



Faculty job satisfaction as a function of participative decision making in selected four-year colleges in the Northwest United States  
by Gregory Lee Hergott

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education  
Montana State University  
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**Abstract:**

The purpose of this study was to examine the relationships of perceived participation in decision making and faculty rank to job satisfaction of faculty members at 10 private institutions in the Northwest. Research was conducted in the spring of 1990. The problem was investigated by utilizing two survey instruments and four categories of faculty rank. The first survey was the Management Communication Style Instrument; it places the management styles of tell, sell, consult, and join on an 18-point continuum ranging from 10-28. The second survey instrument was the Job Description Index; this tool utilizes 72 responses to examine five components of job satisfaction: supervision, work, pay, promotion, and co-workers. The total sample for this analysis included 574 faculty members. There were 236 usable responses for a return rate of 41%.

The major findings of this study were: (1) management communication styles of consult and join were more highly related than a style of tell when examining job satisfaction with work; (2) the styles of consult and join were more highly related than the styles of tell and sell when examining job satisfaction with supervision; (3) when examining faculty rank and job satisfaction with pay, full professors were found to be more satisfied with their pay than the other ranks of assistant, associate, and other; (4) faculty were more satisfied with their pay if a management communication style of join was utilized; (5) faculty were more satisfied with the promotion process if they were a full professor; and (6) faculty were more satisfied with their co-workers if the management communication styles of join or consult were utilized. It was confirmed that faculty rank and management communication style can be important factors when examining job satisfaction. This research has confirmed these findings statistically through the analysis as well as with the reported review of literature.

Recommendations for further study include: (1) utilize additional variables to analyze job satisfaction in a higher education environment; (2) analyze institutions individually and perform follow-up studies to determine how and why these institutions differ in job satisfaction (case analysis); (3) compare faculty job satisfaction at private institutions to that of public institutions to determine where and why differences exist; (4) conduct further studies on situational leadership to determine if administrators utilize multiple styles, including "when" and "why"; and (5) conduct further studies on faculty rank and promotion process and determine whether these procedures are consistent among institutions.

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OF PARTICIPATIVE DECISION MAKING IN  
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THE NORTHWEST UNITED STATES**

by

**Gregory Lee Hergott**

**A thesis submitted in partial fulfillment  
of the requirements for the degree**

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APPROVAL

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This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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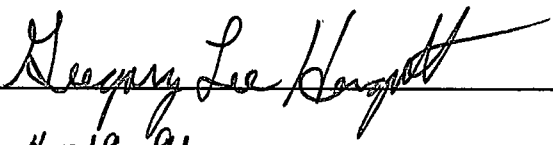
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## ABSTRACT

The purpose of this study was to examine the relationships of perceived participation in decision making and faculty rank to job satisfaction of faculty members at 10 private institutions in the Northwest. Research was conducted in the spring of 1990. The problem was investigated by utilizing two survey instruments and four categories of faculty rank. The first survey was the Management Communication Style Instrument; it places the management styles of *tell*, *sell*, *consult*, and *join* on an 18-point continuum ranging from 10-28. The second survey instrument was the Job Description Index; this tool utilizes 72 responses to examine five components of job satisfaction: supervision, work, pay, promotion, and co-workers. The total sample for this analysis included 574 faculty members. There were 236 usable responses for a return rate of 41%.

The major findings of this study were: (1) management communication styles of *consult* and *join* were more highly related than a style of *tell* when examining job satisfaction with work; (2) the styles of *consult* and *join* were more highly related than the styles of *tell* and *sell* when examining job satisfaction with supervision; (3) when examining faculty rank and job satisfaction with pay, full professors were found to be more satisfied with their pay than the other ranks of assistant, associate, and other; (4) faculty were more satisfied with their pay if a management communication style of *join* was utilized; (5) faculty were more satisfied with the promotion process if they were a full professor; and (6) faculty were more satisfied with their co-workers if the management communication styles of *join* or *consult* were utilized. It was confirmed that faculty rank and management communication style can be important factors when examining job satisfaction. This research has confirmed these findings statistically through the analysis as well as with the reported review of literature.

Recommendations for further study include: (1) utilize additional variables to analyze job satisfaction in a higher education environment; (2) analyze institutions individually and perform follow-up studies to determine how and why these institutions differ in job satisfaction (case analysis); (3) compare faculty job satisfaction at private institutions to that of public institutions to determine where and why differences exist; (4) conduct further studies on situational leadership to determine if administrators utilize multiple styles, including "when" and "why"; and (5) conduct further studies on faculty rank and promotion process and determine whether these procedures are consistent among institutions.

## CHAPTER 1

### INTRODUCTION

The economic turmoil of the 1980s has made it increasingly difficult for colleges and universities to retain quality faculty and staff. As we move into the 90s, this spiraling trend would lead one to believe that, at best, education will be fortunate just to maintain its current level of functioning without gaining any ground on the problems that have emerged throughout the 80s. Because of such extraneous variables as government funding cuts, decreased enrollments, and frozen or limited salary increases, faculty job satisfaction has been on the decline (Asmussen, 1983). An additional factor that has contributed to this decline is the lack of faculty participation in the decision making process. Asmussen (1983), in discussing a study conducted through the Institute of Higher Education at Columbia University Teachers College, stated that faculty morale and job satisfaction declined substantially from 1970 to 1980. This study concluded that the drop in morale was attributed to the decline of faculty involvement in their institution's planning and governance. The decline in participation resulted in reduced commitment and support to the institution and also to the

administration. Results of this study indicated a drop in participatory decision making from 64% in 1970 to 44% in 1980 (Asmussen, 1983).

These data appear to allude to the importance and possible connection between participation in campus decision making and job satisfaction. Additional researchers sharing similar views toward the importance of campus-wide participative decision making included Falcione (1974), Falcione et al. (1977), Harrison (1981), Hurt and Teigen (1977), and Rice and Austin (1988). Recent research by Rice and Austin (1988) indicated that higher levels of morale have occurred at small, private colleges, especially in places where the administration encouraged participative decision making. In this present study, participative decision making involves decision making and its implementation, and suggests that these processes be carried out cooperatively between faculty and administration. According to Guskin and Bassis (1985), other key aspects that should be included in promoting job satisfaction at small college campuses in addition to participative decision making include feelings of security about personal futures and feelings of pride in the institution and in one's colleagues.

Rice and Austin (1988) also suggested that there are additional components that influence job satisfaction besides participative decision making. One of these components is a distinctive organizational culture. This culture becomes evident through a clearly stated mission statement based on notions of tradition, rituals, ceremonies, diversity, and coherence that

permeate all the way from the board of trustees to campus security. These people tell the same stories, by referring to the history and tradition of the institution, especially in terms of what it stands for, what it does, and how it does it. Another distinguishing feature that Rice and Austin found to be of significance is for institutions to have organizational momentum. From their research, they found that for colleges to be "on the move," they need to be taking chances and moving ahead with focus and vigor. Another key feature that has been identified in the research is the collaborative environment with which faculty have identified; faculty prefer to be working with each other and with administrators, not competing with one another. Other significant factors contributing to job satisfaction were reward systems (both intrinsically and extrinsically structured), faculty development programs, and community interaction. Community interaction was deemed essential by faculty in that they like to be involved with community functions and respected by local residents (Rice & Austin, 1988).

Although there are many components that can be related to job satisfaction, the present study was concerned with the relationship between participative decision making and job satisfaction. Participative decision making in this study was analyzed by the Management Communication Style Instrument (MCSI) as developed by Richmond and McCroskey (1979). The MCSI utilized scales on a 19-point continuum ranging from 10 (tell), through 16 (sell), through 22 (consult), to 28 (join). Respondents were asked to

circle a point on the scale that represented the style of management of their immediate supervisor.

In addition to participation, this study analyzed job satisfaction. In this analysis the components that were examined were measured by the Job Description Index (JDI) developed by Smith, Kendall, and Hulin in 1969. This multiple-factor instrument measured job satisfaction through an analysis of: (1) supervision, (2) work, (3) pay, (4) promotion, and (5) co-workers. The JDI measure of job satisfaction has been cited in numerous studies as the most reliable and valid instrument to measure job satisfaction (Asmussen, 1983; Howard et al., 1984; Hurt & Teigen, 1977; Richmond & McCroskey, 1979; V.E. Wheelless et al., 1983).

Although participation in the decision making process can be construed as a substantial component of job satisfaction, faculty rank, age, length of service, and pay have also demonstrated positive relationships with job satisfaction (Adams, 1965; Jaques, 1961; Lawler, 1971). Additional variables that can contribute to job satisfaction include, for example, need for fulfillment, achievement, promotion, jobs that are mentally challenging, actual pay that is close to valued pay, verbal recognition, and higher position in the organization (V.E. Wheelless et al., 1983).

While it is of significance for this present study to examine participation and job satisfaction, this research will also examine faculty rank as it relates to job satisfaction. According to Salancik (1979), faculty rank is one of the

most important factors related to an individual's commitment to an organization. As increased rank brings honors, privileges, responsibility, and salary, it usually coincides with increased commitment and involvement and thus an increased desire to participate in the decisions that will guide the institution into the future.

### Need for the Study

As we look back at improving faculty morale, participative decision making, and faculty rank, it becomes evident that all of these features relate to employee job satisfaction. Although these components have been analyzed individually and with other variables of job satisfaction, very little research was found that related these components within higher education, and particularly to faculty members at small liberal arts colleges in the northwestern United States. This analysis will thus contribute to the body of research literature pertaining to faculty, faculty rank, participative decision making, and employee job satisfaction.

### Statement of Purpose

It was the purpose of this study to examine the relationships of perceived participation in decision making and faculty rank to job satisfaction of faculty members at four-year private institutions in Montana, Oregon, Idaho, Washington, South Dakota, and Nebraska. By comparing and contrasting

the independent variables of faculty rank (assistant professor, associate professor, full professor, and other) and management communication styles (tell, sell, consult, and join) with the five dependent variables of job satisfaction (work, supervision, pay, promotion, and co-workers), this analysis was able to determine how management communication styles and professorial ranks related to job satisfaction. This analysis extends the research of V.E. Wheelless et al. (1983), Salancik (1979), Rice and Austin (1988), and others in reference to job satisfaction, faculty rank, and participative decision making.

## CHAPTER 2

### REVIEW OF RELEVANT LITERATURE

#### Introduction

The following review of literature is intended to give the reader a basic understanding of participative decision making and how this managerial style has developed over the past century. This review also addresses job satisfaction and how it relates to participative decision making and faculty rank. In addition, the review addresses the following: (1) the development of management theory over the past century; (2) models of academic governance (bureaucratic, political, and collegial governance), with special emphasis on the collegial approach; and (3) why faculty job satisfaction is important and how it relates to participative decision making and faculty rank.

#### Development of Management Theory

Management theories discussed in this review include: classical, humanistic, and behavioral (Hoy & Miskel, 1987), also referred to as scientific, person-oriented, and structuralist, respectively (Astin & Scherrei,

1980). These three management theories provide the basis for the theoretical and historical development of the management theory research examined in this study.

### The Classical/Scientific Management Theory

As Drucker (1974), Astin and Scherrei (1980), and others have pointed out, the need for organizational theories emerged toward the end of the nineteenth century when banks and railroads were growing and partnerships and companies were developing. As America entered into the World War I and II era, the Defense Department and industry sought to improve the efficiency and productivity of America's defense. Up until this time in history, only minimal school and management training programs were available (Drucker, 1974). Astin and Scherrei (1980) wrote:

Although the works of the early organizational theorists remained fairly obscure until after World War II, they laid the groundwork for one of the three major schools of management: scientific management. This classical approach contains both a theory of motivation and a theory of organization. (p. 6)

Scientific management theory stressed effectiveness and control and coincided with the concept of machine-like efficiency. In this view, successful operation depended on the function of each part; therefore, an organization's successful operation depended on each worker's task. In addition, this theory espoused narrowly defined tasks, standardized procedures, and strictly ordered supervisory chains of command. Scientific management has

been credited to Fredrich W. Taylor who, in 1912, proposed that to motivate workers, payment should be as closely tied to output as possible.

This scientific approach was supported by other theorists such as Gullick and Urwick (1937), who stated that:

... the resulting organization resembles a 'pyramid,' with workers or subordinants at the base and the top executives at the apex. This type of organization stresses specialization and thus is divided according to task and purpose. (p. 6)

A leading writer who described the scientific style of management was Max Weber (1947). He defined organizations as bureaucracies run by rules and divided internally by functions. These bureaucracies were designed for efficiency which would result in higher productivity.

### The Humanistic/Person-Oriented Management Theory

By the 1950s, as resentment and frustration against the scientific approach became increasingly overt, a more humanistic approach began to emerge in organizational theory. This movement resulted in the humanistic/person-oriented approach in which the worker rather than the organization became the focus of attention (Astin & Scherrei, 1980). Many views concerning the humanistic approach as a theory in the workplace were explained and shared, but, according to Astin and Scherrei, leading scholars of the 50s (i.e., Drucker, Herzberg, and Maslow) were in agreement that "adults need to share the responsibility rather than be cast into childlike,

dependent roles in their work settings" (Astin & Scherrei, 1980, p. 7). Many theorists have discussed the intrinsic and extrinsic motivational factors involved in the work setting but, in effect, the humanistic approach maintained that when an employee's social and psychological needs are satisfied, cooperation and efficiency are enhanced, and this results in higher productivity (Astin & Scherrei, 1980; Hoy & Miskel, 1987).

Douglas McGregor (1960) has explained the "how" and "why" of the scientific and humanistic management styles by focusing on how managers define working personnel in the two models. The "Theory X" manager (scientific) is autocratic (how) because s/he holds the assumption that people do not like work and try to avoid it. Since people do not like work, managers have to control, direct, coerce, and threaten employees to get them to work toward organization goals. In this conception, the rationale is that people prefer to be directed, try to avoid responsibility, and have little ambition. In contrast, the "Theory Y" manager (humanistic) is a team manager. This manager's assumptions are different in that s/he holds that people do not naturally dislike work; work is a natural part of their lives. People are internally motivated to reach objectives to which they are committed. People are committed to goals because they receive personal rewards when they reach their objectives. People both seek and accept responsibility when under favorable conditions. People have the capacity to be innovative and this creativity will help solve organizational problems. Finally, the humanist

theory suggests that people are bright, but because most organizations do not have the ideal working conditions, people do not achieve their maximum potential. The shortcomings of the scientific and humanistic approaches eventually promoted a third, more practical model.

### The Behavioral/Structuralist Management Theory

The third iteration of management theory embodies a combination of the previously discussed scientific and humanistic models. According to Hoy and Miskel (1987), the behavioral science approach utilizes both perspectives and adds propositions from psychology, sociology, political science, and economics to examine work behavior in the formal organization.

Much of the work on the behavioral theory originated with Chester I. Barnard through his book, Functions of an Executive, published in 1938. The structural concepts that he considered relevant were the individual, the cooperative system, the formal organization, the complex formal organization, and the information organization. He also stressed the importance of free will, cooperation, communication, authority, the decision process, and dynamic equilibrium (Hoy & Miskel, 1987).

### Models of Governance

As the three management theories have been adapted and transferred to higher education, researchers (Astin & Scherrei, 1980; Baldrige et al., 1977; Cameron, 1985; Lindquist, 1978; and others) have pointed out that

colleges and universities can differ greatly from corporations, factories, and government offices. The goals and missions of institutions of higher learning can be diffuse and ambiguous compared to those in most business professions. However, there are three models of governance in higher education that do lend themselves to comparison and contrast with the scientific, humanistic, and behavioral approaches previously discussed. These three models are the bureaucratic, political, and collegial models of academic governance. Estela M. Bensimon (1989) provided a concise and articulate analysis of these three governance models.

### The Bureaucratic Model

The bureaucratic model of governance places emphasis on establishing clear channels of authority. The chain of command is from the top down, much like a pyramid structure. By establishing that subordinates know their place in the organizational structure and by clearly delineating their particular job descriptions, the proponents of this model pride themselves on its productivity and efficiency. The decisions that are made in this model are initiated at the upper administrative levels. These decisions are then acted upon by the appropriate personnel at the lower levels of the governance system. Baldrige (1971), Bensimon (1989), and Weber (1947) each have written extensively about this style of governance.

### The Political Model

Several researchers (Baldrige, 1971; Bensimon, 1989; Walker, 1979) have produced works discussing the political model of governance, which places its emphasis on political power. To be a part of the decision making process, one must become active in the political process of any decision that is of interest. This power can come either formally or informally. As members decide to be a part of a particular decision, they align their support either for or against the decision that is being acted upon. The issue of "power" in this model is constantly changing. As Walker (1979) suggested, diplomacy and persuasion should be the primary administrative tools of presidents; well defined goals can still be achieved while demonstrating flexibility and openness in communication. This style of governance allows for conflict that the organization tries to utilize in a positive way to enhance the decision making process. By exchanging views, information, communication, and power, the political model is truly a political process in action.

### The Collegial Model

In the collegial model of governance, the human resources and needs of the people come first. According to Millett (1962), this framework pictures colleges and universities as communities of scholars who, by virtue of their professional expertise and a shared value system, control organizational goals. This model stresses the importance of collaboration between faculty and administration to realize the interests of the institution as a whole. It is

through this collaboration that each member works not only to achieve their own potential, but to assist one another in reaching the optimal aggregate potential of all members for the good of the institution (Bensimon, 1989).

An additional attribute of the collegial model of leadership is strong leadership/flat hierarchy. From the research of Rice and Austin (1988), it can be concluded that leadership can be forceful while simultaneously being non-hierarchical. Another contributor to this theme was Rosabeth Kanter (1983), who stated that power begets power. These researchers contend that those in positions of influence give power away and share authority. By following these dictates, a leader empowers others, thereby enhancing the effectiveness of the organization as a whole.

Another key component of the collegial approach is the willingness to share information. As trusting and respectful members form a collegium, the opportunity to communicate and enhance each other's viewpoints increases. As faculty members and administrators share dialogue, a family atmosphere begins to build and permeate throughout the institution (Rice & Austin, 1988).

An additional contributor to the research on collegial governance was Moomaw (1984). He suggested incorporating five principles into academic leadership: (1) articulating mission and goals, (2) developing a leadership team, (3) encouraging broad involvement and new ideas, (4) evaluating, and (5) using a reward system. Moomaw went on to propose that the academic

leader needs to balance these components in such a way as to provide guidance while also allowing for the channels of democracy.

Guskin and Bassis (1985) likewise suggested that the collegial approach is one of the most effective modern leadership styles. Their view of this approach utilized the concept of the team leader. The leader attempts to create an interpersonal environment among senior administrators and also throughout the campus. The approach is more concerned with the process by which decisions are made than with the decisions themselves. In this process, creativity is enhanced and promoted, and collaboration is the key component that links faculty and administrators into a common cause. Thus, in this type of leadership, the faculty develop a sense of ownership. With the sense of ownership, faculty become more secure, proud, and involved in what they believe to be their governance system.

#### Relationship of Models of Governance to the MCSI Survey Tool

In reviewing the three models of governance (bureaucratic, political, and collegial), it seems appropriate to suggest the relationship of these models to the survey instrument used for this analysis. As defined in the purpose of the study, this analysis categorized participative decision making on a continuum scale from 10 (tell) to 28 (join). In relating the Management Communication Style Instrument (MCSI) to the review of academic governance, *tell* closely relates to the bureaucratic model, *sell* relates to

the political model, and *consult* and *join* correspond with the collegial model.

Relationship of Faculty Job Satisfaction  
to Participative Decision Making  
and Faculty Rank

Historically, job satisfaction has been of great interest to researchers, individuals, organizations, and businesses. Researchers have identified many variables associated with job satisfaction, such as co-workers, working conditions, attitudes toward work, pay, and promotion. The literature also indicates that many perspectives of job satisfaction have been developed into theoretical approaches, including need fulfillment (Schaffer, 1953), discrepancy theory (Locke, 1969), equity theory (Adams, 1963), and Herzberg's two-factor theory (Herzberg et al., 1959). Although job satisfaction can be examined and explained through an array of theories, "the most widely accepted conceptualization of job satisfaction is that of Smith, Kendall, and Hulin (1969) who identify dimensions of satisfaction with supervisor, pay, work, co-workers, and promotion" (V.E. Wheelless et al., 1983, p. 146). Job satisfaction can be portrayed to have extensive meanings and will continue to be further analyzed, but many researchers have concluded that it can best be defined as "one's response to various facets of the work environment" (V.E. Wheelless et al., 1983, p. 146).

Job satisfaction has been linked to mental health, work environment, creativity, productivity, communication with supervisors, supervisor's receptivity to information, participative decision making, and many other related areas. This study will concentrate on how job satisfaction relates to participative decision making and faculty rank. Participation in decision making has received considerable attention as it relates to employee job satisfaction. Studies by Falcione (1974), Harrison (1981), Lewin et al. (1939), and Tannenbaum and Schmidt (1958) have shown that there is a positive relationship between participation and job satisfaction. Most of these studies have been correlational in nature, often examining additional variables that relate to job satisfaction as well.

Richmond and McCroskey (1979) extended the effects of participative decision making on job satisfaction by examining the relationship between communication behavior of the supervisor to participation. They concluded from their study that a management style that consults with employees is more likely to exhibit higher employee satisfaction than a style that does not incorporate participative decision-making. This research, supported by other studies, indicates that ownership in the decision making process brings about a sense of fulfillment and that this increased fulfillment coincides with increased commitment, responsibility, risk taking, and creativity.

As participative decision making is closely related to job satisfaction and can increase commitment and responsibility, faculty rank has also been

linked to an individual's commitment to an organization (Salancik, 1979). Increased rank for faculty is usually associated with increased privileges, salary, and responsibility. As this responsibility develops, so too does the responsibility and the sense of ownership in the decisions that will be made in reference to the institution. In a study supported by the Stanford Project on Academic Governance (Baldrige et al., 1978), rank, age, and longevity were all seen as pertinent components that related to commitment to the organization. This study concluded that faculty status was the leading component of institutional identification. These findings suggested that faculty rank had a direct correlation with institutional identification and thus commitment, responsibility, and ownership. These components also coincide with participative decision making as necessary ingredients of job satisfaction.

### Summary

The review of literature clearly suggests that there is a need to involve faculty in the decision making processes on college and university campuses. The literature also suggests that participative decision making is not only appropriate for liberal arts institutions, but that it can relate to increased job satisfaction. Numerous studies and large amounts of research have been conducted that affirm job satisfaction is an integral part of any work environment. Although job satisfaction has been linked to many

components of the work environment, this analysis will examine job satisfaction as a contributing component of the research in higher education administration.

## CHAPTER 3

### METHODOLOGY

#### Introduction

This investigation analyzed how management communication style and faculty rank related to faculty job satisfaction. This chapter describes the sample, methods of data gathering, selected respondents, survey instruments used, reliability and validity of the survey instruments, independent and dependent variables, how the data were recorded, statistical hypotheses tested, analytical devices used to test the hypotheses, levels of significance, precautions for authenticity and accuracy, and limitations and delimitations of this study.

#### Population and Data Gathering Procedures

This study included independent, liberal arts institutions in Montana, Idaho, South Dakota, Oregon, Nebraska, and Washington. The institutions included in the study were all private, four-year colleges. According to Rice and Austin (1988), these small, private, four-year institutions can be categorized as being similar in size, mission, clientele, and organizational

structure. The institutions in this study had faculties ranging in size from a low of 32 to a high of 130. In identifying participating institutions, it should be noted that 14 institutions (of the defined category) declined to be a part of this study. In the original proposal of this study, South Dakota and Nebraska were not listed as states that would be included in the Northwest. With a significant number of declines, it was necessary to include additional similar institutions in other states to obtain a larger sample. Ten institutions did agree to be a part of this study. The Academic Vice-President, Dean, or Provost was contacted at each participating institution either by telephone, letter, or both, and was given an explanation of the purpose of the study. Following this initial contact, copies of the survey instruments were sent. These were returned to the Department of Education at Montana State University. The survey instruments and instructional letter are found in Appendices A, B, and C.

The institutions participating in this study are referred to only in aggregate. Confidentiality was assured to each participating institution. The following 10 institutions participated in this study: (1) Augustana College, Sioux Falls, South Dakota; (2) Carroll College, Helena, Montana; (3) College of Great Falls, Great Falls, Montana; (4) College of Idaho, Caldwell, Idaho; (5) Concordia College, Portland, Oregon; (6) George Fox College, Newberg, Oregon; (7) Hastings College, Hastings, Nebraska; (8) Mount Marty College, Yankton, South Dakota; (9) National College, Rapid City, South Dakota; and (10) Saint Martin's College, Lacey, Washington.

Listed below is pertinent information relative to selected survey respondents and mailing of survey instruments:

- (1) Selected respondents included all faculty members from the previously mentioned institutions, each of whom received a survey instrument. The total sample for this analysis was 574. There were 246 respondents; of the 246 returned responses, 236 were usable. Therefore, the actual usable return rate was 41%.
- (2) Surveys were sent to all half-time/full-time faculty members at the 10 participating institutions. The number of faculty members at each institution varied from 32 to 130.
- (3) There were several alternatives suggested in order to gather the needed responses for this analysis. The alternative that was incorporated in this study was to include the number of institutions necessary to reach an acceptable total population (574) and still remain in the desired geographical region (Northwest), while obtaining an acceptable return rate to control for the error rate. The response rate that was obtained in this analysis was 41%. Second mailings were done to reach this overall return rate.

#### Survey Instruments Used

The information needed to perform this analysis was gathered through two survey instruments. The first was the Management Communication

Style Instrument (MCSI). Data from this instrument were recorded by analyzing the responses from a 19-point scale (see Appendix A). This scale ranges from 10 (tell) to 28 (join). The MCSI was developed by Richmond and McCroskey (1979). There were three responses required on the MCSI: (1) "Who is your immediate supervisor?"; (2) "What management communication style does your immediate supervisor use?"; and (3) "What management communication style does your central administration use?" These responses were recorded on a computerized general-purpose answer sheet (see Appendix D). The responses to question (3) were not utilized in this analysis; these data were gathered for future studies and research (see recommendations, Chapter 5).

The second survey instrument, the Job Description Index (JDI), is found in Appendix B. This instrument utilized 72 responses in five areas of job satisfaction. The JDI was developed by Smith, Kendall, and Hulin in 1969. Respondents were asked to answer with *yes*, *no*, or a question mark (?) if uncertain about a response.

#### Recording of Data for Computer Analysis and Weighting

Scoring weights used in recording the data for the JDI are shown in Table 1. The weighting of the responses was performed in a separate data file. This file simply took the data file and assigned the appropriate weight to each selected response.

Table 1. Traditional and revised weights for direct scoring of JDI items.

Response	Scoring Weight
Yes to a positive item	3
No to a negative item	3
? to any item	1
Yes to a negative item	0
No to a positive item	0

Source: Smith et al. (1969, p. 79).

### Reliability and Validity of Survey Instruments

The two survey instruments utilized in this analysis were the Management Communication Style Instrument designed by Richmond and McCroskey in 1979, and the Job Descriptive Index that was developed by Smith, Kendall, and Hulin in 1969.

The MCSI examined the communication style that was used by the respondent's immediate supervisor. This instrument has exhibited a test-retest reliability of .85 when tested by Richmond and McCroskey (1979). In their first analysis, the instrument was utilized in a study involving 183 public school teachers. In a study published in 1982 by Richmond et al., the MCSI had a test-retest reliability of .87. This study included 250 public school teachers.

The MCSI has been used in additional studies by Richmond et al. (1980), V.E. Wheelless et al. (1983), and L.R. Wheelless et al. (1984). The instrument was utilized to examine the communication styles of four managers of organizations and classified employees at an eastern university in these studies. In these studies, test-retest reliabilities were not feasible. All of the articles referred to the previous test-retest scores of .85 and .87. The MCSI has exhibited high concurrent validity through a variety of analysis techniques employed by Richmond and McCroskey (1979). They stated:

Through a series of analyses involving single-factor, two-factor, and multiple-factor approaches, the MCSI has been shown to be significantly correlated with the supervision, work, and promotion components of other instruments of measure involving employee satisfaction. (p. 367)

The second survey instrument utilized in this analysis was the JDI, developed by Smith et al., (1969). This multiple-factor instrument examines employee satisfaction. The five dimensions of satisfaction include: supervision, work, pay, promotion, and co-workers. The JDI has been utilized in numerous studies where job satisfaction has been examined (Falcione et al., 1977; Hurt & Teigen, 1977; Richmond & McCroskey, 1979; Smith et al., 1969; V.E. Wheelless et al., 1983; L.R. Wheelless et al., 1984). The JDI has exhibited reliabilities ranging from .73 to .92 on the five dimensions of job satisfaction. Respondents in these analyses have included public school teachers, organizational managers, classified employees from a university,

supervisors from manufacturing organizations, service employees, bank managers, and others.

Smith et al. (1969) put the JDI through extensive analysis to ensure its reliability and validity. In general, their results have held up across a wide spectrum of groups and subjects in relation to measuring satisfaction. The JDI has exhibited consistent discriminant and convergent validity. Validity was assessed by a modification of the Campbell-Fiske model (Campbell & Fiske, 1959) for establishing convergent and discriminant validity using cluster analysis and principal component analysis. Smith et al. (1969) utilized four studies to validate the JDI. The first study (Study A) consisted of 166 respondents in the first phase, most of whom were Cornell University undergraduate students, and the second phase used 317 undergraduates, some of whom were respondents in the first phase. Through varimax rotation of the principal component factors, 71% of the total variance of the 24 variables was accounted for.

The second study (Study B) by Smith et al. (1969) was designed to test the generality of the results from Study A for a somewhat different set of measures and for a working population. This study involved 80 randomly selected employees of a farmers' cooperative. Two of the rating methods that were utilized in the first study were included in this study along with two additional rating methods. The nine factors in this study accounted for 74% of the total variance in the 31 measures used.

Study C, the third study, was a field test of the final version of the JDI in an electronics industry. Smith et al. (1969) stated:

On the basis of the evidence from Studies A and B of the soundness and validity of the direct scoring method of the JDI and effectiveness of item selection, each scale has been shortened to its final version. The final goal of the present series of studies was to develop measures of satisfaction for use in subsequent studies. (p. 55)

Study C included 81 male employees from two plants of a large electronics manufacturer. The JDI scores were intercorrelated with the job aspects of work, pay, promotion, supervision, and co-workers. The matrix was again factored by the principal component method with unities in the main diagonal, and these five factors were also rotated with the varimax criterion. These five factors accounted for 75% of the total variance.

The fourth and final study (Study D) utilized a factor analysis of JDI items and included 80 employees from a large bank (Smith et al., 1969). This study showed that the discriminability obtained for the several areas applies to total scores cumulated for each area, but that adequate discriminability exists at the level of specific items which make up the content of total scales. A centroid factor analysis of 72 items pooled from all five scales was performed by Maas (James Maas). The five factors were rotated with the quartimax criterion. The results from this study showed that generally distinct factors emerge for each of the five job areas. According to Smith et al. (1969, p. 67), "Many of the items intended to measure satisfaction

with a particular area appear with their highest loadings for that area (discriminant validity)."

In order to fully understand the extensive testing and validation of this instrument, reference should be made to Smith et al. (1969), pages 37-68. Numerous tables and documentation are provided of the methods utilized, including varimax rotation of principal components. Tables are also provided that demonstrate correlations between the JDI and various measures and ratings. Quartimax rotation tables are also exhibited. The five areas of job satisfaction have been factor loaded and analyzed and have exhibited their discriminant and convergent validity.

#### Independent and Dependent Variables

The independent variables in this analysis were faculty rank (assistant professor, associate professor, full professor, and other) and the management communication styles of tell, sell, consult, and join. The dependent variables were five scales of job satisfaction as defined and measured by Smith et al. (1969): work, supervision, pay, promotion, and co-workers.

#### Methods for Organizing the Data

All participants were provided with a General Purpose-NCS Answer Sheet (Appendix D) to record their survey responses. By utilizing these computerized response sheets, the data were readily accessible to be

retrieved into data files which were used to organize and prepare the data for statistical analysis. An instructional letter is presented in Appendix C. By providing these instructions, this analysis was able to record the following data: the respondent's age, years at that particular institution, professorial rank, and tenure status. Responses for the JDI were recorded in spaces 1-72; responses for the MCSI were recorded in spaces 109-148.

### Statistical Hypotheses

In order to determine whether a relationship exists between job satisfaction, professorial rank, and management communication style, 15 null hypotheses were developed. Hypotheses 2, 3, 5, 6, 8, 9, 11, 13, 14, and 15 were tested by one-way analysis of variance, and Hypotheses 1, 4, 7, 10, and 13 were tested by two-way analysis of variance. A multiple classification analysis was also performed. The multiple classification analysis examined the independent variables of faculty rank and management communication style simultaneously with each subcomponent of job satisfaction to determine how much of the variance was being accounted for in each sub-dependent category. Statistical analysis was performed by computer utilizing the Statistical Package for the Social Sciences (SPSS).

Null Hypotheses 1 through 15 are listed below:

- (1) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/work.

- (2) There is no difference between faculty ranks on the dependent variable of job satisfaction/work.
- (3) There is no difference between management communication styles on the dependent variable of job satisfaction/work.
- (4) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/supervision.
- (5) There is no difference between faculty ranks on the dependent variable of job satisfaction/supervision.
- (6) There is no difference between management communication styles on the dependent variable of job satisfaction/supervision.
- (7) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/pay.
- (8) There is no difference between faculty ranks on the dependent variable of job satisfaction/pay.
- (9) There is no difference between management communication styles on the dependent variable of job satisfaction/pay.
- (10) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/promotion.

- (11) There is no difference between faculty ranks on the dependent variable of job satisfaction/promotion.
- (12) There is no difference between management communication styles on the dependent variable of job satisfaction/promotion.
- (13) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/co-workers.
- (14) There is no difference between faculty ranks on the dependent variable of job satisfaction/co-workers.
- (15) There is no difference between management communication styles on the dependent variable of job satisfaction/co-workers.

#### Analysis of Data

Hypotheses 1, 4, 7, 10, and 13 were tested through a series of two-way analyses of variance. The two-way analysis was conducted to determine if there was interaction between the independent variables of rank and management communication style on the dependent variables of job satisfaction. Hypotheses 2, 3, 5, 6, 8, 9, 11, 12, 14, and 15 were tested through a series of one-way analyses of variance to determine if there was a difference between the means of the four factors of each independent variable. The Student Newman Keuls post hoc analysis was used in conjunction with the one-way analysis of variance to examine the differences between the

means of each independent variable. A multiple classification analysis was also utilized to examine the independent variables of faculty rank and management communication style simultaneously with each subcomponent of job satisfaction and to determine how much of the variance was being accounted for in each sub-dependent category.

#### Level of Significance

The null hypotheses of this study were tested at the .05 level of significance. Kerlinger (1973, p. 70) suggested that the .05 level of significance is appropriate for most social scientific research. The effects of setting a significance level determine the consequences of committing a Type I or Type II error. A Type I error occurs when a true null hypothesis is falsely rejected. A Type II error occurs when a null hypothesis is falsely retained. In this study, a Type I error might result in time and money being spent on policy to promote faculty and administration working together when that is not what is needed to promote job satisfaction. In addition, if a Type II error was committed, the information needed to enhance an effective faculty and administrative work environment might not surface and thus no effective change would be discussed. As both types of errors were analyzed, it was determined that either would be equally detrimental to this study, and thus the rationale and choice of the .05 level of significance.

Precautions Taken for Authenticity and  
Accuracy of Data

All 236 of the data sheets used for this analysis were inspected individually as they were retransferred to usable General Purpose-NCS Answer Sheets. (It should be noted that some questions were not answered, and thus there are not 236 responses for all of the questions.) Ten responses were omitted because they were incomplete. As the data were organized into data files, random checks were performed to ensure that the data were being transferred correctly, were being weighted correctly, and were being counted correctly through a frequency file. This process became very time-consuming as the computer was unable to determine if there was a response in some cases; thus the researcher had to retrieve the original data sheet and hand-enter the data. However, this process did complement the authenticity and proper recording of the data.

The statistical portion of this analysis was calculated via computer using the Statistical Package for the Social Sciences (SPSS). The data were entered into the SPSS computer system from the previously mentioned data files. As stated, the data were randomly checked numerous times by the researcher during this analysis to ensure that they were being recorded, weighted, and counted correctly.

Limitations and Delimitations  
of the Study

- (1) This study was limited to private, four-year liberal arts institutions in Montana, Idaho, Washington, South Dakota, Oregon, and Nebraska.
- (2) This study was limited to data that were gathered through the use of two survey instruments.
- (3) The results of this study were delimited to the Management Communication Style Inventory that ranks perceived participatory decision making from 10 (tell) to 28 (join).
- (4) The data from this study were delimited to the views of the faculty members and to their particular responses concerning rank, perceived participation, and job satisfaction as indicated on the Job Description Index responses.
- (5) The study was conducted in the spring of 1990.

## CHAPTER 4

## ANALYSIS OF DATA

Introduction

This investigation analyzed how management participation style and faculty rank related to faculty job satisfaction as it was proposed in the purpose of this study. The independent variables in this analysis were faculty rank (assistant professor, associate professor, full professor, and other). The management communication styles consisted of tell, sell, consult, and join. The dependent variables were five scales of job satisfaction as defined and measured by Smith et al. (1969): work, supervision, pay, promotion, and co-workers.

The statistical portion of this analysis was calculated by computer using the Statistical Package for the Social Sciences (SPSS). Data were entered into the SPSS computer system from the previously mentioned data files. The level of statistical significance used through this analysis was .05.

This chapter includes the preceding introduction along with the following: the study population, statistical hypotheses, one-way analysis of variance

tables, two-way analysis of variance tables, the multiple classification analysis table, and the hypotheses summary table.

### Study Population

The selected respondents for this study included faculty members from 10 institutions. Table 2 shows the sample number of faculty from each institution along with the number of respective returned responses.

Table 2. Number of faculty surveyed and number of returned responses by participating institution.

Institution	Sample	Return
Augustana College, Sioux Falls, SD	130	61
Carroll College, Helena, MT	74	29
College of Great Falls, Great Falls, MT	36	10
College of Idaho, Caldwell, ID	47	22
Concordia College, Portland, OR	32	14
George Fox College, Newberg, OR	50	24
Hastings College, Hastings, NE	66	31
Mount Marty College, Yankton, SD	50	17
National College, Rapid City, SD	39	18
Saint Martin's College, Lacey, WA	50	21

All of the faculty members who were of half-time status or more at these participating institutions received a survey instrument. The total sample for this analysis was 574. There were 246 respondents and 236 usable responses, for a return rate of 41%.

### Statistical Analysis

Statistical Hypotheses 1, 4, 7, 10, and 13 were tested for interactions and main effects by a two-way analysis of variance statistical procedure. Hypotheses 2, 3, 5, 6, 8, 9, 11, 12, 14, and 15 were tested through a one-way analysis of variance, and the Student Newman Keuls post hoc test was applied to determine if there was a significant difference between the means of the independent variables. The significance of all analyses of variance was determined by an alpha level of .05. A multiple classification analysis was also performed. All of the statistical calculations were performed by using the Statistical Package of Social Sciences (SPSS) computer program.

The 15 hypotheses are comprised of five clustered sets of three hypotheses each. Individual clusters are linked according to one of the five dependent variables of job satisfaction: work (Hypotheses 1-3), supervision (Hypotheses 4-6), pay (Hypotheses 7-9), promotion (Hypotheses 10-12), and co-workers (Hypotheses 13-15).

Four tables have been developed to present statistical data for each cluster set of hypotheses. The first is the table of means for the dependent variable by faculty rank and management communication style; the second is the two-way ANOVA table for the dependent variable by faculty rank and management communication style; presented third is the one-way ANOVA table for the dependent variable and faculty rank; and last is the one-way

ANOVA table for the dependent variable and management communication style.

Null Hypotheses 1, 2, and 3

- (1) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/work.
- (2) There is no difference between faculty ranks on the dependent variable of job satisfaction/work.
- (3) There is no difference between management communication styles on the dependent variable of job satisfaction/work.

Analysis of variance for Hypothesis 1 is summarized in Table 4, with the graphic display of cell means presented in Table 3; 236 cases were processed.

Table 3. Table of means for job satisfaction/work by faculty rank and management communication style.

Faculty Rank	MANAGEMENT COMMUNICATION STYLE							
	Tell		Sell		Consult		Join	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Assistant	36.75	16	39.13	8	39.08	38	42.72	25
Associate	35.57	7	37.56	9	40.83	23	36.16	19
Full	32.00	3	43.00	7	40.59	22	44.06	16
Other	33.75	4	38.57	7	40.29	17	43.11	9

Table 4. Two-way ANOVA table for job satisfaction/work by faculty rank and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F	Signif. of F
Main Effects	957.421	6	159.570	2.597	.019
Faculty rank	269.550	3	89.850	1.462	.226
Mgmt communic style	650.611	3	216.870	3.529	.016
2-way Interactions	692.343	9	76.927	1.252	.265
Rank x MCS	692.343	9	76.927	1.252	.265
Explained	1649.764	15	109.984	1.790	.038
Residual	13150.584	214	61.451		
Total	14800.348	229	64.630		

The p-value of Hypothesis 1 was .265. This indicated that no two-way interaction existed between faculty rank and management communication style with regard to job satisfaction/work.

Table 5 displays the one-way analysis of variance between the dependent variable of job satisfaction/work and the independent variable of faculty rank. No two groups were found significantly different when examining job satisfaction/work with faculty rank when utilizing the Student Newman Keuls post hoc procedure.

Table 6 presents the one-way analysis of variance between job satisfaction/work and management communication style. Results of the Student Newman Keuls post hoc procedure indicated the following: group 3 (consult) was statistically greater than group 1 (tell), and group 4 (join) was also statistically greater than group 1 (tell) when examining job satisfaction/work and management communication style. No other groups differed significantly.

Table 5. One-way ANOVA table for job satisfaction/work and faculty rank.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	306.6748	3	102.2249	1.6005	.1901
Within groups	14498.7624	227	63.8712		
Total	14805.4372	230			
Faculty Rank by Group					
Faculty Rank by Group	Count	Mean	Std. Dev.		
1. Assistant Professor	88	39.7273	7.8253		
2. Associate Professor	58	38.1552	9.0589		
3. Full Professor	48	41.5625	7.3337		
4. Other	37	39.9459	7.3897		
Total	231	39.7489	8.0232		

Table 6. One-way ANOVA table for job satisfaction/work and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	686.3358	3	228.7786	3.6795	.0129
Within groups	14114.0798	227	62.1766		
Total	14800.4156	230			
Management Communication Style by Group					
Management Communication Style by Group	Count	Mean	Std. Dev.		
1. Tell	30	35.6000	7.4167		
2. Sell	31	39.4194	7.4107		
3. Consult	100	40.0200	7.9391		
4. Join	70	41.2571	8.1928		
Total	231	39.7403	8.0218		

Based on these findings, Null Hypotheses 1 and 2 were retained and Hypothesis 3 was rejected. There was no significant interaction between faculty rank and management communication style in relation to job satisfaction/work. In addition, there was no difference between faculty ranks with job satisfaction/work, but there was a significant difference found between management communication styles in relation to job satisfaction/work.

#### Null Hypotheses 4, 5, and 6

- (4) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/supervision.
- (5) There is no difference between faculty ranks on the dependent variable of job satisfaction/supervision.
- (6) There is no difference between management communication styles on the dependent variable of job satisfaction/supervision.

Analysis of variance for Hypothesis 4 is summarized in Table 8, with the graphic display of cell means presented in Table 7.

The p-value for Hypothesis 4 was .625. This indicates that no two-way interaction existed between faculty rank and management communication style with regard to job satisfaction/supervision.

Table 9 displays the one-way analysis of variance between the dependent variable of job satisfaction/supervision and the independent variable of faculty

rank. No two groups were found significantly different when examining job satisfaction/supervision with faculty rank.

Table 10 presents a one-way analysis of variance between job satisfaction/supervision and management communication style.

Table 7. Table of means for job satisfaction/supervision by faculty rank and management communication style.

Faculty Rank	MANAGEMENT COMMUNICATION STYLE							
	Tell		Sell		Consult		Join	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Assistant	23.27	15	39.63	8	43.95	38	46.33	24
Associate	29.00	7	39.00	9	44.65	23	44.05	20
Full	25.67	3	35.86	7	42.52	23	47.53	17
Other	29.50	4	31.57	7	44.12	17	46.00	9

Table 8. Two-way ANOVA table for job satisfaction/supervision by faculty rank and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F	Signif. of F
Main Effects	9794.132	6	1632.355	16.977	.000
Faculty rank	18.506	3	6.169	.064	.979
Mgmt communic style	9673.045	3	3224.348	33.535	.000
2-way Interactions	684.112	9	76.012	.791	.625
Rank x MCS	684.112	9	76.012	.791	.625
Explained	10478.243	15	698.550	7.265	.000
Residual	20672.181	215	96.150		
Total	31150.424	230	135.437		

Table 9. One-way ANOVA table for job satisfaction/supervision and faculty rank.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	122.3082	3	40.7694	.2996	.8257
Within groups	31029.6530	228	136.0950		
Total	31151.9612	231			
Faculty Rank by Group					
Faculty Rank by Group	Count	Mean	Std. Dev.		
1. Assistant Professor	86	40.5581	12.8499		
2. Associate Professor	59	41.7288	10.2635		
3. Full Professor	50	42.2800	11.5388		
4. Other	37	40.6216	11.0059		
Total	232	41.2371	11.6128		

Table 10. One-way ANOVA table for job satisfaction/supervision and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	9845.0687	3	3281.6896	34.9635	.0000
Within groups	21400.1554	228	93.8603		
Total	31245.2241	231			
Management Communication Style by Group					
Management Communication Style by Group	Count	Mean	Std. Dev.		
1. Tell	29	25.7586	12.3307		
2. Sell	31	36.7742	11.0686		
3. Consult	101	43.8119	10.1071		
4. Join	71	46.0000	6.8159		
Total	232	41.2845	11.6302		

Results of the Student Newman Keuls post hoc procedure indicated the following: group 2 (sell) was statistically greater than group 1 (tell), group 3 (consult) was statistically greater than group 1 (tell), and group 4 (join) was statistically greater than group 1 (tell). Results also indicated that group 3 (consult) and group 4 (join) were statistically greater than group 2 (sell), when examining job satisfaction/supervision and management communication style.

Based on these findings, Null Hypotheses 4 and 5 were retained and Hypothesis 6 was rejected. There was no significant interaction between faculty rank and management communication style in relation to job satisfaction/supervision. In addition, there was no difference between faculty ranks with job satisfaction/supervision, but there was a significant difference found between management communication styles in relation to job satisfaction/supervision.

#### Null Hypotheses 7, 8, and 9

- (7) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/pay.
- (8) There is no difference between faculty ranks on the dependent variable of job satisfaction/pay.
- (9) There is no difference between management communication styles on the dependent variable of job satisfaction/pay.

Analysis of variance for Hypothesis 7 is summarized in Table 12, with the graphic display of cell means presented in Table 11. The number of cases processed was 236.

Table 11. Table of means for job satisfaction/pay by faculty rank and management communication style.

Faculty Rank	MANAGEMENT COMMUNICATION STYLE							
	Tell		Sell		Consult		Join	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Assistant	5.81	16	5.00	8	6.39	38	9.44	25
Associate	4.00	7	3.33	9	7.26	23	8.37	19
Full	6.67	3	8.50	6	11.54	24	12.88	17
Other	3.75	4	6.71	7	4.35	17	11.56	9

Table 12. Two-way ANOVA table for job satisfaction/pay by faculty rank and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F	Signif. of F
Main Effects	1483.755	6	247.292	7.485	.000
Faculty rank	685.887	3	228.629	6.920	.000
Mgmt communic style	683.147	3	227.716	6.892	.000
2-way Interactions	272.023	9	30.225	.915	.513
Rank x MCS	272.023	9	30.225	.915	.513
Explained	1755.778	15	117.052	3.543	.000
Residual	7136.705	216	33.040		
Total	8892.483	231	38.496		

The p-value for Hypothesis 7 was .513. This indicated that no two-way interaction existed between faculty rank and management communication style with regard to job satisfaction/pay.

Table 13 displays the one-way analysis of variance between the dependent variable of job satisfaction/pay and the independent variable of faculty rank. Results of the Student Newman Keuls post hoc procedure indicated the following: group 3 (full professor) was statistically greater than group 4 (other), group 1 (assistant professor), and group 2 (associate professor) when examining job satisfaction/pay with faculty rank. No other groups differed significantly.

Table 13. One-way ANOVA table for job satisfaction/pay and faculty rank.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	804.0930	3	268.0310	7.5814	.0001
Within groups	8095.9671	229	35.3536		
Total	8900.0601	232			
Faculty Rank by Group					
Faculty Rank by Group	Count	Mean	Std. Dev.		
1. Assistant Professor	88	7.0114	6.0865		
2. Associate Professor	58	6.6207	5.2843		
3. Full Professor	50	11.2800	6.2533		
4. Other	37	6.4865	6.1582		
Total	233	7.7468	6.1937		

Table 14 presents a one-way analysis of variance between job satisfaction/pay and management communication style. Results of the Student Newman Keuls post hoc procedure indicated the following: group 4 (join) was statistically greater than group 1 (tell), group 2 (sell), and group 3 (consult) when examining job satisfaction/pay and management communication style. No other groups differed significantly.

Table 14. One-way ANOVA table for job satisfaction/pay and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	792.9033	3	264.3011	7.4726	.0001
Within groups	8099.6375	229	35.3696		
Total	8892.5408	232			
Management Communication Style by Group					
Management Communication Style by Group	Count	Mean	Std. Dev.		
1. Tell	30	5.1000	4.9085		
2. Sell	30	5.6000	5.2365		
3. Consult	102	7.4608	6.4818		
4. Join	71	10.2254	5.8093		
Total	233	7.7597	6.1911		

Based on the findings, Null Hypothesis 7 was retained and Hypotheses 8 and 9 were rejected. There was no significant interaction between faculty rank and management communication style on the dependent variable of job satisfaction/pay. However, it was determined that there was a significant

difference found between faculty ranks and between management communication styles in relation to job satisfaction/pay.

Null Hypotheses 10, 11, and 12

- (10) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/promotion.
- (11) There is no difference between faculty ranks on the dependent variable of job satisfaction/promotion.
- (12) There is no difference between management communication styles on the dependent variable of job satisfaction/promotion.

Analysis of variance for Hypothesis 10 is summarized in Table 16, with the graphic display of cell means presented in Table 15. The p-value for Hypothesis 10 was .207. This indicated that no two-way interactions existed between faculty rank and management communication style with regard to job satisfaction/promotion.

Table 17 presents the one-way analysis of variance for the dependent variable of job satisfaction/promotion and the independent variable of faculty rank. Results of the Student Newman Keuls post hoc procedure indicated the following: group 3 (full professor) was statistically greater than group 4 (other), group 1 (assistant professor), and group 2 (associate professor) when examining job satisfaction/promotion and faculty rank.

Table 18 presents the one-way analysis of variance for job satisfaction/promotion and management communication style. No two groups were found to be significantly different when examining job satisfaction/promotion and management communication style.

Table 15. Table of means for job satisfaction/promotion by faculty rank and management communication style.

Faculty Rank	MANAGEMENT COMMUNICATION STYLE							
	Tell		Sell		Consult		Join	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Assistant	11.40	15	12.75	8	12.05	38	11.24	25
Associate	8.00	7	8.11	9	15.30	23	13.11	19
Full	3.00	3	17.57	7	17.59	22	16.18	17
Other	7.75	4	7.00	7	9.65	17	10.00	9

Table 16. Two-way ANOVA table for job satisfaction/promotion by faculty rank and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F	Signif. of F
Main Effects	1576.868	6	262.811	4.357	.000
Faculty rank	1080.649	3	360.216	5.972	.001
Mgmt communic style	411.826	3	137.275	2.276	.081
2-way Interactions	739.285	9	82.143	1.362	.207
Rank x MCS	739.285	9	82.143	1.362	.207
Explained	2316.153	15	154.410	2.560	.002
Residual	12907.238	214	60.314		
Total	15223.391	229	66.478		

Table 17. One-way ANOVA table for job satisfaction/promotion and faculty rank.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	1173.9465	3	391.3155	6.3038	.0004
Within groups	14091.2310	227	62.0759		
Total	15265.1775	230			
Faculty Rank by Group					
Faculty Rank by Group	Count	Mean	Std. Dev.		
1. Assistant Professor	87	11.7011	8.0941		
2. Associate Professor	58	12.5862	8.2505		
3. Full Professor	49	16.2041	8.1726		
4. Other	37	9.0270	6.1711		
Total	231	12.4502	8.1468		

Table 18. One-way ANOVA table for job satisfaction/promotion and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	492.1370	3	164.0457	2.5183	.0589
Within groups	14786.9366	227	65.1407		
Total	15279.0736	230			
Management Communication Style by Group					
Management Communication Style by Group	Count	Mean	Std. Dev.		
1. Tell	29	9.2069	8.4235		
2. Sell	31	11.1935	8.0225		
3. Consult	100	13.6100	8.0915		
4. Join	71	12.6761	7.9170		
Total	231	12.4459	8.1505		

Based on the findings, Null Hypotheses 10 and 12 were retained and Hypothesis 11 was rejected. There was no significant interaction between faculty rank and management communication style in relation to job satisfaction/promotion. It was also determined that there was no difference between management communication styles in relation to job satisfaction/promotion. A significant difference was found, however, between faculty ranks in relation to job satisfaction/promotion.

#### Null Hypotheses 13, 14, and 15

- (13) There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/co-workers.
- (14) There is no difference between faculty ranks on the dependent variable of job satisfaction/co-workers.
- (15) There is no difference between management communication styles on the dependent variable of job satisfaction/co-workers.

The analysis of variance for Hypothesis 13 is summarized in Table 20, and the graphic display of cell means is presented in Table 19. The number of cases processed was 236. The p-value for Hypothesis 13 was .685, indicating that no two-way interaction existed between faculty rank and management communication style with regard to job satisfaction/co-workers.

Table 21 displays the one-way analysis of variance between the dependent variable of job satisfaction/co-workers and the independent variable of faculty rank. No two groups were found to be significantly different when examining job satisfaction/co-workers and faculty rank.

Table 22 presents the one-way analysis of variance between job satisfaction/co-workers and management communication style.

Table 19. Table of means for job satisfaction/co-workers by faculty rank and management communication style.

Faculty Rank	MANAGEMENT COMMUNICATION STYLE							
	Tell		Sell		Consult		Join	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Assistant	32.94	16	41.63	8	42.62	37	45.48	25
Associate	37.29	7	39.78	9	42.13	23	42.41	17
Full	35.00	3	44.00	7	44.14	21	50.06	17
Other	45.75	4	39.86	7	45.29	17	48.67	9

Table 20. Two-way ANOVA table for job satisfaction/co-workers by faculty rank and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F	Signif. of F
Main Effects	3025.828	6	504.305	4.966	.000
Faculty rank	663.097	3	221.032	2.177	.092
Mgmt communic style	2168.596	3	722.865	7.119	.000
2-way Interactions	663.784	9	73.754	.726	.685
Rank x MCS	663.784	9	73.754	.726	.685
Explained	3689.612	15	245.974	2.422	.003
Residual	21426.115	211	101.546		
Total	25115.727	226	111.132		

Table 21. One-way ANOVA table for job satisfaction/co-workers and faculty rank.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	841.8529	3	280.6176	2.5868	.0539
Within groups	24299.6155	224	108.4800		
Total	25141.3684	227			
Faculty Rank by Group					
Faculty Rank by Group	Count	Mean	Std. Dev.		
1. Assistant Professor	87	41.6322	12.1533		
2. Associate Professor	56	41.2321	9.3498		
3. Full Professor	48	45.6458	9.3251		
4. Other	37	45.1351	8.3205		
Total	228	42.9474	10.5240		

Table 22. One-way ANOVA table for job satisfaction/co-workers and management communication style.

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Prob.
Between groups	2255.2189	3	751.7396	7.2952	.0001
Within groups	23082.2899	224	103.0459		
Total	25337.5088	227			
Management Communication Style by Group					
Management Communication Style by Group	Count	Mean	Std. Dev.		
1. Tell	30	35.8667	11.1934		
2. Sell	31	41.2258	9.8530		
3. Consult	98	43.2959	10.6279		
4. Join	69	46.0145	8.8259		
Total	228	42.8596	10.5650		

Results of the Student Newman Keuls post hoc procedure indicated the following: group 4 (join) was statistically greater than group 1 (tell), group 2 (sell), and group 3 (consult) when examining job satisfaction/co-workers and management communication style.

Based on these findings, Null Hypotheses 13 and 14 were retained and Hypothesis 15 was rejected. There was no significant interaction between faculty rank and management communication style in relation to job satisfaction/co-workers. Also, there was no difference between faculty ranks with job satisfaction/co-workers. However, there was a significant difference found between management communication styles in relation to job satisfaction/co-workers.

#### Multiple Classification Analysis

A multiple classification analysis was performed for the five dependent variables. The multiple classification analysis examined the independent variables of faculty rank and management communication style simultaneously with each subcomponent of job satisfaction to determine how much of the variance was being accounted for in each sub-dependent category. Results of this analysis are presented in Table 23. Table 23 exhibits an  $R^2$  which was derived from taking the sum of squares of the main effects which were then divided by the total sum of squares to obtain the  $R^2$ . The  $R^2$  in Table 23 is the combined  $R^2$  of the two independent variables of faculty rank and MCSI as they relate to each particular dependent variable (work, supervision, pay, promotion, and co-workers).

Table 23. Multiple classification analysis for the independent variables of faculty rank and management communication style and for the five dependent variables of job satisfaction (work, supervision, pay, promotion, and co-workers).

Dependent Variables	Independent Variables		R <sup>2</sup>	Number	Signif.
	Faculty Rank	Management Com. Style			
Work	.020	.045	.065	230	.05
Supervision	.004	.310	.314	231	.05
Pay	.088	.088	.167	232	.05
Promotion	.074	.030	.104	230	.05
Co-workers	.020	.100	.120	227	.05

### General Summary of Null Hypotheses

Table 24 presents a summary of the 15 null hypotheses, indicating their status of retention or rejection.

Table 24. Summary table of null hypotheses and status of rejection or retention.

No.	NULL HYPOTHESIS STATEMENTS	Retained	Rejected
1	There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/work.	X	
2	There is no difference between faculty ranks on the dependent variable of job satisfaction/work.	X	
3	There is no difference between management communication styles on the dependent variable of job satisfaction/work.		X

Table 24--Continued.

No.	NULL HYPOTHESIS STATEMENTS	Retained	Rejected
4	There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/supervision.	X	
5	There is no difference between faculty ranks on the dependent variable of job satisfaction/supervision.	X	
6	There is no difference between management communication styles on the dependent variable of job satisfaction/supervision.		X
7	There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/pay.	X	
8	There is no difference between faculty ranks on the dependent variable of job satisfaction/pay.		X
9	There is no difference between management communication styles on the dependent variable of job satisfaction/pay.		X
10	There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/promotion.	X	
11	There is no difference between faculty ranks on the dependent variable of job satisfaction/promotion.		X
12	There is no difference between management communication styles on the dependent variable of job satisfaction/promotion.	X	

Table 24--Continued.

No.	NULL HYPOTHESIS STATEMENTS	Retained	Rejected
13	There is no significant interaction between the independent variables of faculty rank and management communication style on the dependent variable of job satisfaction/co-workers.	X	
14	There is no difference between faculty ranks on the dependent variable of job satisfaction/co-workers.	X	
15	There is no difference between management communication styles on the dependent variable of job satisfaction/co-workers.		X

CHAPTER 5  
SUMMARY, CONCLUSIONS, IMPLICATIONS,  
AND RECOMMENDATIONS

This chapter begins with a brief summary of the study and then presents conclusions, implications of the findings, and recommendations for further study.

Summary of the Study

This study examined the relationships between perceived participation in decision making and faculty rank with regard to job satisfaction of faculty members at 10 liberal arts institutions in Montana, Oregon, Idaho, Washington, South Dakota, and Nebraska. This study examined the independent variables of faculty rank (assistant professor, associate professor, full professor, and other) and management communication styles (tell, sell, consult, and join) with the five dependent variables of job satisfaction (work, supervision, pay, promotion, and co-workers).

### Conclusions

To analyze these eight independent and five dependent variables, a series of one-way and two-way analyses of variance were utilized. The five two-way analyses of variance examined the interaction between the independent variables of faculty rank and management communication style on each of the five dependent variables of job satisfaction (work, supervision, pay, promotions, and co-workers). The 10 one-way analyses of variance examined if there was a difference between the variables of faculty ranks (assistant professor, associate professor, full professor, and other) and management communication styles (tell, sell, consult, and join) on each of the five dependent variables of job satisfaction (work, supervision, pay, promotion, and co-workers).

All five hypotheses analyzed by a two-way analysis of variance were retained (Hypotheses 1, 4, 7, 10, and 13). That is, no interaction existed between the independent variables of faculty rank and management communication style with the dependent variables of job satisfaction (work, supervision, pay, promotion, and co-workers). This indicates that these two variables were indeed independent of one another when examining job satisfaction. Thus, rank was not a factor in the determination of job satisfaction among the various management style groups, nor was management style a factor in determining job satisfaction among the various ranks.

The remaining 10 hypotheses (2, 3, 5, 6, 8, 9, 11, 12, 14, and 15) were analyzed by a one-way analysis of variance procedure. This analysis was performed to determine if there was a statistically significant difference between the levels of each independent variable (rank and management communication style) in relation to the five dependent variables of job satisfaction (work, supervision, pay, promotion, and co-workers).

Hypotheses 2, 5, 12, and 14 were retained. Through the retention of these hypotheses, this research population has suggested that there are no significant differences between the independent variables of faculty rank and management communication style for job satisfaction/work, job satisfaction/supervision, job satisfaction/promotion, and job satisfaction/co-workers.

In contrast, Hypotheses 3, 6, 8, 9, 11, and 15 were all rejected. Hypothesis 3 stated, "There is no difference between management communication styles on the dependent variable of job satisfaction/work." It was found that there was a statistical difference between the levels of management communication style (tell, sell, consult, and join) when examining job satisfaction/work. Upon reviewing the Student Newman Keuls post hoc analysis, group 3 (consult) and group 4 (join) both proved to be significantly greater than group 1 (tell).

This finding indicates that faculty who work under the management styles of *consult* and *join* tend to be more satisfied with work itself. Thus, as managers engage in more participative forms of communication style,

faculty report greater levels of satisfaction in relation to their work. This conclusion is consistent with the review of literature. Rice and Austin (1988), Kanter (1983), Guskin and Bassis (1985), and others all confirm that shared governance, faculty input, and collaboration between faculty and administration promote a work environment that leads to increased job satisfaction and improved morale.

Hypothesis 6, "There is no difference between management communication styles on the dependent variable of job satisfaction/supervision," was also rejected. It was found that there was a statistical difference between the levels of management communication styles (tell, sell, consult, and join) when examining job satisfaction/supervision. The Student Newman Keuls post hoc analysis indicated that group 2 (sell) had a statistically greater satisfaction mean than group 1 (tell), group 3 (consult) was statistically greater than group 1 (tell), and group 4 (join) was statistically greater than group 1 (tell). It was also shown that group 3 (consult) and group 4 (join) were statistically greater than group 2 (sell).

These findings indicate that this research population prefers management communication styles of *consult* and *join* rather than the styles of *tell* and *sell* when examining job satisfaction supervision. As with Hypothesis 3, faculty who experienced participative communication styles (consult and join) demonstrated higher levels of satisfaction with supervision. These findings are consistent with the review of literature in that faculty members prefer a

management communication style that consults and joins (i.e., shared governance) rather than tells and sells. Guskin and Bassis (1985) pointed out that the team leader promotes collegiality, information sharing, communication, and "an approach that is more concerned with the process by which decisions are made than with the decisions themselves" (p. 20). This process links faculty and administration into a "common cause." Thus, in this type of leadership, a sense of ownership is given.

Hypothesis 8 was also rejected. This hypothesis stated, "There is no difference between faculty ranks on the dependent variable of job satisfaction/pay." It was found that there is a statistical difference between the variables of faculty ranks when examining job satisfaction/pay. The Student Newman Keuls post hoc analysis indicated that group 3 (full professor) was statistically greater than group 4 (other), group 1 (assistant professor), and group 2 (associate professor). This statistical analysis confirms the conclusion of Salancik (1979) who stated that faculty commitment to an institution is closely tied to faculty rank. The research population of the present study confirms that as increased rank brings honors and privileges, it also usually coincides with increased responsibility and salary.

Hypothesis 9, "There is no difference between management communication styles on the dependent variable of job satisfaction/pay," was rejected. It was shown that there is a statistical difference between the variables of management communication style in relation to job satisfaction/pay. The

Student Newman Keuls post hoc analysis indicated that group 4 (join) was statistically greater than group 1 (tell), group 2 (sell), and group 3 (consult).

The results of this analysis suggest that job satisfaction with pay is highest among those faculty who experience the most participative management communication style (join). This statistical significance was again confirmed in the review of literature. When faculty are exposed to a management style that allows them to "join" in the decision making process, they usually are more content and have more responsibility, and thus have more input into not only the decision making process but with salaries as well. These conclusions are consistent with those of Salancik (1979).

Hypothesis 11 was rejected. This hypothesis stated, "There is no difference between faculty ranks on the dependent variable of job satisfaction/promotion." The Student Newman Keuls post hoc analysis revealed that group 3 (full professor) was statistically greater than group 4 (other), group 1 (assistant professor), and group 2 (associate professor). The results from this research population are consistent with the review of literature; increased rank usually is associated with more responsibility, commitment, and involvement in the decision making process. It would also seem reasonable to conclude that as faculty members are promoted to the highest level (full professor), they would be more inclined to agree with the promotion process. Having succeeded within the promotion process, they validate their own worth by validating the process.

Hypothesis 15 was the final hypothesis rejected. It stated, "There is no difference between management communication styles on the dependent variable of job satisfaction/co-workers." It was found that there was a statistical difference between the variables of management communication styles in relation to job satisfaction with co-workers. The Student Newman Keuls post hoc analysis revealed that group 4 (join) was statistically greater than group 1 (tell), group 2 (sell) was statistically greater than group 1 (tell), and group 3 (consult) was also statistically greater than group 1 (tell). Thus, the least participative style (tell) produced the lowest level of satisfaction with co-workers.

These results indicate that there is a difference between management communication styles in relation to job satisfaction with co-workers. This research population preferred an environment where they were not "told" how to interact; they preferred the other three styles of communication (sell, consult, and join) when interacting with co-workers.

The multivariate classification analysis (Table 23) utilized an  $R^2$  to account for the variance of the levels of the two independent variables, faculty rank and management communication style, as they were related to each subcomponent of job satisfaction (work, supervision, pay, promotion, and co-workers).

An  $R^2$  of .065 was derived when analyzing job satisfaction with work. This indicated that faculty rank and management communication style

accounted for 7% of the variance in job satisfaction with work. An  $R^2$  of .167 was derived when analyzing job satisfaction with pay. This indicated that faculty rank and management communication style accounted for 17% of the variance in job satisfaction with pay. An  $R^2$  of .104 was derived when analyzing job satisfaction with promotion. This indicated that faculty rank and management communication style accounted for 10% of the variance in job satisfaction with promotion. An  $R^2$  of .120 was derived when analyzing job satisfaction with co-workers. This indicated that faculty rank and management communication style accounted for 12% of the variance in job satisfaction with co-workers. Finally, an  $R^2$  of .314 was derived when analyzing job satisfaction with supervision. That is, when examining job satisfaction, the two independent variables of faculty rank and management communication style accounted for 31% of the variance in job satisfaction with supervision.

The research literature indicated that many variables, such as age, tenure, years at an institution, need fulfillment, recognition, and so forth, can all have an influence on overall job satisfaction (V.E. Wheelless et al., 1983). This analysis specifically examined the two independent variables of faculty rank and management communication style. Further elaboration on these variables is provided in the implications section of this chapter.

### Implications

Upon reviewing the multiple classification analysis (see Table 23) and the number of hypotheses that were rejected by performing this analysis (see Table 24), it can be confirmed that faculty rank and management communication style can be important factors when examining job satisfaction. This research has confirmed these findings statistically through the analysis as well as with the reported review of literature.

Since it has been confirmed that faculty rank and management communication style are important factors of job satisfaction, administrators and faculty members in higher education should review each of these variables and determine how they can incorporate these data at their respective institutions. In reviewing faculty rank and how it relates to job satisfaction, institutional leaders should review their promotion and rank process to ensure that faculty are being evaluated and promoted in a timely manner. Tenure status reviews should also coincide with this evaluation. As this analysis has found, and Salancik (1979) has pointed out, faculty rank is one of the most important factors that relates to an individual's commitment to an institution. It would seem that if institutions value faculty satisfaction, these institutions need to promote faculty in a timely manner to higher ranks to get them more involved with and more devoted to their institution. As this increased rank brings about more commitment and responsibility, it should

also coincide with increased privileges and increased pay. Costs for these changes should not be the deciding factor. If administrators are looking to increase morale and job satisfaction and to empower the people of their universities, the cost could be well worth it both in the immediate future as well as for the generations to come.

As rank is especially important to a faculty member's commitment to an institution (Salancik, 1979), the management communication style of the faculty member's immediate supervisor can also be an important component of that individual's work environment and job satisfaction (Rice & Austin, 1988). This analysis has shown that faculty prefer a management communication style that consults and joins them into the decision making process. Rice and Austin (1988) suggested that to promote this type of environment where collaboration exists between the faculty and administration, many other components should also be included. According to Rice and Austin, in addition to participative decision making, organizational culture, organizational momentum, reward systems, and community interaction are all necessary components that can be related to overall job satisfaction and a positive higher educational work environment. If administrators want to embrace this entire concept, they must examine their leadership styles and develop a philosophy of team leadership. Guskin and Bassis (1985) pointed out that the team leader promotes collegiality, information sharing, communication, and "an approach that is more concerned with the process by which

decisions are made than with the decisions themselves" (p. 20). This leadership process links faculty and administration into a "common cause," thereby creating a sense of ownership.

This summary would indicate that this is not simply a leadership style, but a very complex approach that empowers the people and affects the entire campus environment (Guskin & Bassis, 1985). This type of approach could be implemented departmentally, but in order to achieve the ideal results, it should be supported by the central administration both in actions and in resources to enhance the entire campus environment.

This study has confirmed that management communication style and faculty rank can be important factors when examining job satisfaction of faculty members at four-year private institutions in the northwestern United States. As discussed in the review of literature, various researchers have noted that there are many factors that can be considered when analyzing job satisfaction in a higher educational environment. To elaborate on further studies and research, this chapter will conclude with pertinent recommendations.

### Recommendations

The following recommendations for action and for further study are presented based on the findings of this research:

- (1) Further research is suggested using additional variables such as age, tenure, and experience to obtain an all-encompassing analysis of job satisfaction for faculty members in higher education.
- (2) A separate analysis of each institution could be performed, followed by a qualitative analysis (interviews with individual faculty members) to determine how institutions differ in organizational climate and structure. This would be done to "gauge" the community atmosphere of a campus.
- (3) The Job Description Index (JDI) could be revised or a new instrument developed to allow a "total" score to be obtained. This process could include the 72 responses and the current weighting system, but each response could then be given a "total score." In this manner, a total score could be readily obtained for each institution in a selected study.
- (4) Institutions could utilize the findings from this study and from others (such as that of Rice & Austin, 1988) to involve faculty collaboratively with administrators in the decision making process on campus to help promote improved job satisfaction. This study confirms what the review of literature indicated in that the "collegial" model is related to improved job satisfaction and campus morale.
- (5) Further study could be undertaken to determine if management communication style is situational or usually one-sided (i.e., *tell* and *sell* versus *consult* and *join*). In addition to determining if multiple styles were used, it could be beneficial to determine what types of decisions were situational.

- (6) Further study could be undertaken concerning administrators' views towards this type of analysis and if this type of analysis had been conducted simultaneously, what the findings would have been in comparison to faculty job satisfaction as well as administrators' job satisfaction.
- (7) Further study could be undertaken concerning faculty job satisfaction at public institutions, both large and small, to determine if management communication style and faculty rank have a similar or more encompassing effect on job satisfaction at these types of institutions.
- (8) Further study could be undertaken concerning faculty rank as a determinant of job satisfaction, with consideration given to years at a given rank, years to reach the rank of full professor, and if promotion policies are consistent from college to college.
- (9) Further study could examine whether improved participation and communication in the decision making process causes job satisfaction for faculty members to be increased.

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APPENDICES

APPENDIX A

MANAGEMENT COMMUNICATION STYLE

INSTRUMENT (MCSI)

## MANAGEMENT COMMUNICATION STYLE INSTRUMENT

The purpose of the following is to examine the management communication style of your immediate supervisor. Please read carefully, then respond to the three items below the descriptions.

- I. **TELLS.** The supervisor who employs this style always makes the decisions (or receives them from above) and announces them to subordinates, with the expectation they will be carried out without challenge. There is little communication with subordinates. Questions about the job to be done are generally accepted, but questioning the decision is discouraged.
- II. **SELLS.** The supervisor employing this style also makes the decisions (or receives them from above), but rather than simply announcing them, the supervisor tries to persuade subordinates of the desirability of the decisions. The supervisor communicates with subordinates and questions are actively encouraged. Challenges are often met openly with persuasive counter-arguments.
- III. **CONSULTS.** The supervisor employing this style also makes the ultimate decisions, but not until the problem has been presented to subordinates and their advice, information, and suggestions have been obtained. Subordinates communicate with the supervisor to help make the best decision and explore various options based on the needs of the employees and the company.
- IV. **JOINS.** The supervisor employing this style does not make the decisions. Rather, the authority to make the decision is delegated to the subordinates, either in cooperation with the supervisor or in her/his absence. The supervisor defines the problem and indicates the limits within which the decision must be made. Supervisor and subordinates communicate as equals or near equals.

*(continue to next page)*

*Management Communication Style Instrument (continued)*

Please respond to the following items using the above descriptions. Please mark on the General Purpose Answer Sheet the response that is most appropriate (using a number 2 pencil).

- (1) Please mark who your immediate supervisor is in response 109. Please mark (A) if it is the Academic Vice-President, (B) if it is the Dean of the College, (C) if it is the Department Head, or (D) if it is someone else.

- (2) What management communication style does your immediate supervisor use? (Please mark only one number from 110 to 128 in the "A" bubble.)

TELLS	SELLS	CONSULTS	JOINS
110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128			

- (3) What management communication style does your central administration use? (Please mark only one number from 130 to 148 in the "A" bubble.)

TELLS	SELLS	CONSULTS	JOINS
130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148			

APPENDIX B  
JOB DESCRIPTION INDEX  
(JDI)

## JOB DESCRIPTION INDEX

On the General Purpose-NCS Answer Sheet, please mark "A" for yes, "B" for no, or "C" if you are not sure. Please use only A, B, or C. The numbered items are 1-72.

### WORK

- (1) Fascinating
- (2) Routine
- (3) Satisfying
- (4) Boring
- (5) Good
- (6) Creative
- (7) Respected
- (8) Hot
- (9) Pleasant
- (10) Useful
- (11) Tiresome
- (12) Healthful
- (13) Challenging
- (14) On your feet
- (15) Frustrating
- (16) Simple
- (17) Endless
- (18) Gives sense of accomplishment

*Job Description Index (continued)***SUPERVISION**

- (19) Asks my advice
- (20) Hard to please
- (21) Impolite
- (22) Praises good work
- (23) Tactful
- (24) Influential
- (25) Up-to-date
- (26) Doesn't supervise enough
- (27) Quick tempered
- (28) Tells me where I stand
- (29) Annoying
- (30) Stubborn
- (31) Knows job well
- (32) Bad
- (33) Intelligent
- (34) Leaves me on my own
- (35) Lazy
- (36) Around when needed

**PAY**

- (37) Income adequate for normal expenses
- (38) Satisfactory profit-sharing
- (39) Barely live on income
- (40) Bad
- (41) Income provides luxuries
- (42) Insecure
- (43) Less than I deserve
- (44) Highly paid
- (45) Underpaid

*Job Description Index (continued)***PROMOTIONS**

- (46) Good opportunity for advancement
- (47) Opportunity somewhat limited
- (48) Promotion on ability
- (49) Dead-end job
- (50) Good chance for promotion
- (51) Unfair promotion policy
- (52) Infrequent promotions
- (53) Regular promotions
- (54) Fairly good chance for promotion

**CO-WORKERS**

- (55) Stimulating
- (56) Boring
- (57) Slow
- (58) Ambitious
- (59) Stupid
- (60) Responsible
- (61) Fast
- (62) Intelligent
- (63) Easy to make enemies
- (64) Talk too much
- (65) Smart
- (66) Lazy
- (67) Unpleasant
- (68) No privacy
- (69) Active
- (70) Narrow interests
- (71) Loyal
- (72) Hard to meet

APPENDIX C

INSTRUCTION LETTER TO RESPONDENTS



Montana State University  
Bozeman, Montana 59717

Unit of Curriculum & Instruction  
Unit of Educational Leadership

**Department of Education**

College of Education, Health & Human Development

Telephone (406) 994-3120

April 19, 1990

Dear Faculty Member:

As partial fulfillment of my doctoral degree in Higher Education Administration, I have designed a study that will analyze how Participative Decision Making and Faculty Rank relate to Job Satisfaction at selected institutions in Montana, Idaho, Oregon, South Dakota, Washington, and Nebraska. The data for this study will be gathered primarily through two survey instruments.

***INSTRUCTIONS FOR RESPONDENTS:***

In order to efficiently record the responses for this analysis, I will utilize a General Purpose Answer Sheet that will enable me to computerize your responses through optical scanning. For this to be possible, some alternative questions will be used in place of the titles as they are described on the General Purpose Answer Sheet. Please be sure that all responses are *bubbled in* using a #2 pencil; otherwise they cannot be recorded.

For example, where it states *BIRTH DATE -- MO, DAY, and YR*, we would like you to bubble in your age under *YR* (see example).

Under the Special Codes Section, please mark a zero under (K) if you are Tenured, a zero under (L) if you are not Tenured, and a zero under (M) if you are on a Tenure-Track (see example).

(Please refer to the example on the following page. It demonstrates how a 37-year-old Associate Professor, who has been at this institution for four years and is on a Tenure-Track, would bubble in his response.)

In addition to this information, please respond to the Job Satisfaction Index (responses 1-72) designed by Smith, Kendall, and Hulin (1969), and the three questions on the Management Communication Style Instrument (responses 109-148) designed by Richmond and McCroskey (1979). Your input is of great significance in order for this analysis to be completed. Please assist me by returning your survey in the return envelope as soon as possible.



APPENDIX D

GENERAL PURPOSE-NCS

ANSWER SHEET



SIDE 2

A B C D E 101 1 2 3 4 5	A B C D E 111 1 2 3 4 5	A B C D E 121 1 2 3 4 5	A B C D E 131 1 2 3 4 5	A B C D E 141 1 2 3 4 5
A B C D E 102 1 2 3 4 5	A B C D E 112 1 2 3 4 5	A B C D E 122 1 2 3 4 5	A B C D E 132 1 2 3 4 5	A B C D E 142 1 2 3 4 5
A B C D E 103 1 2 3 4 5	A B C D E 113 1 2 3 4 5	A B C D E 123 1 2 3 4 5	A B C D E 133 1 2 3 4 5	A B C D E 143 1 2 3 4 5
A B C D E 104 1 2 3 4 5	A B C D E 114 1 2 3 4 5	A B C D E 124 1 2 3 4 5	A B C D E 134 1 2 3 4 5	A B C D E 144 1 2 3 4 5
A B C D E 105 1 2 3 4 5	A B C D E 115 1 2 3 4 5	A B C D E 125 1 2 3 4 5	A B C D E 135 1 2 3 4 5	A B C D E 145 1 2 3 4 5
A B C D E 106 1 2 3 4 5	A B C D E 116 1 2 3 4 5	A B C D E 126 1 2 3 4 5	A B C D E 136 1 2 3 4 5	A B C D E 146 1 2 3 4 5
A B C D E 107 1 2 3 4 5	A B C D E 117 1 2 3 4 5	A B C D E 127 1 2 3 4 5	A B C D E 137 1 2 3 4 5	A B C D E 147 1 2 3 4 5
A B C D E 108 1 2 3 4 5	A B C D E 118 1 2 3 4 5	A B C D E 128 1 2 3 4 5	A B C D E 138 1 2 3 4 5	A B C D E 148 1 2 3 4 5
A B C D E 109 1 2 3 4 5	A B C D E 119 1 2 3 4 5	A B C D E 129 1 2 3 4 5	A B C D E 139 1 2 3 4 5	A B C D E 149 1 2 3 4 5
A B C D E 110 1 2 3 4 5	A B C D E 120 1 2 3 4 5	A B C D E 130 1 2 3 4 5	A B C D E 140 1 2 3 4 5	A B C D E 150 1 2 3 4 5
A B C D E 151 1 2 3 4 5	A B C D E 161 1 2 3 4 5	A B C D E 171 1 2 3 4 5	A B C D E 181 1 2 3 4 5	A B C D E 191 1 2 3 4 5
A B C D E 152 1 2 3 4 5	A B C D E 162 1 2 3 4 5	A B C D E 172 1 2 3 4 5	A B C D E 182 1 2 3 4 5	A B C D E 192 1 2 3 4 5
A B C D E 153 1 2 3 4 5	A B C D E 163 1 2 3 4 5	A B C D E 173 1 2 3 4 5	A B C D E 183 1 2 3 4 5	A B C D E 193 1 2 3 4 5
A B C D E 154 1 2 3 4 5	A B C D E 164 1 2 3 4 5	A B C D E 174 1 2 3 4 5	A B C D E 184 1 2 3 4 5	A B C D E 194 1 2 3 4 5
A B C D E 155 1 2 3 4 5	A B C D E 165 1 2 3 4 5	A B C D E 175 1 2 3 4 5	A B C D E 185 1 2 3 4 5	A B C D E 195 1 2 3 4 5
A B C D E 156 1 2 3 4 5	A B C D E 166 1 2 3 4 5	A B C D E 176 1 2 3 4 5	A B C D E 186 1 2 3 4 5	A B C D E 196 1 2 3 4 5
A B C D E 157 1 2 3 4 5	A B C D E 167 1 2 3 4 5	A B C D E 177 1 2 3 4 5	A B C D E 187 1 2 3 4 5	A B C D E 197 1 2 3 4 5
A B C D E 158 1 2 3 4 5	A B C D E 168 1 2 3 4 5	A B C D E 178 1 2 3 4 5	A B C D E 188 1 2 3 4 5	A B C D E 198 1 2 3 4 5
A B C D E 159 1 2 3 4 5	A B C D E 169 1 2 3 4 5	A B C D E 179 1 2 3 4 5	A B C D E 189 1 2 3 4 5	A B C D E 199 1 2 3 4 5
A B C D E 160 1 2 3 4 5	A B C D E 170 1 2 3 4 5	A B C D E 180 1 2 3 4 5	A B C D E 190 1 2 3 4 5	A B C D E 200 1 2 3 4 5

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# GENERAL PURPOSE

## NCS®

# ANSWER SHEET

## form no. 4521

### EXAMPLES

WRONG

1 1  3 4 5

WRONG

2 1 2  4 5

WRONG

3 1 2 3  5

RIGHT

4 1 2 3  5

### IMPORTANT DIRECTIONS FOR MARKING ANSWERS

- Use #2 pencil only.
- Do NOT use ink or ballpoint pens.
- Make heavy black marks that fill the circle completely.
- Erase cleanly any answer you wish to change.
- Make no stray marks on the answer sheet.

DO NOT  
WRITE  
IN THIS  
SPACE

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