kouzes and Pozner argued that the leader was required to model the way by fostering important relationships that helped assist empowered individuals with the accomplishment of their tasks.

Bennis (1989b) considered empowerment to be a collective effect of leadership and identified four major components of leadership. He stated that leaders were responsible for ensuring that all workers felt valued and that they felt they made a difference and that they felt they were significant or important to the organization. He believed that this component addressed the basic human need for self-esteem.

Learning and competence was another important responsibility for leaders, according to Bennis (1989b). He stated that leaders were responsible for ensuring that workers were provided opportunities for education and for developing their potential competencies. He also believed that leaders were responsible for fostering relationships in the workplace that were aimed at satisfying the human need to belong. Bennis argued that the leader must also fulfill the role of motivator, visionary, and communicator. He believed that in this role, the leader had the responsibility for creating a work place that was stimulating, and interesting, and the leader had to ensure the continual energizing of the workers.

Conger and Kanungo (1988) added an additional aspect of empowerment when they defined empowerment in terms of self-efficacy. They believed that empowerment was a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that fostered powerlessness. They believed that these conditions had to be removed by both formal organizational practices and informal techniques of providing efficacy information.

A considerable body of research evidence (Coch & French, 1948; Conner, 1993; Guillory & Galino, 1995; Kouzes & Posner, 1995; Marrow, Bowers, & Seashore, 1967; Murrell, 1985; Neush & Siebenaler, 1993) has demonstrated the positive effects of

employee participation in change processes as indicated by increased personal rewards and various indicators of improved organizational effectiveness.

According to Nanus (1989), empowerment was a powerful tool because it: (a) worked and (b) supported the deepest psychological needs of followers. He argued that people wanted to make a difference, and they wanted to be where the action was. He further argued that people needed to feel they were doing a good job and they wanted to be recognized for it. Nanus also concluded that people wanted to join with others in a common purpose and they wanted to enjoy their work. He also stated that people wanted to feel that what they did was important. He concluded that if a leader helped fulfill these needs, he or she would have little trouble with employee commitment and trust.

Stress as a Process

Organizational leaders play an important role in the stress process. An important responsibility of leaders in the future will be able to help eliminate or minimize employee stress. To do this, they will require a basic concept of stress as a process. The involvement of the leader in the stress process will be multi-faceted. Leaders must recognize that they can become the catalyst or the cause of stress. Lack of role clarity, unclear or ambiguous communications, lack of consistency in treatment of workers are just a few of the ways in which a leader can create stress (Bennis, 1989a; Nanus, 1989). Figure 2.2 depicts a basic occupational stress process. This model does not mean to imply that stress is mechanistic, linear, uncomplex, or that it has a cause and effect relationship. It is provided simply as a means for discussing stress in contextual terms.

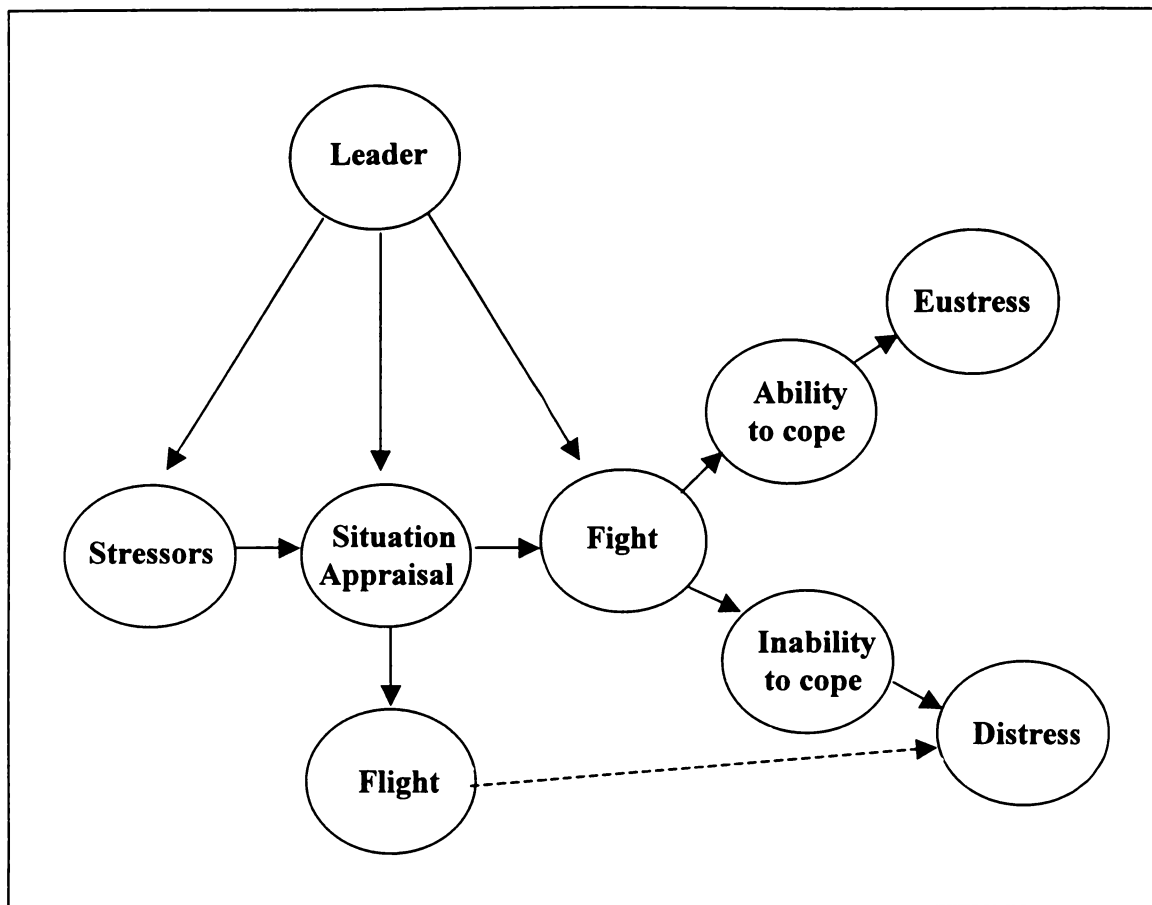


Figure 2.2. Basic occupational stress process.

Another role for leaders will be to design the work environment so as to help eliminate or minimize both physical and psychological or cognitive stress to employees (Gilbert, 1978; Weisbord, 1978, 1990). The leader will also play an important role when individuals are appraising the situation, as stressors are encountered (Likert, 1961, 1967; Mann, 1965). During this appraisal, individuals may be determining whether to fight or take flight (Yates, 1979). By helping optimize the ability of individuals to deal with stressors, employees may be able to develop their hardiness for coping with existing and future encounters with stressors (Maddi & Kobasa, 1984). Stress hardiness involves individuals responding to stress in the most positive manner possible and thereby

minimizing negative effects. Maddi and Kobasa believed that this hardiness builds upon itself and as employees deal with each new situation, a new level of hardiness is developed.

An important role for leaders will be recognizing the need for and providing appropriate resources and support to employees who decide to fight so that they can successfully cope with the situation. If employees are successful in coping, the stress could become eustress. As previously discussed eustress is as an individual's adaptive, constructive, healthy response to a stressful situation (Quick & Quick, 1984; Selye, 1974). Eustress has been shown to also develop hardiness in individuals.

Inability to cope can lead to distress in the individual and when this happens the role of the leader will be to recognize when stress becomes distress in an employee. The leader must be able to provide appropriate support and implement appropriate interventions or solutions (Gilbert, 1978; Weisbord, 1978, 1990).

Summary

From the review of the body of existing literature, the following conclusions can be made. First, it appears that today's era has been characterized as an age of paradox, a time without reason, an age dominated by globalization, discontinuous change, complexity, and declining confidence and faith (Handy, 1989, 1994). Oblinger and Rush (1997) stated that American businesses have experienced transformations in the past decade that dwarfed the changes brought about by the industrial revolution. They argued that more than 75% of Fortune 1,000 companies were revamping fundamental work processes and undergoing radical change.

Secondly, it can be concluded that major change diminishes the human ability to control. Conner (1993) believed that major change minimized the human ability to dominate events. He argued that for a species, whose entire existence was predicated on its ability to control its environment, the ultimate nightmare was an inability to assimilate change in a world transforming itself faster by the minutes. For humans to grow and develop through change, they must be able to deal with it effectively (Beck & Cowan, 1996).

Seligman (1975) noted that lack of control had been shown to foster helplessness, a syndrome of cognitive, motivational, and emotional deficits produced by learning that events were not under one's personal control. Losing control has been associated with frustration and prolonged depression (Hanson, Larson, & Snowdon, 1976) and elevated cortisol levels. Many researchers (Abramson, Seligman & Teasdale, 1978; Averill, 1973; Glass & Singer, 1972; Miller, 1979; Seligman, 1975; Stroebe, 1969) have documented negative effects on employees' health and well-being when there is a perceived absence of control or influence in decision making.

Thirdly, many studies revealed a close relationship between individuals' ability to control and their stress levels. Some researchers have documented studies that tied the concept of control closely to stress (Folkman & Lazarus, 1980; Lazarus, 1966; Pearlin & Schooler, 1978). Perceived control was an essential ingredient of coping (Folkman & Lazarus) and a psychological resource that people drew upon during stressful events (Pearlin & Schooler). Cognitive appraisal was thought to be a function of the amount of control the person believed he or she had in the situation (Lazarus).

Cooper and Payne (1988) argued that employees wanted control over what was important in work settings. They believed that the aspects of work over which employees could exert control included how the job was done, how work was scheduled, methods used in performing tasks, timing of work-rest breaks, arrival and departure times, modification of unpleasant physical conditions, and job mobility. Jackson (1983) studied the effects of participation in decision-making and potential intervening variables on role stressors and employee distress. From his research, Jackson concluded that participation in decision making reduced role stressors and that perceived influence was a mediating variable.

It appears that participative management structures could be one way to help improve employees' perception of control of their work environment. Schein (1992) and others (Bowman & Kogut 1959; Burns, 1978; Bushe & Shani, 1991; Eccles & Nohria, 1992; Hanna, 1988; Mohrman & Cummings, 1989; Wilkins, 1989) argued that the role of leaders must change. Some researchers believed that the new role of leaders must become one of developing a learning organization (Guillory & Galindo, 1995; Schein). They further believed that each organization must be capable of making its own perpetual diagnosis and self-manage whatever transformations were needed. Additionally, Schein argued that to create involvement and participation a leader must have the ability to involve others. Guillory and Galindo further supported Schein's belief. They stated that the more turbulent, ambiguous, and out of control the world becomes, the more the learning process must be shared by all members of the organization.

Vlamiš (1999) believed that leadership should be on everyone's mind. Champy (2002) believed that there are pieces of leadership that are innate and some people are

born with these characteristics, but they believe that there are other skills that must be developed over time through experience. Kotter (1996) believed that the fundamental purpose of leadership was about coping with change and that the role of a leader was to create organizations in which every member is provided the appropriate support for effectively dealing with change and occupational stressors.

Schein (1992) believed that the leader of the future must be able to create a culture that embraces change and one that enables employees to diagnose, learn, and proactively problem solve (Schein). Maslow (1954) also emphasized the critical need for environments that support employees' efforts so they can effectively deal with change and occupational stress, in his journals. He predicted that the world would become one in which human potential would be the primary source of competitive advantage in almost every industry, every organization, and every institution. Bower (1997) believed that would take will, innovation, and experimentation to develop work environments where people could work together more effectively, efficiently and harmoniously in achieving the purpose of the business as opposed to traditional environments. He argued that leadership must be present throughout the company, not just at the top.

CHAPTER III

RESEARCH METHODOLOGY AND PROCEDURES

This chapter provides the detailed procedures used in this study. The following sections focus on methods, population and sample selection, instrumentation, data collection procedures, and data analysis methods. A flowchart for the design of this study is provided in Figure 3.1.

Research Methodology

I designed this study to examine levels of occupational stress, psychological strain, and available coping resources and to investigate the relationship between these factors and demonstrated empowerment behaviors of leaders. A secondary purpose of this study was to investigate the differences in occupational stress, psychological strain, and available coping resources between demographic variables (age, race, marital status, work schedule, education, seniority, work hours, gender, and job title).

Dependent and Independent Variables

The dependent variables in this study were occupational stress, as measured by occupational role adjustment, psychological strain, and personal coping resources. Independent variables in this study were empowerment behaviors of leaders as measured by encouragement, trust, and enablement.

Population, Sampling Frame, and Sample

The population for this study consisted of the approximate 9,000 United States members of the International Society for Performance Improvement (ISPI) geographically located throughout the United States. This population was categorized as white-collar professionals based on the typical membership of ISPI. A flow chart of the

process used is shown in Figure 3.1.

Population

The International Society for Performance Improvement was established as a professional organization dedicated to leading efforts for improving productivity and performance in the workplace. Founded in 1962, ISPI national members included performance technologists, training directors, human resource managers, instructional technologists, human factor practitioners, and organizational development consultants. ISPI members represented a wide variety of industries, such as automotive, communications, telecommunications, computer, financial services, government agencies, health services, military, manufacturing, travel and hospitality, and education. Additionally, their physical locations provided representation of almost every state in the continental United States.

This target audience was chosen because I believed they could be representative of workers who are experiencing high levels of occupational stress due to the volume of change created by globalization, regulation, deregulation, protectionism, regional economic slumps, takeovers, mergers, acquisitions, competition, diversification, product liability, product proliferation, downsizing, and declining profits (Kotter, 1990).

Sampling Frame

At the time I designed the study, there were approximately 9,000 national (United States) members of the International Society for Performance Improvement (ISPI). The International Society for Performance Improvement also had international members but they were not included as part of the study. Therefore, the sampling frame for this study consisted of the approximate 9,000 national (United States) members. The names of the

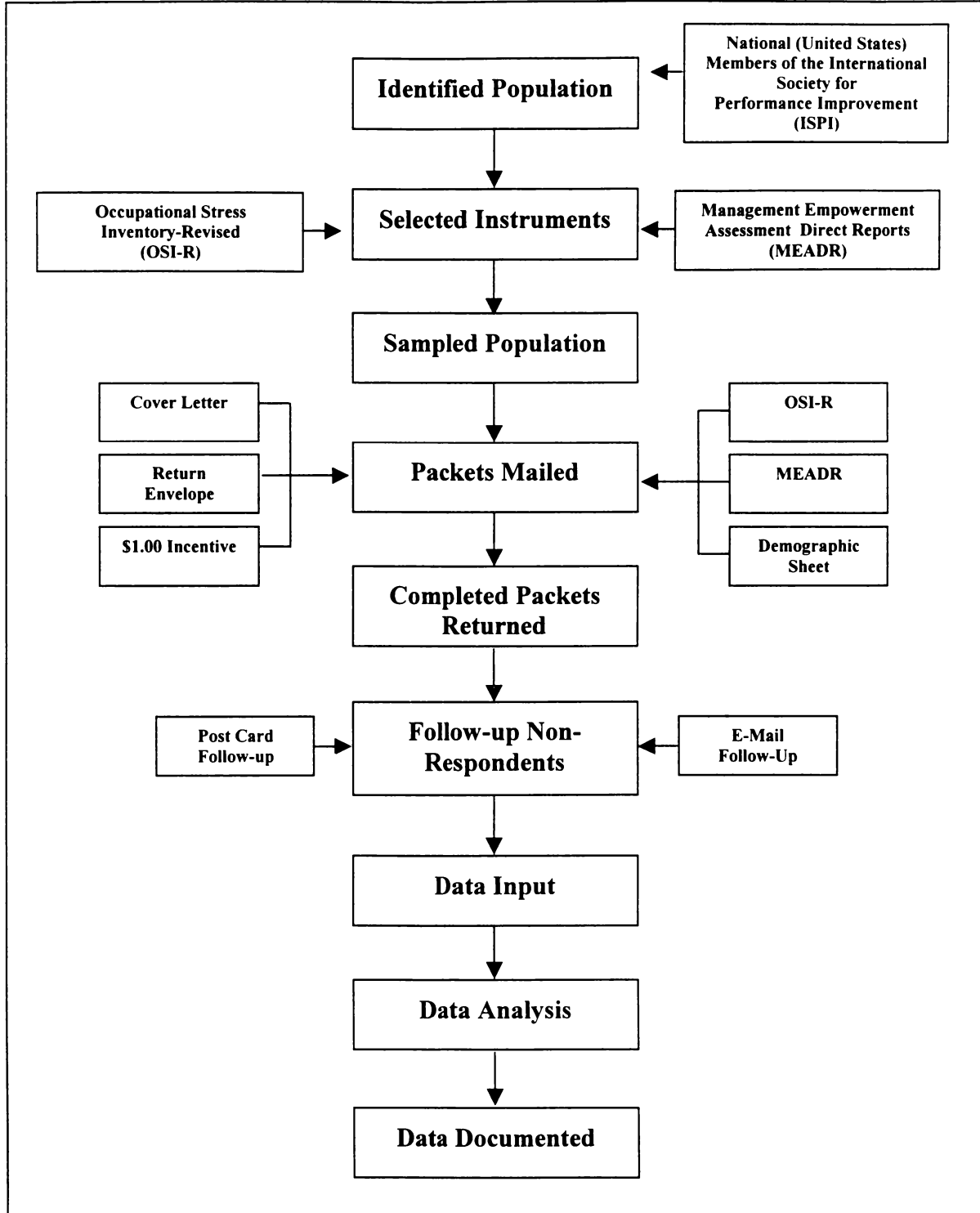


Figure 3.1. Flowchart of the design of the study.

ISPI members were obtained from my membership directory. I performed a random selection sample selection to choose the 400 participants who were surveyed. Survey packets were mailed via the United States Postal Service during the fall of 2001.

Sample

As a member of ISPI, I had access to a membership directory, which contained names and addresses of the national members. According to Airasian and Gay (2000) random sampling is the best way to obtain a representative sample. They believed that random sampling is crucial to statistical analysis because it allows the researcher to make inferences about a population based on the performance of a sample. They argued that if a researcher does not utilize random selection procedures, there could be a violation of a major assumption that inferences to the total population could be made from the results. There were many techniques for random sampling that could have been used for this research project. However, I used a systematic sampling technique of randomly drawing a slip of paper containing a name and address. According to Dillman's (1978, 1999) formula, the target sample size required was 400 based on the size of the total population.

I made a copy of the ISPI membership listing and each name and address was cut separately into small slips of paper. These slips of paper were then folded so that no names or addresses could be read and placed into a large box. I shook the box to ensure the slips of paper were mixed well. I reached into the box and randomly drew a slip of paper, one at a time. As I unfolded each piece of paper, I input the name and address into an Excel Spreadsheet. I repeated this process until a total of 400 names were selected and entered into the database. I printed labels and placed them on stamped envelopes for mailing the questionnaires to be completed. I also printed labels and placed them on the

stamped envelopes for mailing the completed questionnaires back to me.

Instruments Used in This Study

A variety of instruments, which measures stress, were reviewed and rejected, including the Job Stress Survey (Spielberger & Vagg, 1999), Maslach Burnout Inventory (Maslach & Jackson, 1996), Occupational Stress Indicator (Cooper & Payne, 1988), Stress Diagnostic Survey (Ivancevich & Matteson, 1976), and The Work Locus of Control Scale (Spector, 1988). While all of these questionnaires are valid research instruments, none of them define and measure occupational stress in terms acceptable to the design of this research project.

The Occupational Stress Inventory-Revised (OSI-R) (Osipow, 1998) was selected because it provides generic measures of occupational stressors that apply across different occupational levels and environments. It also provides measures linking sources of stress in the work environment, the psychological strains experienced by individuals from work stressors, and the coping resources available to combat the effects of stressors and to alleviate psychological strain. The OSI-R was a purchased instrument from Psychological Assessment Resources, Inc. Because it is copyrighted material, it is not included as part of this document.

Occupational Stress Inventory-Revised (OSI-R)

The original Occupational Stress Inventory (OSI) was developed for two primary reasons: to develop generic measures of occupational stressors that would apply across different occupational levels and environments; and to provide measures for an integrated theoretical model linking sources of stress in the work environment, the psychological strains experienced as a result of work stressors, and availability of personal coping

resources. The Occupational Stress Inventory-Revised (OSI-R) was updated to provide normative data for both gender and occupational categories and to modify several existing items as well as add new items for each of the three subscales.

The three subscales of the Occupational Stress Inventory-Revised (OSI-R) were identified as Occupational Roles Questionnaire (ORQ), Personal Style Questionnaire (PSQ), and Personal Resources Questionnaire (PRQ). The ORQ Subscale was developed to measure stress-inducing work roles, which included role overload, role insufficiency, role ambiguity, role boundary, responsibility, and physical environment. The PSQ Subscale reflected affective responses, which included vocational strain, psychological strain, interpersonal strain, and physical strain. The PRQ Subscale measured personal coping resources, which included recreation, self-care, social support, and rational/cognitive coping. Measurements for each of the subscales were on a Likert Scale that ranged from one to five, with one being low and five being high.

Studies (as reported by Osipow, 1998) have been conducted to determine the reliability and internal consistency of the original Occupation Stress Inventory Questionnaire. Two-week test-retest reliabilities based on a sample of 31 employed adults for total questionnaire scores (i.e., sum of scores across all scales) were .90 for the Occupational Role Adjustment Subscale, .94 for the Psychological Strain Subscale, and .88 for the Personal Resources Subscale. Two-week test retest reliabilities for the individual scales ranged from .56 to .94.

Reliability for the Occupational Stress Inventory-Revised (OSI-R) (Osipow, 1998) was accomplished in two ways. Lombard (1977) analyzed test-retest reliability data by administering the OSI-R to a sample of 62 Air Force Cadets over a 2-week

period. Correlations among the total questionnaire score and the three subscales ranged from a low of .39 to a high of .74. Only two correlations were less than .50, and all correlations between the two administrations were significant at the .01 level. The second reliability estimate used was an internal consistency analysis with the normative sample. Alpha coefficients for total OSI-R total questionnaire scores were .88 for the Occupational Role Adjustment Subscale, .93 for the Psychological Strain Subscale and .90 for the Personal Resources Subscale. Coefficients for individual scales ranged from .70 to .89.

Validity data, for the Occupational Stress Inventory and the Occupational Stress Inventory-Revised (OSI-R) (Osipow, 1998) were derived from five principle sources and included convergent validity studies, factor analyses, correlational studies of the relationships of the scales to variables of practical and theoretical importance, studies using the scales as outcome measures following stress reduction treatment, and studies of the stress, strain, and coping model employing comparisons of selected criterion groups.

The Occupational Stress Inventory-Revised Questionnaire is a purchased instrument and is copyrighted. Therefore, a copy was not included with this study.

Management Empowerment Assessment Direct Reports (MEADR)

The search for an instrument to measure empowerment was more difficult than the search for an instrument that measured stress. There did not appear to be any instruments that measured empowerment in the workplace in terms of demonstrated behaviors. I contacted a friend who had conducted a study on empowerment for which he developed two instruments. I reviewed and selected the Management Empowerment Assessment Direct Reports (MEADR) (Briggs, 1999) because it measured empowerment

behaviors of leaders as reported by their subordinates in three critical areas: trust, enablement, and encouragement. Additionally, the variables measured by the Management Empowerment Assessment Direct Reports questionnaire complimented the items measured by the Occupational Stress Inventory-Revised (OSI-R). A letter granting permission to use the MEADR Questionnaire is provided in Appendix A. A copy of the MEADR Instrument is contained in Appendix B.

As reported by Briggs (1999) the design of the Management Empowerment Assessment Direct Reports (MEADR) was accomplished through collaboration among a team consisting of organizational development professionals, managers, and non-managerial individuals. This collaborative process helped ensure that the issues of both content and construct validity of the MEADR were addressed. Because the team represented three critical areas for an organization, (organizational development, management, and labor), the team could validate that the questions were pertinent to the specific behaviors being addressed, and that the answers provided were consistent behavioral assessments. In terms of construct and content validity, the MEADR instrument required responses across nine behavioral elements, which together represent a consensus theoretical view of the behaviors that constitute empowerment.

The Management Empowerment Assessment Direct Reports (MEADR) was tested for reliability across a pilot group. A test and retest was conducted with the pilot group. Briggs (1999) used the Pearson Correlation Coefficient method to determine the stability of the MEADR. As reported by Briggs, the correlation coefficients between the test and retest across all empowerment components for the MEADR ranged from a high of $r = .96$ (Resources) to a low of $r = .86$ (Accountability). The coefficient for the overall

empowerment assessment was $r = .92$.

Demographic Survey

A demographic sheet, designed by the researcher in conjunction with Dr. Ernest W. Brewer, The University of Tennessee, also was used to collect demographic data. Specifically we developed the demographic sheet to collect both descriptive and professional data of participants. The eight variables and their quantifiable levels were (a) age, described as up to 21 years, 22-30 years, 31-40 years, 41-50 years, 50 and over; (b) race, described as African American, Asian American, White, Hispanic, Native American (Indian/Alaskan), and other; (c) marital status, described as married, single, divorced, separated, and other; (d) work schedule described as flextime, compressed workweek, tele-work (work from home), and self-directed work team; (e) education, described as high school, associates degree, masters degree, and doctorate; (f) length of service (seniority), described as up to 5 years, 6-10 years, 11-15 years, 16-20 years, 21-25 years, and 26 years or more; (g) average number hours worked each week, described as less than 30 hours, 31-40 hours, and 41 or more hours; and (h) gender, described as male or female. A copy of this sheet is contained in Appendix C.

Research Data Collection Methodology

I wrote a cover letter with help from Dr. Ernest W. Brewer, The University of Tennessee. A copy of this letter appears in Appendix D. In this letter, I introduced the proposed study and its objectives, provided an explanation of the two enclosed questionnaires, and gave instructions for completing and returning them. In addition, the Demographic Sheet was included in the packet sent to each member of the sample. The letter also explained that a one-dollar incentive was contained in the packet.

Labels were prepared and placed on stamped envelopes. There was an envelope addressed to the participant and an envelope addressed back to the researcher. The survey questionnaires were numbered for tracking purposes. The packets were mailed to the target population during the first week of November.

Using Dillman's (1999) follow-up procedures, e-mails were sent to members of the target audience after 4 weeks, where e-mail addresses were listed in the membership directory (Appendix E). A follow-up postcard (Appendix F) was sent to target audience members who had no e-mail address listed. Both the e-mails and the follow-up postcards urged the individuals to please complete and return the questionnaires.

As I received the envelopes, I highlighted each name on the target audience listing to show they had been returned. I entered the data from the questionnaires into an Excel Spreadsheet. I have provided the key code I used for the database in Appendix G.

I transferred the data to Statistical Package for the Social Sciences (SPSS) software so I could perform analyses. Each of the subscales on the Occupational Stress Inventory-Revised had questions that required reverse scoring. Questions 5, 6, 11, 12, 14, 15, 16, 17, 19, 21, 22, 24, 25, 27, 28, 29, 30, 34, 35, 38, and 50 on the Occupational Role Subscale required reverse scoring. Questions 6, 8, 9, 14, 19, 20, 24, 27, 39, and 40 on the Psychological Strain Subscale and Question 8 on the Personal Resources Subscale also required reverse scoring.

Data Analysis

I designed and conducted the research project to answer questions of particular interest. As an external and internal consultant, I have spent many years working with teams, helping design participative management structures, and assisting organizations in

implementing empowerment strategies. Additionally, I have developed many theories about the levels of occupational stress and psychological strain and possible management tools for reducing each. Because I am a working woman, I also developed theories about levels of occupation stress and psychological strain between genders. To further research these theories, I developed, tested, and analyzed the following null hypotheses.

- H₀1: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational stress levels of subordinates.
- H₀2: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational role adjustment of subordinates.
- H₀ 3: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and psychological strain levels of subordinates.
- H₀ 4: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and the availability of personal coping resources of subordinates.
- H₀ 5: There are no significant differences in occupational stress levels based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.
- H₀ 6: There are no significant differences in occupational role adjustment based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.
- H₀ 7: There are no significant differences in psychological strain based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.
- H₀ 8: There are no significant differences in personal coping resources based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.

I tested and analyzed these hypotheses using three statistical procedures, correlation analysis, multivariate analysis of variance (MANOVA), and multiple

regression analysis. A discussion of each analytical procedure is provided below and on the following pages.

Correlational Analysis

In an effort to understand and enumerate the linear relationship between the variables mentioned in hypotheses one through four, the correlation coefficient (r) was employed. I used SPSS (SPSS, 1999) to calculate this statistic. Specifically, the statistic used was Pearson's product-moment correlations coefficient or Pearson's r . The correlation coefficient provides a measure of linear relationship between two variables (Gay, 1996; Nunnally & Bernstein, 1994). Correlation coefficients are defined by values ranging from -1.0 to +1.0, inclusive, with the negative and positive sign indicating the direction; the negative sign does not suggest bad nor does the positive sign suggest good (Hinkle, Wiersma, & Jurs, (1994). A correlation coefficient of zero indicates that the data are not related.

A scatter diagram, which provides a picture of the relationships between variables, is typically used to depict relationships between two variables. In a perfect correlation, all the points in the scatter diagram would lie on a straight line. Hinkle, Wiersma, and Jurs (1994) cautioned that, even though variables are correlated, causality between variables may not be inferred necessarily and must be examined in the context of the specifics of the situation.

Multivariate Analysis of Variance

I used a multivariate analysis of variance (MANOVA) procedure to identify any mean differences in the variables of interest for Null Hypotheses Five through Eight. I also used SPSS to examine the data. In this study, the MANOVA model was used to

determine if there were mean differences between subgroups, based on demographic variables, on items of interest. I used the MANOVA procedure to compare the means of the groups to identify any differences from a normal distribution. If differences were identified, a probability value would be determined that indicated the chance that the means derived from the same distribution. This probability would be derived from the calculated F ratio of within and between variance (Johnson, 1998).

Regression Analysis

I conducted regression analysis to determine whether or not a predetermined combination of the independent variables could be used to predict the dependent variable. This procedure can determine the equation that best represents the relationship between the dependent and independent variables. This analysis can be used to calculate regression coefficients (b-weights are calculated for unstandardized data and beta weights are calculated for standardized data) and an intercept. Each regression coefficient explained both the direction (whether it is positive or negative) and the magnitude of the relationship with the dependent variable (Inman, 1994).

Summary

This chapter provided information regarding the research design, methods, and procedures used in this study. The participants in the study consisted of members of ISPI and they were randomly selected from a total population of over 9,000 individuals. Each participant received a packet of information containing a cover letter, an Occupational Stress Inventory-Revised Questionnaire (OSI-R), an Occupational Stress Inventory-Revised Booklet containing 140 questions, a Management Empowerment Assessment Direct Reports (MEADR) Questionnaire, a Demographic Sheet containing eight

demographic questions, a one-dollar incentive, and a self-addressed stamped envelope for returning completed packets. Following the data collection, I performed the appropriate statistical analyses, which included correlation analysis, multivariate analysis of variance (MANOVA), and multiple regression analysis.

CHAPTER IV

ANALYSIS OF DATA AND RESULTS

This chapter describes the context for the research and provides an in depth description of the data analysis performed from the returned survey questionnaires. Additionally, a discussion of the acceptance or rejection of the research hypotheses described in Chapter 1 has been included.

Survey Return Rate

Of the 400 packets mailed to the target audience during November of 2001, there were 33 packets returned by the U.S. Postal Service stamped as unknown at that address. This could have been due to the business climate, which has been unstable over the past decade as workers experienced downsizing, rightsizing, reengineering, mergers, and acquisitions (Hammer & Champy, 1993; Kaplan & Norton, 2001; Smith, 1995; Stahl & Bounds, 1991). These turbulent changes to organizations have resulted in individuals involuntarily losing their job or voluntarily leaving companies because of undesirable work conditions. One respondent returned his packet uncompleted with a note stating that he objected to the whole design of the research project. I sent him a follow-up e-mail asking for a clarification of his objections, but he did not respond.

There were 160 completed packets returned, or a response return rate of 40%. One reason for the limited participation in the survey could have been that the questionnaires were mailed out just two months after the terrorists attacked the World Trade Center in New York and the Pentagon in Washington D.C. on September 11, 2001. Despite the horrible events that were happening in the United States during this period, many of the respondents wrote nice notes wishing me the best, and a large number of the

respondents stated they thought the research project was interesting. Seventy-nine percent indicated that they would like to receive copies of the results of the research.

Sample Population Demographic Data

Of the 160 respondents, there were five respondents who returned completed demographic sheets but they did not complete the Occupational Stress Inventory-Revised Questionnaire or the Management Empowerment Assessment Direct Reports Questionnaire. These respondents wrote comments stating that they were consultants and as such did not report to a supervisor or manager, and they felt that these questionnaires were not relevant to them. Their demographic data, however, was included in the research results.

The sample population was almost evenly divided between gender, with 48% males and 49% females. Three percent of the sample population failed to specify their gender. The majority of respondents, 90%, reported their race as White. Thirty-seven percent of the participants reported being in the 41-50 age group, and 36% reported their age as being in the 50 and older age group.

In terms of tenure, 34% reported that they had been in their present job five years or less, and 50% reported that they had been in their present job over eleven years. Fifty percent of the target audience reported having a Master's degree and approximately 18% reported having a doctorate. Thus 68% of the target audience reported an educational level of Master's and above. Eighty percent of the respondents indicated that they worked 41 or more hours per week. Twenty-one percent reported their job title as Manager, while 20% reported that they worked in a training related function. Eleven percent reported

their job title as Consultant and 7% percent reported job titles of Director. Summary data for demographic variables for all subjects are presented in Table 4.1.

Reliability Coefficients

Reliability analyses were performed on each of the subscales used for this sample. Using Cronbach's alpha as the statistic (Nunnally & Bernstein, 1994), each subscale demonstrated acceptable internal consistency as indicated in Table 4.2. Babbie (1983) indicates that "reliability is a matter of whether a particular technique, applied repeatedly to the same object, would yield the same result each time" (p. 113). However, he also cautioned that "reliability does not insure accuracy" (p. 114). My analyses indicate that the results meet the minimum requirements of reliability, alpha of .8, on this sample. Additionally, split-half reliability estimates were calculated and are also presented in Table 4.2. This procedure divided each test into two forms (e.g., odd numbered items and even numbered items) and calculated the correlation between the two forms. Nunnally and Bernstein (1994) indicated that alpha estimates of reliability "can be shown to equal the average of all possible correlations obtainable by splitting the test in half different ways" (p. 254).

Review of Research Questions and Null Hypotheses

A summary of the research questions and null hypotheses are described below. Correlational analyses were conducted to examine Null Hypotheses One through Four for significant relationships, and the results for each null hypothesis are also discussed.

Research Question One

Research question one sought to examine the potential relationship between empowerment behaviors demonstrated by organizational leaders and overall occupational

Table 4.1***Demographic Information of Survey Participants (N = 160)***

Demographic Parameter	Frequency	Valid Percent	Cumulative Percent
Gender			
Male	76	47.5	47.5
Female	78	48.7	96.0
Non-Reported	6	3.8	100.0
Race			
African American	7	4.4	4.4
Asian American	1	.6	5.0
White	144	90.0	95.0
Hispanic	1	.6	95.6
Native American (Indian/Alaskan)	1	.6	96.2
Other	1	.6	96.8
Non-Reported	5	3.1	100.0
Marital Status			
Married	117	73.1	73.1
Single	16	10.0	83.1
Divorced	12	7.5	90.6
Separated	7	4.4	95.0
Non-Reported	8	5.0	100.0
Age			
Up to 21 years	0	0	0
22-30 years	4	2.5	2.5
31-40 years	34	21.3	23.8
41-50 years	59	36.9	60.7
50 & Older	58	36.3	97.0
Non-Reported	5	3.1	100.0
Education			
High School	4	2.5	2.5
Associate Degree	7	4.4	6.9
Bachelor's Degree	35	21.9	28.8
Master's Degree	80	50.0	78.8
Doctorate	29	18.1	96.9
Non-Reported	5	3.1	100.0

Table 4.1 (Continued)

Demographic Parameter	Frequency	Valid Percent	Cumulative Percent
Work Schedule - Flextime			
No	68	42.5	42.5
Yes	70	43.8	86.3
Non-Reported	22	13.7	100.0
Work Schedule - Compressed Work Week			
No	105	65.6	65.6
Yes	12	7.5	73.1
Non-Reported	43	26.9	100.0
Work Schedule - Tele-Work From Home			
No	69	43.1	43.1
Yes	61	38.1	81.2
Non-Reported	30	18.8	100.0
Work Schedule - Self-Directed Work Teams			
No	86	53.8	53.8
Yes	35	21.9	75.7
Non-Reported	39	24.3	100.0
Job Title			
Consultant	17	10.6	10.6
Support Personnel	5	3.1	13.7
Director	9	5.6	19.3
Manager	34	21.3	40.6
CEO	2	1.3	41.9
Training Personnel	32	20.0	61.9
Vice President	4	2.5	64.4
College Dean	2	1.3	65.7
Supervisor	1	.6	66.3
Organizational Development	4	2.5	68.8
Graduate Assistant	2	1.3	70.1
President	2	1.3	71.4
School Principal	2	1.3	72.7
Administrative Personnel	3	1.9	74.6
Professor	2	1.3	75.9
Scientist	1	.6	76.5
Non-Reported	38	23.7	100.0

Table 4.2***Reliability Coefficients***

Occupational Stress Subscales	Cases	Items	Alpha	Split-half
Occupational Role Adjustment	143.0	60	.8952	.7224
Psychological Strain	141.0	40	.9369	.8763
Coping Resources	144.0	40	.9028	.7061
Empowerment Subscales				
Trust	144.0	4	.9156	.8760
Enablement	135.9	16	.9393	.9251
Encouragement	136.0	16	.9584	.9267

stress, as defined by occupational role adjustment, psychological strain, and availability of personal coping resources of subordinates. To answer question one, participants were asked to complete 36 questions on the Management Empowerment Assessment Questionnaire Direct Reports (MEADR) and 140 questions on the Occupational Stress Inventory-Revised (OSI-R) Questionnaires.

Null Hypothesis One

H₀₁: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational stress levels of subordinates.

Null Hypothesis One predicted there would be no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational stress of subordinates. To test Null Hypothesis One, the statistic used was Pearson's product-moment correlation coefficient or Pearson's *r*. The observed correlation between the two

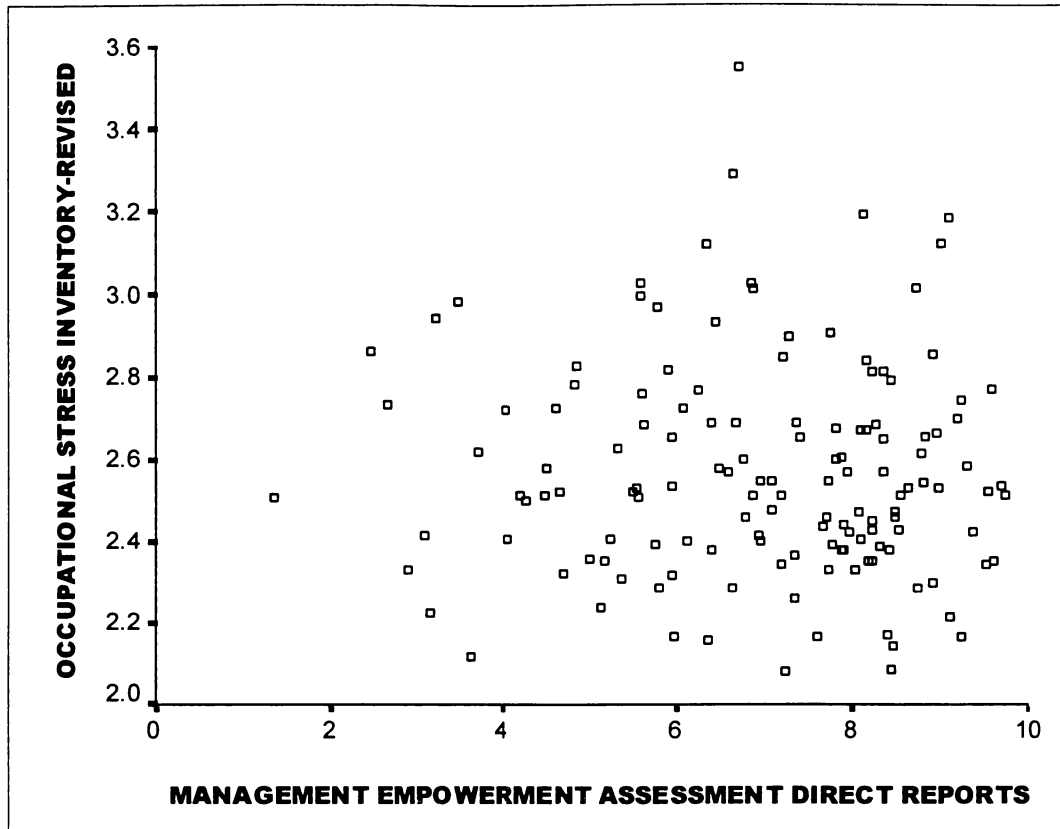


Figure 4.1. Scatter diagram of linear relationship of OSI-R scale and MEADR scale.

variables was $r = -.043$ ($p = .613$). At the .05 level of significance, Null Hypothesis One could not be rejected and was, therefore, retained. To provide a visual image of the possible relationship between empowerment and occupational stress, a scatter diagram was plotted and is contained in Figure 4.1.

Null Hypothesis Two

H₀₂: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational role adjustment of subordinates.

As stated by Null Hypothesis Two, no significant relationship was predicted between empowerment behaviors and occupational role adjustment of subordinates. The

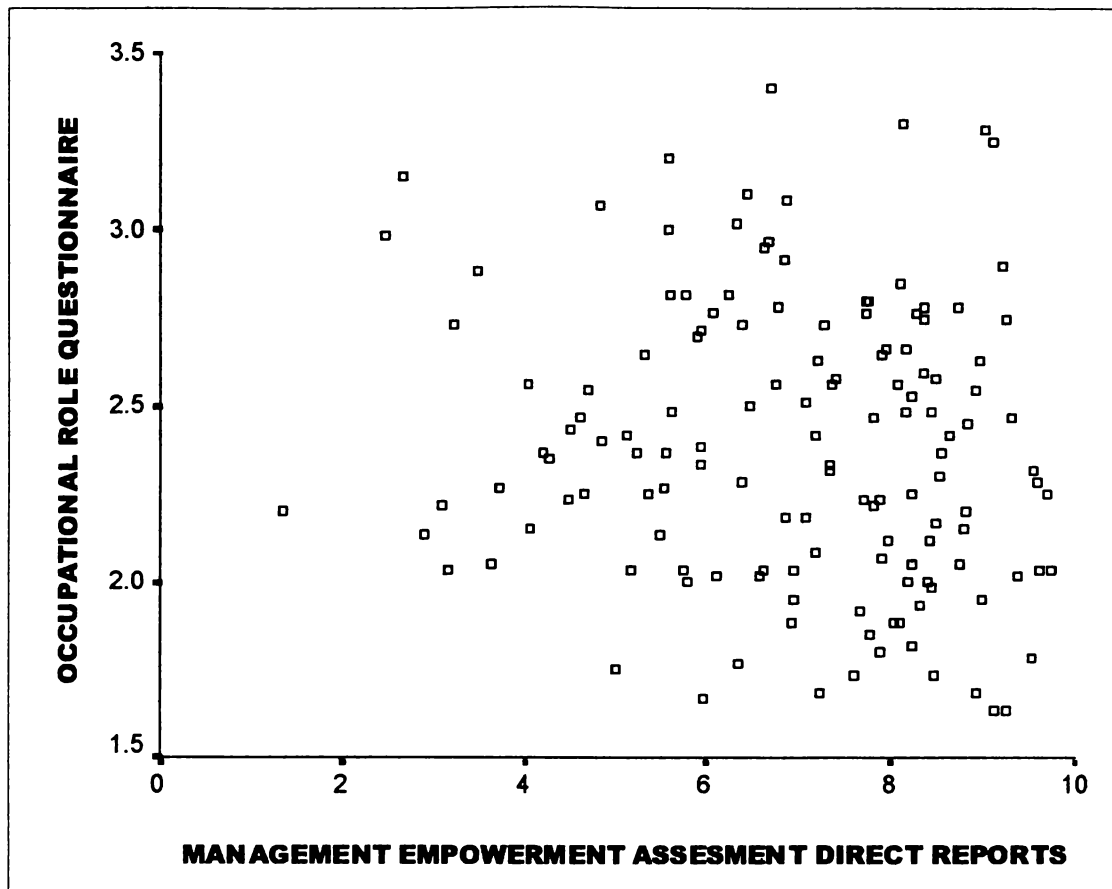


Figure 4.2. Scatter diagram of linear relationship of ORQ Subscale and MEADR scale.

observed correlation between the variables was $r = -.133$, ($p = .116$). At the .05 level of significance, Null Hypothesis Two could not be rejected, and it was, therefore, retained.

An inspection of the scatter diagram contained in Figure 4.2 provides an intuitive appreciation of the degree of relationship between empowerment and the subscale of Occupational Role Adjustment.

Null Hypothesis Three

- H₀3: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and psychological strain levels of subordinates.

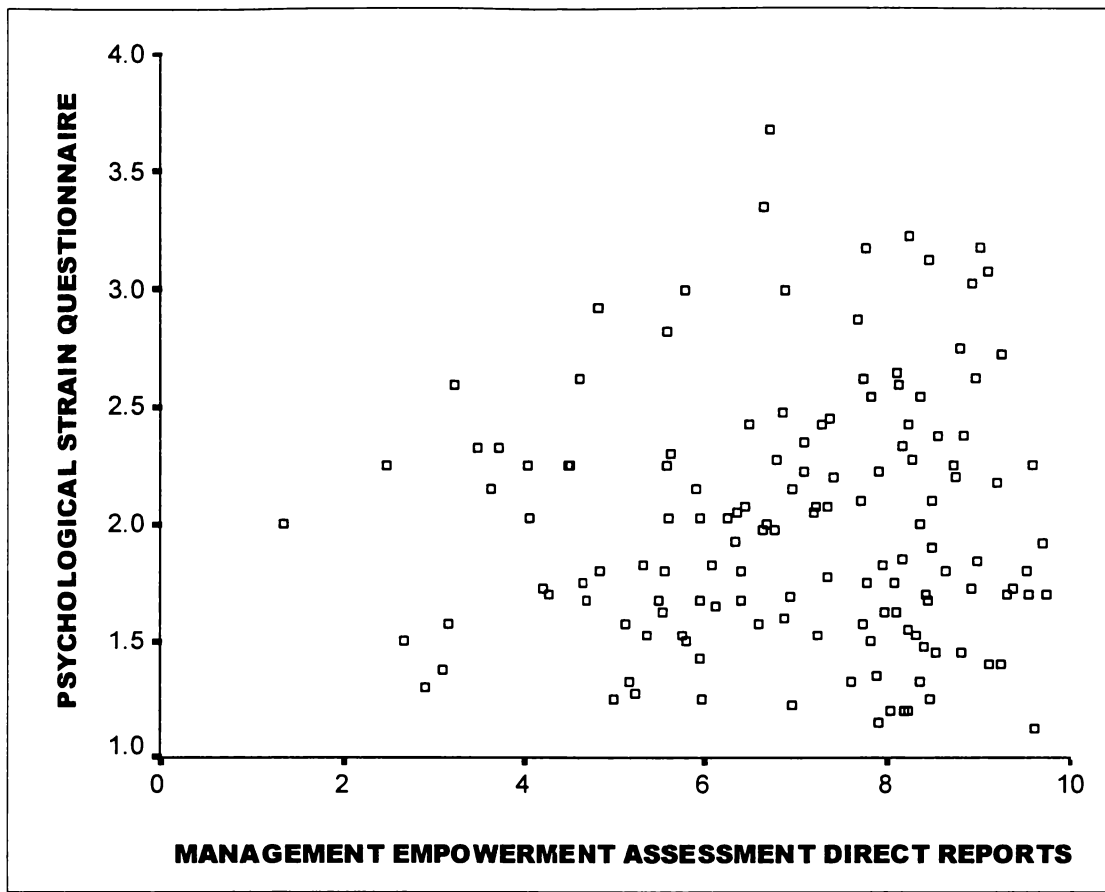


Figure 4.3. Scatter diagram of linear relationship of PSQ Subscale and MEADR scale.

Null Hypothesis Three predicted there was no significant relationship between empowerment behaviors and psychological strain levels of subordinates. The observed correlation between the variables was $r = .049$, ($p = .569$). At the .05 level of significance, Null Hypothesis Three could not be rejected, and it was, therefore, retained. A scatter diagram was plotted in order to provide a visual image of the possible relationship between empowerment and psychological strain, and it is contained in Figure 4.3.

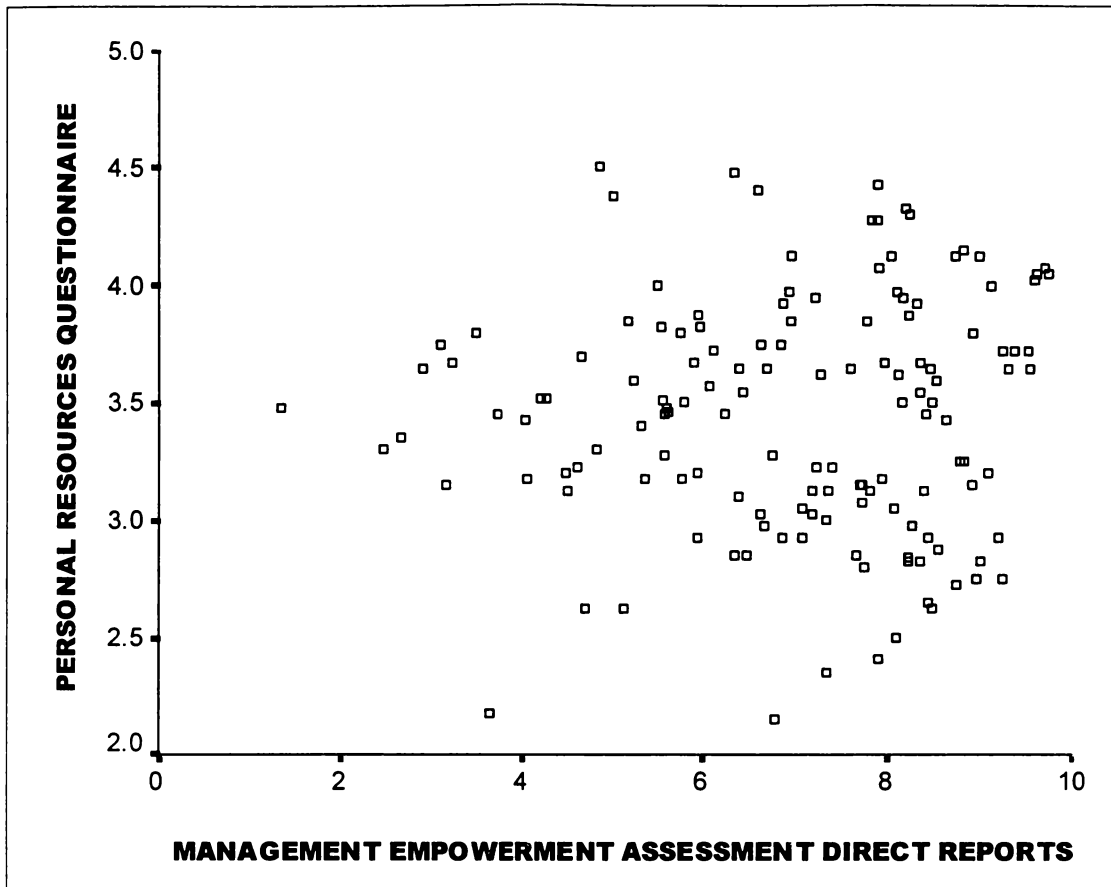


Figure 4.4. Scatter diagram of linear relationship of PRQ Subscale and MEADR scale.

Null Hypothesis Four

H₀4: There is no significant relationship between empowerment behaviors demonstrated by organizational leaders and the availability of personal coping resources of subordinates.

Finally, Null Hypothesis Four predicted there would be no significant relationship between empowerment behaviors demonstrated by organization leaders and the availability of personal coping resources of subordinates. This hypothesis failed to be rejected by the data ($r = .037$, $p = .661$) at the .05 level of significance and was therefore retained. A scatter diagram was plotted showing the possible linear relationship between empowerment and availability of personal coping resources (see Figure 4.4).

Table 4.3***Correlation Matrix***

Variables	M	SD	MEADR	OSI-R	ORQ	PSQ	PRQ
MEADR	6.93	1.82	1.000				
OSI-R	2.57	0.26	-0.043	1.000			
ORQ	2.39	0.40	-0.133	0.836*	1.000		
PSQ	2.01	0.54	0.049	0.706*	0.627*	1.000	
PRQ	3.44	0.50	0.037	0.060	-0.305*	-0.484*	1.000

* $p < .01$

Intercorrelations Among Variables

The correlation matrix for the variables measured by the Management Empowerment Assessment Direct Report and the variables measured by the Occupational Stress Inventory-Revised are contained in Table 4.3. This table contains the correlations between the empowerment scale and the occupational stress inventory scale as well as its subscales. As discussed previously, Hypotheses One through Four could not be rejected at the .05 level of significance and they were, therefore, retained.

Research Question Two

Research question two focused on determining whether or not there were significant differences in occupational stress levels, occupational role adjustment, psychological strain, and availability of personal coping resources based on certain demographic variables. To gather data to answer this question, participants were asked to complete a demographic sheet that inquired about the subjects' age, race, marital status,

work schedule, education, seniority, work hours, gender, and job title and to answer the 140 questions on the Occupational Stress Inventory-Revised (OSI-R) Questionnaire.

Null Hypotheses Five through Eight were tested by performing multivariate analysis of variance procedures (MANOVAs). These hypotheses are discussed below and on the following pages.

Null Hypothesis Five

H₀₅: There are no significant differences in occupational stress levels based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.

Null Hypothesis Five predicted there would be no significant differences in occupational stress levels based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title. I used a multivariate analysis of variance (MANOVA) procedure to compare the means of the groups to identify possible differences from a normal distribution. From the results, this hypothesis could not be rejected at a .05 level of significance and H₀₅ was retained (see Table 4.4).

Null Hypothesis Six

H₀₆: There are no significant differences in occupational role adjustment based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.

Null Hypothesis Six predicted there would be no significant differences in occupational role adjustment based on the demographic variables. At the .05 level of significance, the data failed to reject this hypothesis, and H₀₆ was retained (see Table 4.5).

Table 4.4***Occupational Stress Inventory-Revised MANOVA for Demographic Variables
Between Groups***

Source	SS	df	MS	F	Pr>F
Age	.0408	3	.0136	.198	.897
Race	.0597	3	.0199	.291	.832
Marital Status	.4456	4	.0111	.163	.956
Flextime	.0045	1	.0045	.065	.800
Compressed Workweek	.0062	1	.0062	.090	.765
Telework-Work from home	.0014	1	.0014	.020	.889
Self-Directed Work Teams	.0202	1	.0202	.295	.590
Education	.0324	3	.0108	.158	.924
Service	.2300	5	.0460	.671	.648
Hours	.0754	2	.0377	.550	.581
Gender	.1220	1	.1220	1.784	.189
Title	.6910	14	.0494	.720	.743
Occupational Stress Inventory—Revised Within Groups	3.015	44	.0685	--	--

* $p < .05$

Table 4.5***Occupational Role Subscale MANOVA for Demographic Variables Between Groups***

Source	SS	df	MS	F	Pr>F
Age	.1620	3	.0540	.304	.897
Race	.1010	3	.0336	.189	.903
Marital Status	.2660	4	.0666	.375	.825
Flextime	.0019	1	.0019	.011	.917
Compressed Workweek	.0359	1	.0359	.202	.655
Telework-Work from home	.0039	1	.0039	.042	.882
Self-Directed Work Teams	.0952	1	.0952	.536	.468
Education	.2580	3	.0859	.484	.695
Service	1.274	5	.2550	1.435	.231
Hours	.1600	2	.0801	.451	.640
Gender	.3380	1	.3380	1.903	.175
Title	2.140	14	.1530	.860	.604
Occupational Role Questionnaire Within Groups	7.817	44	.1780	--	--

* $p < .05$

Null Hypothesis Seven

H₀7: There are no significant differences in psychological strain based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.

Hypothesis Seven predicted there would be no significant differences in psychological strain based on the demographic variables. At the .05 level of significance, the data failed to reject this hypothesis, and H₀7 is retained (see Table 4.6).

Null Hypothesis Eight

H₀8: There are no significant differences in personal coping resources based on age, race, marital status, work schedule, education, seniority, work hours, gender, and job title.

Null Hypothesis Eight predicted there would be no significant differences in personal coping resources based on the demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title. At the .05 level of significance, each of the demographic variables failed to be rejected except for the work schedule of self-directed work teams (see Table 4.7).

As the analysis for Null Hypothesis Eight indicates, there were significant differences in the Personal Resources Subscale based on participants' endorsement of the work schedule of self-directed work teams ($F = 4.185, p = .047$). As shown in Figure 4.5, those who responded yes to participating in self-directed work teams reported a lower level of available personal coping resources.

Table 4.6***Psychological Strain Subscale MANOVA for Demographic Variables Between Groups***

Source	SS	df	MS	F	Pr>F
Age	.3380	3	.1130	.415	.743
Race	.4110	3	.1370	.504	.681
Marital Status	.1730	4	.0432	.159	.958
Flextime	.0295	1	.0295	.108	.743
Compressed Workweek	.1650	1	.1650	.608	.440
Telework-Work from home	.0853	1	.0853	.314	.578
Self-Directed Work Teams	.8780	1	.8780	3.230	.079
Education	.3170	3	.1060	.389	.762
Service	.9810	5	.1960	.722	.611
Hours	.1490	2	.0745	.274	.762
Gender	.2120	1	.2120	.780	.382
Title	1.646	14	.1180	.433	.955
Psychological Strain Questionnaire Within Groups	11.96	44	.2720	--	--

* $p < .05$

Table 4.7***Personal Resources Subscale MANOVA for Demographic Variables Between Groups***

Source	SS	df	MS	F	Pr>F
Age	1.046	3	.349	1.611	.200
Race	.7840	3	.261	1.207	.318
Marital Status	.9120	4	.228	1.054	.391
Flextime	.0146	1	.01462	.0680	.796
Compressed Workweek	.0151	1	.01509	.0700	.793
Telework-Work from home	.0091	1	.009116	.0420	.838
Self Directed Work Teams	.9060	1	.906	4.185	.047*
Education	1.197	3	.399	1.843	.153
Service	.8360	5	.167	.7730	.575
Hours	.1030	2	.05166	.2390	.789
Gender	.0308	1	.03075	.1420	.708
Title	2.334	14	.167	.7700	.694
Personal Resources Questionnaire Within Groups	9.525	44	.216	--	--

* $p < .05$



Figure 4.5. Mean differences in personal coping resources for members of self-directed work teams

Table 4.8

***Summary of Regression Analysis for Variables Predicting Empowerment Behaviors
(N = 136)***

Variable	B	<u>SE B</u>	β
Occupational Role Subscale	-1.190	0.477	-0.266
Psychological Strain Subscale	0.854	0.394	0.252*
Coping Resources Subscale	0.284	0.342	0.079*

* $p < .05$

Regression Analysis

I conducted regression analysis using a model that consisted of the three variables mentioned previously (i.e., occupational role adjustment, psychological strain level, and personal coping resources). This model accounted for approximately 5% of the variance in the mean for empowerment ($r^2 = .051, f = 2.419, p = .069$). However this finding was not significant, and no other reasonable models fit the data. Regression weights are contained in Table 4.8.

Summary

The purpose of this study was to examine the relationship between demonstrated empowerment behaviors and occupational stress and the influence that demographic variables might have on occupational stress. Null Hypotheses One through Four explored the relationship between demonstrated empowerment behaviors and occupational stress. These hypotheses were not supported by the data. This indicates that, in this sample, demonstrated empowerment behaviors are not related to occupational stress levels of subordinates. Null Hypotheses Five through Eight examined demographic differences of

participants and their influence on occupational stress. Testing of Null Hypotheses Five, Six, and Seven failed to find significant differences between the occupational stress and the subscales of occupational role adjustment and psychological strain based on the demographic variables. Testing of Hypotheses Eight revealed that there were significant differences between availability of personal coping resources based on the demographic variable of the work schedule of self-directed work teams.

CHAPTER V

DISCUSSION, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

This chapter summarizes the overall research project and discusses the findings and implications. Recommendations for future research opportunities are also discussed.

Discussion of Research Project

This study grew out of a speculation that a relationship existed between empowerment and occupational stress. Specifically, I undertook this study to determine whether or not empowerment helped reduce occupational role stressors and psychological strain, and to determine whether empowerment helped increase the availability of personal coping resources. Of secondary interest, this study examined potential differences between occupational role adjustments, psychological strain, and personal coping resources based on demographic variables age, race, marital status, work schedule, education, length of service, hours worked weekly, and gender.

The measurement of empowerment among the sample population was accomplished through survey research in which the subjects provided self-assessments of the performance of their manager or leader. The empowerment survey contained questions across specific behaviors of empowerment as measured by subscales of trust, enablement, and encouragement. The measurement of occupational stress among the sample population was also accomplished through the use of survey research. The occupational stress survey contained questions designed to measure occupational role adjustment, psychological strain, and availability of personal coping resources. Subjects provided self-assessments of their occupational stress as measured by the three subscales.

I performed correlation analysis tests (Pearson's Product-Moment Correlation) to determine whether or not a relationship existed between empowerment and occupational stress. Correlation coefficients were also calculated to determine whether or not a relationship existed between empowerment and each of the Occupational Stress Inventory-Revised (OSI-R) Subscales of occupational role adjustment, psychological strain, and availability of personal coping resources. Specifically, Null Hypothesis One predicted there would be no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational stress levels of subordinates.

Null Hypothesis Two predicted there would be no significant relationship between empowerment behaviors demonstrated by organizational leaders and occupational role adjustment of subordinates. Null Hypothesis Three predicted there would be no significant relationship between empowerment behaviors demonstrated by organizational leaders and psychological strain levels of subordinates. Null Hypothesis Four predicted there would be no significant relationship between empowerment behaviors demonstrated by organizational leaders and the availability of personal coping resources of subordinates. Based on the results of the study, Null Hypotheses Two, Three, and Four could not be rejected and were, therefore, retained.

Additionally, participants were asked to complete eight questions concerning their demographic information. In Chapter IV, I reported frequencies and percentages with regard to the demographic data of the sample. Specifically, I performed multivariate analysis of variance (MANOVA) tests to determine any differences between occupational stress, occupational role adjustment, psychological strain, and availability of personal coping resources based on the demographic variables of age, race, marital status, work

schedule, education, seniority, work hours, gender, and job title. . Null Hypothesis Five predicted there would be no significant difference in occupational stress levels based on the previously mentioned demographic variables. Null Hypothesis Six predicted there would be no significant differences in occupational role adjustment based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title. Null Hypothesis Seven predicted there would be no significant differences in psychological strain based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title. At the .05 level of significance, Null Hypotheses Five through Seven could not be rejected and they were, therefore, retained.

Null Hypothesis Eight predicated there would be no significant differences in the availability of personal coping resources based on demographic variables of age, race, marital status, work schedule, education, seniority, work hours, gender, and job title. There was one significant finding, and Null Hypothesis Eight could be only partially rejected. The sample population that reported they worked on self-directed work teams also reported they had less personal coping resources available to them.

Both the Occupational Stress Inventory-Revised Questionnaire (Osipow, 1998) and the Management Empowerment Assessment Direct Reports Questionnaire (Briggs, 1999) had acceptable reliability reported. I reran reliability analyses with my sample using Cronbach's alpha as the statistic. Each subscale demonstrated acceptable internal reliability. However, because the results from the survey were not what I expected, I also ran a split-half reliability test, and each subscale again demonstrated acceptable internal consistency.

Implications of Study Findings

The body of existing literature supported the theory that empowered individuals have more control over their work and thus are less stressed than workers in other work structures (Conner, 1993; Guillory & Galindo, 1995; Jones & Bearly, 1988; Neush & Siebenaler, 1993). Many other researchers have documented findings that suggested a close relationship between individuals' ability to control and their stress levels (Folkman & Lazarus, 1980; Lazarus, 1966; Pearlin & Schooler, 1978). Seligman (1975) stated that lack of control fosters helplessness, a syndrome of cognitive, motivational, and emotional deficits produced by learning that events were not under one's personal control. Losing control has been associated with frustration and prolonged depression (Hanson, Larson & Snowdon, 1976).

Cassidy (1999) stated that the concept of control was perhaps the most important psychological variable in the stress process. They believed that the extent to which the external world allows, enhances and enables, an individuals to control their life (or the extent to which individuals perceive control) is a major determinant of stress and its health effects. Jackson (1983) studied the effects of participation in decision-making and potential intervening variable on role stressors and employee distress. He concluded that participation in decision making reduced role stressors and that perceived influence (control) was a mediating variable.

Many researchers believed that self-directed work teams and participative management structures were the key to employee involvement and control. Orsburn, Moran, Musselwhite, and Zenger (1990) defined self-direct work teams as highly trained groups of employees, fully responsible for turning out a well-defined segment of finished

work. They further described self-directed work teams as having more resources at their command than traditional teams do. They argued that self-directed work teams have a wider range of cross-functional skills within the team itself, much greater decision-making authority, and better access to the information needed for making sound decisions. However, Orsburn, Moran, Musselwhite, and Zenger cautioned that employees who participate in decision making for, at most a few hours a month, often become frustrated when their restricted involvement hampers serious effect. They argue that no transition to self-directed teams can succeed without the sustained efforts of a spirited leader. Guillory and Galindo (1995) stated that empowerment cannot exist without a clear commitment from the organization's leadership.

Other researchers also supported the importance of the role of leaders in helping employees successfully deal with occupational stressors (Bower, 1997; Kotter, 1996; Schein, 1992). Neush and Siebenaler (1993) identified important leadership characteristics that can be characterized as building trust, enabling employees to act and providing encouragement.

It can be inferred from what is currently known that empowerment behaviors exhibited by leaders can affect the occupational stress level of subordinates. This research project, however, found no significant relationship between empowerment and occupational stress. Of course, there could be a number of reasons for this finding.

Sixty-eight percent of the target audience reported their educational level as Master's degree or above. Highly educated workers are typically trained to work more autonomously than other workers, and the effect of the behaviors of their leaders may not have the same impact as it would for individuals with less education and training.

Twenty-one percent of the group reported their job title as Manager, ten percent reported their job title as Consultant, six percent reported their job title as Director, and three percent reported their job title as Vice President. Other job titles included CEO, College Dean, President, Scientist, School Principal and Professor. Each of these jobs typically provides more autonomy and freedom in decision making than in many other job titles. Workers, therefore, who work in these jobs may be less impacted by leadership behaviors than are other workers who do not have as much autonomy and freedom in decision making.

The timing of the research project could have been a factor. The research project was conducted just two months after September 11, 2001. September 11, 2001, could be remembered as one of the most horrific and unbelievable days ever experienced in the United States (*Washington Post*, 2001). The events of that day certainly affected every American and likely could affect every person in the world in some way. Hijackers took over the controls of four planes on September 11, 2001. Two of the hijacked planes plowed into the World Trade Center, another jetliner nose-dived into the Pentagon, and the fourth aircraft crashed into Pennsylvania woodlands after passengers tried in vain to overcome the terrorists. More than 3,000 people died in the terrorist attacks (*Washington Post*).

Additionally, during the timeframe that the packets for this study were mailed, there were major concerns about anthrax being placed inside mail, especially mail received from unknown persons. As reported by CNN News (2001), four individuals died from exposure to anthrax-laced letters and many others were infected.

Each of these unprecedented events could have affected not only the response but the results of the research as well. What if the world turned upside down on September 11th and this research project has provided early symptoms that something significant has happened to the world, as we have known it. At the least, it appears to raise serious questions about what is currently known about empowerment, self-directed work teams, and occupational stress.

Do the findings of this research project make invalid what is currently known about empowerment and occupational stress? Does empowerment, as it is implemented today, actually give employees' more control over their work or increase their perception of control over their work? Has occupational stress reached such a significant level that empowerment cannot affect it? Have we correctly identified behaviors that lead to employee empowerment? Do self-directed work teams actually have less personal coping resources and if so, why? Are our current educational and training programs adequately preparing individuals to be effective leaders?

Recommendations for Future Research

A preponderance of the literature strongly suggested that stress was a major factor in today's workplace and that major change, a significant contributing factor, would continue into the foreseeable future. The literature also appeared to support the theory that individuals needed to control their environment and when they were in control, they were less stressed. From this research project, it would appear that empowerment does not affect occupational stress. The results of this research project pose questions that offer great opportunities for additional research on determining whether or not empowerment does, in fact, decrease occupational stress. There is a need for this research project to be

replicated with a different target audience. A research project with a target audience that has a different cross section of workers, including both blue-collar workers and white-collar workers, could have different results.

Additionally, the findings of this research project suggested that there was no significant relationship between empowerment and occupational role adjustment, psychological strain, and availability of personal coping resources. Each of these subscales provides future research opportunities. Each subscale should be researched further to see if new information can be gleaned to add to or change the existing body of knowledge.

Another area of future research is leadership. Additional research is recommended that focuses on validating and enhancing what is known today about empowerment behaviors of leaders. The findings from such a research project could also help develop additional research questionnaires to accurately measure these behaviors.

Finally, there was a significant finding in the area of self-directed work teams. The literature suggested that individuals working on self-directed work teams would develop increased personal coping resources. The findings from this research project indicated that this was not the case. The individuals who reported working on self-directed work teams had lower levels of personal coping resources available to them than did individuals who reported different work schedules. This finding raises critical questions for further research and provides excellent opportunities to add to the existing body of knowledge. Does working in self-directed work teams cause individuals to have less personal coping resources available to them? If self-directed work teams do have less personal coping resources available to them, what should be changed in the work

environment? Additional research should be conducted that focuses specifically on self-directed work teams, and the work environments in which they work.

Conclusion

The findings from this research project were a surprise. I fully expected to reject each null hypothesis. Although the findings of one research project should not be accepted as significant the value of this study is in the questions that it raises. The recommendations contained in this study are made with the objective of seeking to further the body of existing knowledge. If our goals in the arena of human resources are to optimize an organization's most valuable asset, it is imperative that we seek new knowledge. It is with this goal in mind that further research is recommended so that we are successful in the attainment of these goals.

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APPENDICES

APPENDIX A
Letter of Permission

From: Glenn W. Briggs, Ph.D.
Webster University

Date: August 7, 2001

Subject: Academic Use of Copyrighted Materials

To: Ms. Vivian F. Marshall, Ph.D/ABD

Through this correspondence, you are hereby granted permission to use specific portions of my dissertation, *Introversion, Extroversion, and Empowerment Performance of Aerospace Managers* (1999, UMI Number 9932731), in the development and completion of your doctoral dissertation.

Per our conversation of August 6, 2001, the specific portions of the dissertation that you intend to reference are the *Balance of Empowerment leadership model* appearing on page 34, and the *Managerial Empowerment Assessment – Direct Report (MEADR)* survey instrument, Appendix G. Permission is granted under the standard conditions associated with the proper citations of copyrighted materials in theses and dissertations.

I highly recommend that care and thoroughness be exercised in the draft and use of your Informed Consent Form (see Appendix F), prior to the circulation of the MEADR among your subjects. If I may be of assistance to you in the endeavor, please do not hesitate to contact me, to include the use of other portions of my dissertation. I wish you success in your research into this very interesting area.

Sincerely, professionally,



Glenn W. Briggs, Ph.D.
Professor of Management
Webster University, Space Coast Campus

APPENDIX B

Management Empowerment Assessment-Direct Reports (MEADR)

MANAGEMENT EMPOWERMENT ASSESSMENT DIRECT REPORT

Instructions: Read each statement carefully and assess your manager's performance in each area by circling the appropriate number opposite the pertinent statement. Rating of 1 reflects the lowest performance; rating of 10 indicates the highest performance in the behavior. There are no right or wrong answers on this survey.

TRUST	Never	Sometimes	Always
01. I am able to confide in my manager without fear of retribution or a betrayal of confidence.	1	2 3 4 5 6 7 8 9	10
02. My manager will support my co-workers and I despite pressure to do otherwise.	1	2 3 4 5 6 7 8 9	10
03. I can rely on my manager to permit me to perform my assigned duties without interference or micro-managing.	1	2 3 4 5 6 7 8 9	10
04. Exhibiting trust in his/her subordinates is one of my manager's strong points.	1	2 3 4 5 6 7 8 9	10
ENABLEMENT	Never	Sometimes	Always
05. I am delegated sufficient authority by my manager to complete my assigned duties to the best of my abilities.	1	2 3 4 5 6 7 8 9	10
06. I am able to render decisions concerning my duties without my manager overriding my authority to make those decisions.	1	2 3 4 5 6 7 8 9	10
07. I am made clearly aware of boundaries established on authority delegated to me.	1	2 3 4 5 6 7 8 9	10
08. My manager periodically authorizes other employees and me to represent him/her at meetings and speak for the section.	1	2 3 4 5 6 7 8 9	10
09. My manager clearly establishes my accountability for tasks and projects assigned to me.	1	2 3 4 5 6 7 8 9	10
10. I am made aware of all schedules, time constraints, obligations, and ramifications associated with task completion.	1	2 3 4 5 6 7 8 9	10
11. When I am assigned responsibility for task completion, my manager makes me aware of the necessity for progress reports.	1	2 3 4 5 6 7 8 9	10
12. When my manager assigns responsibility for task completion, she/he ensures that the assignments are within my capability.	1	2 3 4 5 6 7 8 9	10
13. I am free to question or request changes in the scheduling or tasks for which I am held accountable.	1	2 3 4 5 6 7 8 9	10
14. The fair, equitable, and logical assignment of responsibility is one of my manager's attributes as a leader.	1	2 3 4 5 6 7 8 9	10
15. When I am assigned responsibility for task completion, I have no doubt concerning the boundaries of that responsibility.	1	2 3 4 5 6 7 8 9	10
16. Prior to the assignment of responsibilities, my manager confers with me to gain agreement on the nature of the task.	1	2 3 4 5 6 7 8 9	10
17. My manager provides me with adequate tools and resources to perform my assigned duties.	1	2 3 4 5 6 7 8 9	10

Used with permission of: Dr. Glenn Briggs, 3772 Sierra Drive, Merritt Island, Florida 32953

Please turn survey over to complete the other side.

ENABLEMENT	Never	Sometimes	Always
18. My manager is responsive to all reasonable requests for resources from all employees.	1	2	3 4 5 6 7 8 9 10
19. My fellow employees and I are consulted by our manager in the preparation of the resource budget.	1	2	3 4 5 6 7 8 9 10
20. My manager provides me with access to resources and publications pertaining to emerging technology and tools that are associated with my job.	1	2	3 4 5 6 7 8 9 10
ENCOURAGEMENT	Never	Sometimes	Always
21. My manager assists me in the establishment of realistic goals and expectations for my job and for my professional development.	1	2	3 4 5 6 7 8 9 10
22. The sharing of his/her experience and knowledge of the organizational culture is one of my manager's mentoring strengths.	1	2	3 4 5 6 7 8 9 10
23. My manager role models appropriate behaviors, attitudes, courtesy, and bearing as a matter of policy.	1	2	3 4 5 6 7 8 9 10
24. My manager personally delivers constructive feedback concerning my performance and development.	1	2	3 4 5 6 7 8 9 10
25. My professional and personal educational needs are provided for by my manager.	1	2	3 4 5 6 7 8 9 10
26. My manager maintains an awareness of trends in technology and methodology that may impact my personnel training needs.	1	2	3 4 5 6 7 8 9 10
27. My manager takes a personal, hands-on role in my development when possible.	1	2	3 4 5 6 7 8 9 10
28. Sufficient budget for my personal and professional development is provided by my manager.	1	2	3 4 5 6 7 8 9 10
29. Listening to subordinates' feedback and overall communication skills is one of my manager's strengths.	1	2	3 4 5 6 7 8 9 10
30. I can rely on my manager to disseminate job-related information in a timely and accurate manner.	1	2	3 4 5 6 7 8 9 10
31. I have no difficulty understanding directions, assignments, or positions communicated by my manager.	1	2	3 4 5 6 7 8 9 10
32. My manager conducts regular staff meetings, which feature the free interchange of information by all attendees, in addition to the provision of pertinent, organizational information.	1	2	3 4 5 6 7 8 9 10
33. My manager has an accurate sense of what motivates me to perform well on the job.	1	2	3 4 5 6 7 8 9 10
34. I receive timely and appropriate rewards for my job performance, when warranted.	1	2	3 4 5 6 7 8 9 10
35. My manager uses a balanced approach of incentives and rewards for motivating all employees.	1	2	3 4 5 6 7 8 9 10
36. My manager's motivational programs are fair, sincere, and are based upon my personal reward and motivational orientation.	1	2	3 4 5 6 7 8 9 10

APPENDIX C
Demographic Sheet

Demographic Questionnaire

Instructions: Please complete the information below and return this sheet, along with the *Occupational Stress Inventory-Revised* and the *Management Empowerment Assessment-Direct Reports* answer sheets in the return envelope.

Age

- ☐ Up to 21
- ☐ 22-30
- ☐ 31-40
- ☐ 41-50
- ☐ 50 & Over

Race or Ethnicity

- ☐ African American
- ☐ Asian American
- ☐ White
- ☐ Hispanic
- ☐ Native American (Indian/Alaskan)
- ☐ Other _____
(Please specify)

Marital Status

- ☐ Married
- ☐ Single
- ☐ Divorced
- ☐ Separated
- ☐ Other _____
(Please specify)

Do You Participate In:

- ☐ Yes ☐ No Flextime
- ☐ Yes ☐ No Compressed Workweek
- ☐ Yes ☐ No Telework (Work from home)
- ☐ Yes ☐ No Self-Directed Work Team

Education

- ☐ High School
- ☐ Associate Degree
- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ Doctorate

Length of service (current employer)

- ☐ Up to 5 years
- ☐ 6-10 years
- ☐ 11-15 years
- ☐ 16-20 years
- ☐ 21-25 years
- ☐ 26 years or more

Average number hours worked each week

- ☐ Less than 30 hours
- ☐ 31-40 hours
- ☐ 41 or more hours

Gender

- ☐ Male
- ☐ Female

Current Job Title

If you would like a copy of the findings from this study, please complete the following:

Name: _____

Mailing Address: _____

City, State, and Zip Code: _____

APPENDIX D
Participant Letter

THE UNIVERSITY OF TENNESSEE
KNOXVILLE



Department of Human Resource Development 2
5 HPER Building
1914 Andy Holt Ave.
Knoxville, Tennessee 37996-2745
(423) 974-4466 FAX: (423) 974-3961
ewbrewer@utkux. utcc. utk.edu

Dear:

Dr. Ernest W. Brewer, The University of Tennessee, and I are conducting a study focused on empowerment behaviors of leaders and possible reduced levels of stress and psychological strain in the workplace. As a fellow member of the International Society for Performance Improvement, I realize that your schedule is busy and your time is valuable but I desperately need your help. If you will complete and return the enclosed questionnaires, you will be contributing greatly to the research project and you will be helping me complete my requirements for graduation for which I will be extremely grateful. Enclosed you will find \$1.00 as a small token of my appreciation.

I have taken the liberty of enclosing an Occupational Stress Inventory-Revised (OSI-R) booklet and Questionnaire, a Demographics Questionnaire, and a Management Empowerment Assessment Direct Reports (MEADR) Questionnaire. Completion of the questionnaires should not take longer than approximately 30 minutes. Please be assured that the data collected will be used for research purposes only. The response sheets are coded for follow-up purposes and the highest level of confidentiality will be maintained. If you will, please complete all three questionnaires and return them, along with the OSI-R booklet, in the enclosed stamped envelope.

I will be glad to provide you with a summary of the research findings if you so indicate on the Demographic Questionnaire. If you have any questions about the study, you can contact me at 865-977-6838 or via e-mail at marsh@icx.com. Thank you in advance for your participation.

Sincerely,

Vivian Marshall

cc: Dr. Ernest W. Brewer
Professor
The University of Tennessee

APPENDIX E
E-Mail Follow-up

Subject: Follow-up to Stress/Empowerment Research Project
(University of Tennessee)

Approximately three weeks ago, you received a packet in the mail about participating in a national study on stress and empowerment. If you have already completed and returned this packet, I thank you for your participation. I recognize how busy your schedule is, especially this time of the year. However, I would really value your input. If you have not yet completed and returned the surveys, would you please do so by no later than January 15th, 2002? I desperately need your help and the results of this study could potentially help with identifying leadership characteristics that could lead to reduced stress in the workplace.

If you have any questions about this research project, or if you need another packet, please do not hesitate to contact me by calling 865-977-6838 (home) or 423-336-4737 (work) or you can e-mail me at VMarshall@olin.com. Thank you in advance for taking the time to participate. Happy holidays and I wish the best for you in the upcoming year.

APPENDIX F
Post Card Follow-up

Subject: Follow-up to Stress/Empowerment Research Project
(University of Tennessee)

Approximately three weeks ago, you received a packet in the mail about participating in a national study on stress and empowerment. If you have already completed and returned this packet, I thank you for your participation. I recognize how busy your schedule is, especially this time of the year. However, I would really value your input. If you have not yet completed and returned the surveys, would you please do so by no later than January 15th, 2002? I desperately need your help and the results of this study could potentially help with identifying leadership characteristics that could lead to reduced stress in the workplace.

If you have any questions about this research project, or if you need another packet, please do not hesitate to contact me by calling 865-977-6838 (home) or 423-336-4737 (work) or you can e-mail me at VMarshall@olin.com. Thank you in advance for taking the time to participate. Happy holidays and I wish the best for you in the upcoming year.

Vivian Marshall

APPENDIX G
Key Code Book

KEY/CODE BOOK

PART 1

Demographics Survey

Order	Name	Description	Values
1.	ID	Subject ID	1, N
2.		Age:	1 = <21 2 = 22-30 3 = 31-40 4 = 41-50 5 = >50
3.		Race	1 = African American 2 = Asian American 3 = White 4 = Hispanic 5 = Native American (Indian/Alaskan)
4.		Marital	1 = Married 2 = Single 3 = Divorced 4 = Separated 5 = Other
5.		Work Schedule #1	1 = Yes 0 = No
6.		Work Schedule #2	1 = Yes 0 = No
7.		Work Schedule #3	1 = Yes 0 = No
8.		Work Schedule #4	1 = Yes 0 = No
9.		Education	1 = High School 2 = Associate Degree 3 = Bachelor's Degree 4 = Master's Degree 5 = Doctorate
10.		Seniority/Service	1 = <5 years 2 = 6-10 years 3 = 11-15 years 4 = 16-20 years 5 = 21-25 Years 6 = 26 years or more
11.		Avg. Hours Work Week	1 = < 30 hours 2 = 31-40 hours 3 = 41 hours or more
12.		Gender	1 = Male 2 = Female

KEY/CODE BOOK

PART 1 (CONTINUED)

13.	Job Title	1 = Consultant 2 = Support Personnel 3 = Director 4 = Manager 5 = CEO 6 = Training 7 = Vice President 8 = Dean 9 = Supervisor 10 = Organizational Development 11 = Graduate Assistant 12 = President 13 = Principal 14 = Retired 15 = Administrative Personnel 16 = Self Employed 17 = Professor
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Management Empowerment Assessment Direct Report

Trust 1-4	1, 10
Enable 5-20	1, 10
Encour 21-36	1, 10

PART 2

OSI-R

Order	Name Description	Values
1.	ID	1, N
2.	Section 1 (ORQ)	S1-1 - S1-60
	Section 2 (PSQ)	S2-1 - S2-40
	Section 3 (PRQ)	S3-1 - S3-40

Vita

Vivian Gregory Marshall, daughter of Floyd James Gregory and Frances Hall Gregory, was born at her parent's home in Blount County, Tennessee. She graduated from Everett High School in Maryville, Tennessee in May 1959. She was married the same year and began working full time as a secretary. She had a son and did not begin working on a Bachelor Degree in business until her divorce in 1971. She attended Maryville College, The University of Tennessee and graduated Cum Laude from Tusculum College, Greeneville, Tennessee, in December 1987. The next month she enrolled at The University of Tennessee, Knoxville, Tennessee and began work on a Master's Degree. She graduated 13 months later with a Master's of Science Degree. By this time, she had gained enough confidence to enroll as a doctoral candidate at The University of Tennessee. She expects to graduate in August 2002.

Her career began at a mail order catalogue plant in Atlanta, Georgia, shortly after her high school graduation. In 1965, she and her family moved back to Maryville, Tennessee. She began working as a secretary for a manufacturing plant. She left her position as a secretary to take a job as an Office Manager for a major bedding company in 1968. After obtaining her Bachelor's Degree in 1987, she moved into a managerial position. Since that time she has worked in many managerial positions including Human Resource Manager, Materials Manager, Purchasing Manager, and Production Control Manager.

After starting work on her Master's Degree, she became interested in technical and adult education. She obtained a position as a Training Specialist with a major

manufacturing company in Alcoa, Tennessee. For the last 20 years, she has held numerous positions in Human Resources including Training Specialist, Training Manager, Internal Consultant, and External Consultant. She is currently employed with a major chemical manufacturer as a Training Manager and has responsibility for both technical and soft skills training and education for two manufacturing facilities.

She is an active member of the International Society for Performance Improvement (ISPI). She has held several offices in ISPI including treasurer, recorder, vice president, and president.

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09/24/02

✓ MFB

