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AN ANALYSIS OF THE LEADER BEHAVIOR OF MIDDLE MANAGERS
IN SELECTED PUBLIC FOUR-YEAR COLLEGES

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in partial fulfillment of the requirements for the
degree of
DOCTOR OF PHILOSOPHY

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BRYANT LEDGERWOOD
Chickasha, Oklahoma
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AN ANALYSIS OF THE LEADER BEHAVIOR OF MIDDLE MANAGERS
IN SELECTED PUBLIC FOUR-YEAR COLLEGES

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CHAPTER I

INTRODUCTION

The name, middle manager, is a new term when it is applied to positions in educational institutions. This term identifies those individuals who function in the administrative level just below the president. Horne and Lupton in describing the typical middle manager's job assert that middle management does not seem to require the exercise of remarkable powers of analyzing, weighing alternatives, and deciding. Rather the middle manager needs the ability to shape and utilize the person-to-person channels of communication, to influence, to persuade, to facilitate.¹ Painter contends that the middle management person is not a policy-maker, although certainly a decision-maker. The middle manager is responsible for the flow and supervision of merchandise, money, and personnel, and is required to interpret and implement policy decisions.²

¹J.H. Horne and T. Lupton, "The Work Activities of "middle" managers," Journal of Management Studies, No. 1, (1965), p. 32.

²R.L. Painter, "Middle Management: Concept and Program," Business Education Forum, No. 21, (December, 1966), pp. 22-23.

Thus a middle manager may be viewed as a person who makes suggestions and recommendations, but does not usually have final decision-making power except in the implementation of established policy. He interprets policy and establishes the procedures for its implementation. The middle manager also supervises others who work with him in his assigned area of responsibility.

The business manager's position formally came into being in 1912 with the formation of the Central Association of College and University Business Officers. At the first meeting fourteen institutions were represented. Of these fourteen business officers, five had the title of secretary while each of the others used a different title, including business manager, treasurer, financial secretary, comptroller, bursar, secretary and purchasing agent, auditor, accountant, and dean.¹ Nance contends that it was about this time the position of college business officer was established.² Other regional associations were organized which now coordinate their activities in the National Association of College and University Business Officers.

Previous to the establishment of the position of business officer, the duties of business management were

¹Paul K. Nance, Leslie F. Robbins and J. Harvey Cain, Guide to College and University Business Management, U.S. Department of Health, Education, and Welfare, Office of Education, Bulletin, (1965) Number 30, p. 8.

²Ibid., p. 1.

generally carried out by clerks and other subordinates under the supervision of the president, faculty members, or members of the board. Educational departments frequently assumed complete responsibility for business matters in their respective areas. Soon centralization and coordination became necessary. Presidents and deans were overwhelmed with business problems which distracted attention from their chief responsibility of administering academic departments.¹ This situation was brought about by the growth in the size of the institutions and the resultant complexity of the business operations.

The profession of the registrar is not modern. In England it dates back to 1506 when at Cambridge, Robert Hobbs was constituted Registry of the University. Mr. Hobb's job did not deal with credits and transcripts. He was regulator of university ceremonies. An additional duty of the early registrar was the testing of all weights and measures used by the merchants of the town.²

Although Harvard was founded in 1636, it was not until 1828 that the registrar was identified as part of a school administrative staff.³

¹Ibid., p. 2.

²Marian H. Blair, "Our Professional Ancestry," College and University, #1, Volume 6, (Jan., 1931), p. 291.

³William H. Smerling, "The Registrar: Changing Aspects," College and University, Vol. 35, No. 2, (Winter, 1960), p. 180.

In the early days all student records were kept by the president with the occasional assistance of a secretary.¹ In the beginning the position of registrar usually required only a portion of the time of the person holding it. The job was combined with many other responsibilities. The most frequent combinations were Registrar and Secretary to the Faculty, Registrar and Librarian, Registrar and Secretary to the President, and Registrar and Assistant Librarian.²

Although Smerling contends that the development of the office of registrar in the United States began in the 1860's,³ registrars did not organize into an association until 1910. In August of that year, fifteen registrars met in Detroit to organize the American Association of Collegiate Registrars.⁴ McGrath concludes that the office of registrar appears earlier in the large eastern universities

¹Earl J. McGrath, College and University, Proceedings of Meeting, April, 1936, p. 205 (A chapter of author's Doctor's dissertation at the University of Chicago, The Evolution of Administrative Institutions of Higher Education in the United States, 1860-1933). In selected readings in the field of Admissions-Registration-Records, collected by R.E. McWhinnie, Prepared for the College of the Pacific.

²Ibid.

³Smerling, p. 182.

⁴C.E. Friley, "The Development of the Registrar, 1915-1925," (from College and University, page 199, Proceedings of Meeting, April 1926,) In selected readings in the field of Admissions-Registration-Records, Collected by R.E. McWhinnie, Prepared for College of the Pacific, Summer 1958, p. 27.

than in other universities.¹ He advances the hypothesis that the appearance of this office is a response to the increased student bookkeeping occasioned by the introduction of the elective system.² In all probability both the increase in the size of the institution and the increased demand created by program changes contributed to the formal development of the office of the registrar.

The third middle management position, the dean of students, is drawn from the student personnel area. The identification of a new profession begins when official titles are applied to specialists in the field, when formal statements of purpose are written and issued to the public, when workers come together in national associations, and when the first pamphlets, journals, and textbooks are published. Mueller suggests that for personnel work all these events occurred shortly after 1900.

Five pressures converged to cause the emergence of this position. The first pressure was the coeducational movement begun by Oberlin in 1837. Admission of women to the institution created the need for lady assistants who were the forerunners of the deans of women.⁴

¹McGrath, p. 22.

²Ibid., p. 18

³Kate Hevner Mueller, Student Personnel Work in Higher Education, (Boston: Houghton Mifflin Company, 1961), p. 50.

⁴Ibid., p. 54.

The second pressure was the Land Grant College Act of 1862 which altered the programs of study for many institutions. This change in curriculum also brought about a change in the professor's preparation for teaching. Many went to Germany for their training. While they were there, they became imbued with a thoroughgoing intellectual impersonalism which led them to completely disregard their students outside of the class.¹

The third pressure arose due to the popularizing of a concept in student housing. Many American colleges resisted for decades the building of college residences. Only Yale persisted in the view that the communal life had high educational value. When Yale man William Rainey Harper became president of the University of Chicago in 1890, he gave impetus to the residential concept of student housing which caused it to spread to other institutions.² This expanded the need for personnel who would be in charge of the living accommodations.

The fourth pressure came from increased enrollment of heterogenous student populations. Larger student bodies created new stresses on the existing institutional structures which were in part solved by the hiring of specialists to deal with these problems. The fifth pressure came from

¹Ibid., p. 52.

²Ibid., p. 120.

public opinion. It was felt that once a college had admitted a student, it assumed a moral obligation to do everything within reason to help him succeed.¹ Institutions responded to this view by employing personnel workers trained in student counseling, primarily deans of men.

The National Association of Women Deans and Counselors, formed in 1916, was followed by the formation of the National Association of Deans of Men in 1919.² After World War II the position of dean of students emerged. This new role contributed to the organization of the National Association of Student Personnel Administrators.

Thwing, writing in 1900, stated that when the colleges had only three or four hundred students, the work of the president could be done without difficulty by one who was also filling a professor's chair.³ However he recognized, that an increase in enrollment caused an increase in the responsibilities of the position of the president.

Thus, the three middle manager positions of business manager, registrar, and dean of students, have been developed in order to relieve the president of specific responsibilities in these designated areas. The result of this delegative process has been to increase the number of persons who share in the leadership function which was formerly

¹Ibid., p. 54.

²Ibid., p. 517.

³Charles F. Thwing, College Administration, (New York: The Century Company, 1900), p. 52.

restricted to the president.

THE PROBLEM

Statement of the Problem. The purpose of this study is: (a) to compare the leader behaviors and performance scores of middle managers (business managers, registrars, and deans of students) in colleges, (b) to determine if there is a significant relationship between the self-reported and peer-reported leader behavior of middle managers in colleges, (c) to determine if the leader behavior of middle managers in colleges is significantly related to other variables such as level of responsibility, years spent in present position, salary level, age, location of previous position, and size of institution.

Need for the Study. The lack of available information indicating who college middle managers are, what they do, and how they do their jobs is the primary justification for this study. Another reason for this study is the need of college top management to know what kind of behavior to expect from middle managers working in certain positions and having certain characteristics. This kind of information can also be useful in supervising middle managers, in planning change within the institution, in reassigning duties, in replacing vacancies, and in encouraging the total leadership behaviors which contribute to effective institutional goal attainment.

Limitations of the Study. This study is limited to selected middle managers employed in all public, four-year institutions of higher education, except universities, in District VII of the United States Department of Health, Education, and Welfare as identified in the Education Directory, 1968-69, Part 3, Higher Education. This geographic area includes the states of Arkansas, Louisiana, Texas, Oklahoma, and New Mexico. From a total of 330 public, four-year colleges in the United States, forty-six institutions are located in District VII.

SUMMARY

A middle manager is defined as a person who does not make policy decisions, but who interprets and implements the policy made by the top management of the institution. A middle manager supervises other workers who assist him in carrying out his job assignments. Three positions: business manager, registrar, and dean of students were identified in each of the forty-six institutions selected for this study. Although various titles were used for these three positions, it was possible to identify one person in each institution who functioned as a business manager, a registrar, and dean of students.

A brief historical review of the three positions revealed that they had their formal beginnings in the early 1900's. The tasks of each of these positions were formerly

performed either by the president, by clerical workers under his supervision, or by a faculty member working in the position part-time. Increased student enrollments plus an increase in expected student services seem to be the forces behind the emergence of the three middle management positions.

This study is conducted in order to identify the significant relationships which exist between the leader behaviors of middle managers, and to identify those behaviors which are significantly related to other background and situational variables.

CHAPTER II

SURVEY OF THE LITERATURE

I. INITIAL EMPHASIS OF LEADERSHIP RESEARCH

In 1928 W.H. Cowley defined a leader as "an individual who is moving in a particular direction and who succeeds in inducing others to follow him."¹ This individualistic concept of leadership led to research in which the main emphasis was focused on finding specific traits which would discriminate between leaders and non-leaders. The leadership of this early era was studied informally by observing the lives of great men, and formally by attempting to identify the personality traits of acknowledged leaders through assessment techniques.² Although this method of research identified some of the general characteristics of groups of leaders, a survey of the literature made by Stogdill in 1948 indicates that the trait approach to

¹William H. Cowley, "Three Distinctions in the Study of Leaders," Journal of Abnormal Psychology, XXIII (1928), pp. 144-157.

²David G. Bowers and Stanley E. Seashore, "Predicting Organizational Effectiveness with a Four-Factor Theory of Leadership," Administrative Science Quarterly, Volume II, Number 11 (1966), pp. 238-63.

leadership yielded meager and often contradictory results.¹ Shartle states that the trait approach reached an impasse before the beginning of World War II.²

In 1949 Hemphill demonstrated empirically through his study of 500 assorted groups that variance in leader behavior is significantly associated with situational variance. Hemphill found that the size of a group is a situational determinative which affects the behavior of the leaders. In general, the leader of a large group tends to be more impersonal and is inclined to enforce rules and regulations firmly and impartially. In smaller groups the opposite is true, and the leader plays a more personal role by being willing to make exceptions to rules and to treat each group member as an individual.³ Halpin feels that situational emphasis arose as a reaction to the trait approach.⁴

Sanford aptly summarized the situation by saying "From all these studies of the leader we can conclude, with

¹Ralph M. Stogdill, "Personal Factors Associated with Leadership: A Survey of the Literature," Journal of Psychology, Number 25 (1948), pp. 35-71.

²Carroll L. Shartle, "Studies in Naval Leadership, Part I," Groups, Leadership and Men: Research in Human Relations, ed. H. Guetzknow, (Pittsburgh: Carnegie Press, 1951), p. 1.

³John K. Hemphill, Situational Factors in Leadership, Bureau of Educational Research, Monograph No. 32, (Columbus: Ohio State University, Bureau of Educational Research, 1949).

⁴Andrew W. Halpin, Theory and Research in Administration, (New York: The MacMillan Company, 1966), p. 84.

reasonable certainty, that; (a) there are either no general leadership traits or, if they do exist, they are not to be described in any of our familiar psychological or common-sense terms, (b) in a specific situation, leaders do have traits which set them apart from followers, but what traits set what leaders apart from what followers will vary from situation to situation."¹

It is the belief of Halpin that we will greatly increase our understanding of leadership phenomena if we abandon the notion of leadership as a trait, and concentrate instead upon an analysis of "the behavior of leaders."² Halpin feels that this change in emphasis limits us to dealing with formal organizations, and focuses our attention upon the "head men" within these organizations. He admits that this was an heuristic decision, defended primarily by the need to start somewhere.³ In this selection and definition of a leader, Halpin agrees with Shartle who states that a leader is an individual in a given office or position of apparently high influence potential.⁴

Halpin expresses the expectation that as more information

¹Fillmore H. Sanford, "Research on Military Leadership," Psychology in the World Emergency, John C. Flanagan, ed., (Pittsburg: University of Pittsburg Press, 1952), p. 51.

²Halpin, Theory and Research in Administration, p. 81.

³Ibid., p. 85.

⁴Shartle, pp. 121-122.

is gathered, a conceptual framework will be built within which additional hypotheses about leader behavior can be tested.¹

Halpin indicates that there are two major methodological advantages to be gained by shifting the emphasis to the behavior of leaders. First, the investigator can deal directly with observable phenomena rather than upon a posited capacity. The term "leader behavior," he explains, does not suggest that behavior is determined either innately or situationally. Either determinant is possible, as is any combination of the two. Secondly, researchers are reminded of the importance of differentiating between the description of how leaders behave and the evaluation of the effectiveness of their behavior in respect to specified performance criteria.² French reacts to this shift toward behavioral emphasis in leadership research by acknowledging that it has become popular in recent years to downgrade the importance of traits in discussing leadership and to focus on behavioral and situational variables. He states that in his opinion, all three approaches to the study of leadership are essential.

¹Halpin, Theory and Research in Administration, p. 85.

²Ibid., p. 86.

³Wendell French, The Personnel Management Process, (New York: Houghton Mifflin Company, 1964), Footnote, p. 498.

II. THE BEGINNING OF LEADER BEHAVIOR RESEARCH

The behavioral approach to leadership research was begun in 1945 at Ohio State University by the Bureau of Business Research. It was believed that an interdisciplinary approach would broaden the field of inquiry, and that the utilization of both practitioners and theorists as consultants would serve to keep the research oriented toward everyday realities. Those selected to carry out the research were economists, psychologists and sociologists.¹

After extended discussions, a list of nine dimensions was tentatively designated. Each of the staff of the Personnel Research Board wrote items of behavior which seemed to apply to the nine dimension areas. There were 1,790 items gathered from all sources. These items were then classified into the nine tentative dimensions. Group discussion was held concerning each item and 200 items were selected. The staff then decided to reduce the number to 150 items to be suitable for use with IBM Test Answer Sheets. The staff then screened the dimensions a second time and redefined them as follows:

Initiation. This dimension is described by the frequency with which a leader originates, facilitates, or resists new ideas and new practices.

¹Ralph M. Stogdill and Carroll L. Shartle, Methods in the Study of Administrative Leadership, (Columbus: Ohio State University, Bureau of Business Research Monograph 80, 1957), Preface.

Membership. The dimension of membership described the frequency with which a leader mixes with the group, stresses informal interaction between himself and members, or interchanges personal services with members.

Representation. This dimension is described by the frequency with which a leader defends his group against attack, advances the interests of his group and acts in behalf of his group.

Integration. This dimension is described by the frequency in which a leader subordinates individual behavior, encourages pleasant group atmosphere, reduces conflicts between members, or promotes individual adjustment to the group.

Organization. This dimension is described by the frequency with which a leader defines or structures his own work, the work of other members, or the relationships among members in the performance of their work.

Domination. The dimension, domination, is described by the frequency with which the leader restricts the behavior of individuals or the group in action, decision-making, or expression of opinion.

Communication. This dimension is described by the frequency with which a leader provides information to members, seeks information from them, facilitates exchange of information or shows awareness of affairs pertaining to the group.

Recognition. This dimension is described by the frequency with which a leader engages in behavior which expresses approval or disapproval of the behavior of group members.

Production. This dimension is described by the frequency with which a leader sets levels of effort or achievement, or prods members for greater effort or achievement.

The Communication dimension was split into Communication Up and Communication Down. This made a total of ten dimensions. These dimensions were made invisible to the respondent by randomizing the items forming the dimensions.¹

Items were arranged to form the Leader Behavior Description Questionnaire (LBDQ) which was tested by being administered to 357 individuals. There were 205 of the respondents who described a leader in which they were members of a group, and 152 who described themselves as leaders. Two factor analyses were made: one for the matrix of intercorrelation for subordinates' descriptions of their leaders, and a second for the leaders' description of their own behavior. The factor analysis identifies three general factors.

Factor I was tentatively designated as Maintenance of

¹John K. Hemphill and Alvin E. Coons, "Development of the Leader Behavior Description Questionnaire," ed. Ralph M. Stogdill and Alvin E. Coons Leader Behavior: Its Description and Measurement, (Columbus: Ohio State University, Bureau of Business Research Monograph Number 88, 1957), pp. 11-12.

Membership Character. This factor represents behavior which permits a leader to be considered a "good fellow" by his subordinates. It reflects behavior which is socially agreeable to group members. Factor II was identified as Objective Attainment Behavior and has to do with the output of the group. Three dimensions: Production, Organization, and Representation have high loadings on this factor. Factor III was identified as Group Interaction Facilitation Behavior and involves behavior which would enable group members to recognize their functions in the group, and to know what is going on.¹

A second factorial study was done by Halpin and Winer who used a revised form and analyzed data collected from airforce crews. The factor analysis of Halpin and Winer produced four orthogonal factors: (1) Consideration, behavior indicative of friendship, mutual trust, respect, and warmth, (2) Initiating Structure, behavior that organizes and defines relationships or roles, and establishes well-defined patterns of organization, channels of communication, and ways of getting jobs done, (3) Production Emphasis, behavior which makes up a manner of motivating the group to greater activity by emphasizing the mission or job to be done, (4) Sensitivity (social awareness), behavior which reflects sensitivity of the leader to, and his awareness of, social

¹Ibid., pp. 6-27

interrelationships and pressures inside or outside the group.¹ Subsequent investigators have dropped the third and fourth factors because they account for too little common variance.² Factors I, Consideration, and II, Initiating Structure, account for 83.2 per cent of the common-factor variance.³

About the same time this work was being done at Ohio State University, a similar program of research was occurring at the University of Michigan Survey Research Center. This program developed two concepts called "employee orientation" and "production orientation."⁴ Employee orientation is described as the behavior of a supervisor who considers the employees as human beings of intrinsic importance, takes an interest in them, and accepts their individuality and personal needs. Production orientation is described as the behavior of a supervisor in which the production and technical aspect of the job is stressed with

¹Andrew W. Halpin and B. James Winer, "A Factorial Study of the Leader Behavior Descriptions", ed. Ralph M. Stogdill and Alvin E. Coons Leader Behavior: Its Description (Columbus: Ohio State University, Bureau of Business Research Monograph Number 88, 1957), pp. 39-51.

²Bowers and Seashore, pp. 238-63.

³Halpin and Winer, Leader Behavior: Its Description, Monograph 88, 1957.

⁴D. Katz, N. Maccoby and Nancy Morse, Productivity, Supervision, and Morale in an Office Situation (Detroit: The Darel Press, Inc., 1950); D. Katz, N. Maccoby, G. Gurin and Lucretia G. Floor, Productivity, Supervision, and Morale Among Railroad Workers (Ann Arbor: Survey Research Center, 1951), pp. 39-51.

the employees viewed as the means for getting work done. These two dimensions were originally conceived to be at opposite poles of the same continuum, but Kahn later represents them as independent dimensions.¹

III. THE EXPANSION OF LEADER BEHAVIOR RESEARCH

Although the Leader Behavior Description Questionnaire (LBDQ) was developed primarily from studies of aircraft commanders, it has been successfully revised and adapted for use in studying the behavior of leaders in education and industry.

Two studies by Halpin are briefly reviewed as examples of several Air Force studies done between 1950 and 1955. The first study describes twenty-nine commanders for whom LBDQ scores were obtained during training in the fall of 1950. These men were rated on their combat performance in flying over Korea in 1951. They were also rated on the LBDQ by their combat crews and a Crew Satisfaction Index was obtained from twenty-seven of the crews. The LBDQ scores in training were correlated with the satisfaction index and with the superiors' ratings of the commanders' combat performance. Correlations were computed between the training and combat scores. In both training and combat situations negative correlations were found between the superior's

¹F.L. Kahn, "The Prediction of Productivity," Journal of Social Issues, 12 (1956), pp. 41-49.

rating and the Consideration scores. Positive and high correlations were found between the Crew Satisfaction Index and Consideration. Thus superiors and subordinates are inclined to view and evaluate oppositely the contribution of Consideration to effective leader behavior.¹

In a second study eighty-seven aircraft commanders, flying combat missions over Korea, were the subjects. The design of the study was similar to the one used in the first study. The leader behavior dimensions, Consideration and Initiating Structure, were correlated with the ratings by superiors and by crew members, and with the Crew Satisfaction Index. The ratings by superiors yielded significant correlations with Initiating Structure, but not with Consideration. The ratings by the crew correlated significantly with both dimensions, but was higher for the Consideration dimension. In additional analysis, the commanders were divided into two groups according to their "over-all effectiveness in combat." The scores for commanders in the upper 15 per cent of the rating distribution were compared to the scores for commanders in the lower 15 per cent. The result indicated that the commanders who score above the mean on both Consideration and Initiating Structure are evaluated high on effectiveness by their superiors, while

¹Andrew W. Halpin, "The Leadership Behavior and Combat Performance of Airplane Commanders," Journal of Abnormal and Social Psychology, 49 (January 1954), pp. 19-22.

those commanders who score below the mean on both dimensions are likely to be rated low in effectiveness. This seems to indicate that the successful leader is the person who furthers group maintenance and group achievement.¹

In a third study by Christner and Hemphill, fifty-two newly-created crews describe their commanders on the LBDQ and rated each other and the crews on attitude measures of "crew morale," "friendship," "proficiency," and "willingness to go into combat with each other." These measures of crew attitudes were taken twice, once at the beginning of a ten day training period and once at the end of training. Correlations were computed between changes in attitude and the Initiating Structure and Consideration scores for commanders on the Leader Behavior Description Questionnaire. It was concluded that during this initial period of crew assembly, crew members whose commanders scored high on both Consideration and Initiating Structure tended to develop more favorable crew attitudes than crew members whose commanders scored low on both dimensions.²

When Halpin compared the leader's ideal (how he thinks

¹Andrew W. Halpin, "Studies in Aircrew Composition: III," The Combat Leader Behavior of B-29 Aircraft Commanders, HFORL memo, No. TN-54-7 (Washington, D.C.: Human Factors Operations Research Laboratory, Bolling Air Force Base, September 1953).

²Charlotte A. Christner and John K. Hemphill, "Leader Behavior of B-29 Commanders and Changes in Crew Members' Attitudes Toward the Crew," Sociometry, 18 (February 1955), pp. 82-87.

he should behave as a leader) to the leader's real behavior as observed by his subordinates, he found little relation between the two. Halpin also discovered that aircraft commanders and school superintendents differ both in their behavior as described by subordinates and in their leadership ideology as indicated by the Ideal form of the LBDQ. Both groups of leaders indicate that they show more Consideration and Initiating Structure than their followers describe them as doing. In this study aircraft commanders exhibit more Initiating Structure and less Consideration than educational administrators.¹ Part of the variance between these two groups may be explained by the expectations of the groups from which the samples were selected.

Getzels explains "social behavior" as interaction between two classes of phenomena. He states that there are first the institutions with certain roles and expectations that will fulfill the goals of the system. And there are second the individuals with certain personalities and need dispositions. Getzels asserts that this social behavior may be understood as a function of these major elements.²

¹Andrew W. Halpin, "The Observed Leader Behavior and Ideal Leader Behavior of Aircraft Commanders and School Superintendents," ed. R.M. Stogdill and A.E. Coons, Leader Behavior: Its Description and Measurement, (Columbus: Ohio State University, Bureau of Business Research, Monograph No. 88, 1957), pp. 65-68.

²Jacob W. Getzels, "Administration As A Social Process," Administrative Theory in Education, ed. Andrew W. Halpin, (1958), p. 152.

Getzels contends that to understand the behavior of a specific role, we must know both the role-expectations and the need-dispositions of the incumbent.¹

Getzels and Guba identify three types of leadership. The first is the nomothetic style which emphasizes the requirements of the institution, roles, and role expectations. The second is the idiographic style which emphasizes the needs and demands of the individual role incumbent. The third is the transactional style which embraces an intermediary position between the nomothetic and idiographic styles.² Hemphill, in exploring the relationship between the leader behavior of the administrator of the department and the reputation of his department for being well-administered, sought to determine the usefulness of reputational data as criteria of administrative quality.³ Hemphill reached the following conclusions:

1. Administrative "reputation" of the college department was reliably reported by faculty members.
2. Older faculty members provided a larger proportion of the "reputation" information than the "younger"

¹Ibid., p. 155.

²J.W. Getzels and E.G. Guba, "Social Behavior and the Administrative Process," School Review, 65 (Winter 1957).

³John K. Hemphill, "Leadership Behavior Associated with the Administrative Reputation of College Departments," The Journal of Educational Psychology, 46, No. 7 (November 1955), pp. 385-401.

or "new" members of the faculty.

3. "Reputation" for being well-administered is related to the leadership behavior of department chairmen as this behavior is described by department members. Those departments with best "reputations" for good administration have chairmen who are described as above the average on both Consideration and Initiating Structure.
4. Larger departments tend to have better administrative reputations than smaller departments. This fact is independent of the Initiating Structure activity of the chairman and may indicate only that more care is exercised in selecting chairmen of large departments.
5. With the exception of size, all group characteristics and those described by means of the Group Description Questionnaire, showed no significant relationship to reputation for good administration.

An additional educational study is Halpin's examination of the leader behavior of the school superintendent. He is not primarily concerned with evaluating the superintendents, but is interested in contrasting the relationship between the superintendent's own perception of how he behaves on the Initiating Structure and Consideration dimensions to the perceptions of his staff and board. Halpin is interested in both their "Real" and "Ideal" perceptions of the

superintendent's behavior.

Halpin's findings can be summarized as follows:

1. Although there is agreement within each group in describing the superintendent's leadership behavior, the two groups, staff and board, do not agree with each other. This finding seems to indicate that superintendents tend to adopt different behavioral roles in dealing with members of staff and members of the board.

2. Even though there is statistically significant agreement among board members in their description of the superintendent's behavior, this agreement is far from perfect. The unbiased correlation ration is .52 for Initiating Structure and .63 for Consideration for board members and .44 for each dimension for the staff members.

3. The boards believe that a superintendent should be very strong in Initiating Structure. Staff members however, prefer less Initiating Structure than the superintendents believe they should exercise.

4. All three groups depict an Ideal superintendent as one who scores high on both Consideration and Initiating Structure.

5. The perceived (Real) leadership behavior of the fifty superintendents differs significantly from the Ideal behavior expected of superintendents by all three groups.

Halpin concludes that the findings are consistent with the results of the earlier Air Force study in which it was

found that aircraft commanders rated effective scored high on both leader behavior dimensions. These results also parallel Hemphill's finding that college departments with a campus reputation for being well-administered are directed by chairmen who score high on both leader behavior dimensions.

Halpin describes an effective leader as "one who delineates clearly the relationship between himself and the members of the group, and establishes well-defined patterns of organization, channels of communication, and ways of getting the job done. At the same time, his behavior reflects friendship, mutual trust, respect, and warmth in the relationships between himself and the members of the group."¹

Fleishman describes the development and application of a Leader Behavior Description for use in industry.² Two forms were developed for a project on leadership sponsored by the International Harvester Company in cooperation with the Personnel Research Board. The first, a Supervisory Behavior Description (SBD),³ was constructed using the Air

¹Halpin, Theory and Research in Administration, p. 118.

²Edwin A. Fleishman, "A Leader Behavior Description For Industry," ed. R.M. Stogdill and A.E. Coons, Leader Behavior: Its Description and Measurement (Columbus: Ohio State University, Bureau of Business Research, Monograph No. 88, 1957), pp. 120-23.

³Ibid.

Force data as a base. Subordinates used this form to describe the behavior of their own supervisors. New keys were developed selecting the highest loadings and purest factor structure for each of four factors; Consideration, Initiating Structure, Production Emphasis, and Social Sensitivity.

Use of the questionnaire indicated that samples of foremen score lower on Consideration and Initiating Structure than do samples of supervisors who are a step above the foreman level. The results indicate no significant correlation between the two dimensions and foreman's education, age, time with the company, time as a supervisor, or number of men supervised.

The second form, the Leadership Opinion Questionnaire (LOQ),¹ was developed to measure the leadership attitudes of the supervisor. This questionnaire was administered to various samples of foremen and supervisors. Each participant was asked to indicate how frequently he thought he should do what each item described. The results were correlated with several other measures of personality. In general, the correlations between leadership attitudes and personality measures of this type are low or insignificant. Both of these industrial versions of the LBDQ are designed

¹Edwin A. Fleishman, "The Leadership Opinion Questionnaire," ed. R.M. Stogdill and A.E. Coons, Leader Behavior: Its Description and Measurement (Columbus: Ohio State University, Bureau of Business Research, Monograph No. 88, 1957), pp. 120-23.

to provide independent measures of Consideration and Initiating Structure.

As part of a test validation project, Bass studied the related characteristics of 265 salesmen and sales supervisors of a goods distributing company.¹ Along with the LBDQ, personal characteristics, ratings by superiors and associates, and several tests were given to each salesman and supervisor. Inspection of the data suggests that sales supervisors were described with more Consideration and Initiating behavior than are salesmen, although the differences are too small to be statistically significant. Consideration approaches statistical significance with age and seniority in the supervisor samples. Age and marital status are negatively related to Initiation in one supervisor sample. None of the personal characteristics is highly correlated with the leader behavior scores of salesmen. Also none of the ratings by superiors and subordinates is related to the leader behavior description scores for salesmen or supervisors. Some regional differences were noted in this study.

Stogdill, Scott, and Jaynes developed a short scale to be used to obtain data on several sets of variables. This

¹Bernard M. Bass, "Leadership Opinions and Related Characteristics of Salesmen and Sales Managers," ed. R.M. Stogdill and A.E. Coons, Leader Behavior: Its Description and Measurement (Columbus: Ohio State University, Bureau of Business Research, Monograph No. 88, 1957), pp. 134-39.

short scale was administered to forty-two commissioned officers and to thirty-three officers in a naval command staff. The result of a factor analysis was the identification of three orthogonal factors. Factor I was identified as Administrative Control and appears to have much in common with the factor identified by Hemphill and others as "Initiation of Structure in Interaction." Factor II is identified as Effective Interpersonal Relations and appears to be similar, but not identical, to the factor identified by Hemphill and others as "Consideration." Factor III is identified as Public Relations, or Representation. This factor differs from the results obtained in other studies. The appearance of this factor in two different samples, a cruiser and a command staff, lends weight to the reality of the factor.¹

IV. TRENDS IN LEADER BEHAVIOR RESEARCH

Due to the need of organizations to select and develop effective managers, emphasis continues to be given to the study of leader behavior. Internal sources of managers are: promotion from lower level managerial jobs, promotion from nonmanagerial jobs, and lateral transfers. External

¹R.M. Stogdill, E.L. Scott, and W.E. Jaynes, "A Factorial Study of Very Short Scales," ed. R.M. Stogdill and A.E. Coons, Leader Behavior: Its Description and Measurement, (Columbus: Ohio State University, Bureau of Business Research, Monograph No. 88, 1957), pp. 140-52.

sources include new college graduates and employees from other organizations.¹

When a manager is selected from outside the organization the focus of concern is upon presumed traits or characteristics which can be measured at the time of application for employment. However a shift of emphasis occurs when the manager is being selected from within the organization. The emphasis tends to become more results-oriented (or product oriented). Within business organizations promotion from within seems to be gaining in practice. A recent survey indicated that at all levels of management, at least 90 to 95 per cent of managers had come from within the company.² This pattern of promotion from within increases the importance of the initial selection decision (to take a person into an organization). These initial decisions in effect are selecting the men who will be the future managers of an organization.

This pattern creates a need for training programs which improve management performance and prepare managers for possible future promotions.³ Training programs have become

¹John P. Campbell, Marvin D. Dunnette, Edward E. Lawler, III, and Karl E. Weick, Jr., Managerial Behavior, Performance, and Effectiveness, (New York: McGraw-Hill Book Company, 1970), pp. 22-25.

²Ibid., p. 23.

³J.K. Bailey, "The Goals of Supervisory Training: A Study of Company Programs," Personnel, XXXII (1955), pp. 152-55.

big business. One study revealed that in a sample of thirty-five companies employing 10,000 or more employees, eight spent more than \$1 million per year on just in-company training. One organization spent over \$15 million on in-company training and development programs.¹ Two needs have grown out of this enlarged emphasis on selection and development of managers. There is the need of being able to evaluate the effectiveness of a variety of training programs by measuring specific changes in attitudes and behavior. There is also the need of being able to predict the success of certain individuals having identifiable characteristics, performing certain tasks, in a particular work situation.

Because managerial jobs differ greatly and change rapidly, research is needed which will discover the fundamental dimensions along which they differ and to develop ways of measuring them.²

To develop managerial job dimensions requires the following four steps:

1. Accumulation of systematic observations, reports, or records of many managers' job-behaviors.
2. Analysis of these records to discover broader behavioral content categories which permit defining

¹O.N. Serbein, Educational Activities of Business, (Washington: American Council on Education, 1961).

²John P. Campbell et al., p. 72.

relatively similar groupings of behavioral components.

3. Testing of these behavioral categories by observing managerial behavior and describing the major dimensions.

4. Modification of categories as indicated by these new observations.¹

Stewart lists three methods commonly used to study what managers do on their jobs. First, an observer may record what a manager does. Second, the manager may keep a diary of his activities during a workday. Third, a manager may be asked to estimate how he spends his time or use a checklist of job duties or behaviors to indicate what he perceives to be the important behavioral elements and requirements of his job.

One publication which has resulted from efforts to describe and classify jobs in industry is the Dictionary of Occupational Titles (DOT).³ The latest Third Edition attempts to reflect the relationships among different jobs and the varying requirements made on the workers. Eight classification components are used: training time, aptitudes, interests, temperaments, physical demands, working conditions, industry, and work performed. This classification

¹ Campbell et al., p. 72.

² R. Stewart, Managers and Their Jobs, (London: MacMillan Company, 1967).

³ Dictionary of Occupational Titles, Definition of Titles, 3rd edition, United States Dept. of Labor, W. Willard Wirtz, Sec., U.S. Gov. Printing Office, Washington, Volume 1, 1965.

system was tested on a sample of 4,000 jobs selected from the Dictionary. Next, pilot studies were conducted for experimental purposes in a number of local employment service offices in several states. Further adaptations and adjustments were made. The final information presented in the third edition uses the eight classification components mentioned above. Additional data was collected from business organizations, trade associations, professional societies, and other government agencies. Thousands of reports were also received from all fifty state employment services describing jobs which operating personnel could not find or classify in the Dictionary. These reports added to the accumulated knowledge and identified groups of new occupations.

Three new brochures were published: "Occupations in Electronic Data-Processing Systems," "Selected Occupations Concerned with Atomic Energy," and "Technical Occupations in Research, Design, and Development Considered Directly Supporting to Engineers and Physical Scientists." This information represents the work done since 1939 in this area of job analysis and description. Primarily these efforts have focused on industrial workers in non-supervisory jobs. In more recent times all areas have been included and now all levels of management are included in these descriptions. Research is needed to determine if the information which we now have actually does reflect the various elements of

managerial jobs.

Several factor analytic studies have been done in an effort to isolate the basic dimensions of supervisory, managerial, or executive behavior. Campbell lists seven factor analytic studies which have been reported since 1960.¹ These studies have been conducted on groups of business executives, government executives, supervisors (2 groups), presidents of corporations, presidents of labor unions, and United States Senators. Many of the factorings end either with two distinct factors or with two groupings of factors roughly analogous to the factors of consideration and initiating structure first identified and named as part of the Ohio State Leadership Studies.²

However, Stogdill contends that it has not seemed reasonable to believe that two factors are sufficient to account for all the observable variance in leader behavior. Stogdill postulates additional dimensions based on his theory of role differentiation and group achievement and upon the results of empirical research. Although LBDQ - Form XII represents the fourth revision of the questionnaire, Stogdill suggests that it is subject to further revision.³

¹Campbell et al., p. 84.

²Ibid.

³Ralph M. Stogdill, Manual For The LBDQ - Form XII: An Experimental Revision, (Columbus: Ohio State University, Bureau of Business Research, 1963), p. 2.

Measures of leader behavior have also been used in an effort to determine the effect of training programs. One of the earliest research programs on leader behavior using the Leadership Opinion Questionnaire (LOQ) as measurement instrument¹ was the program carried out by the International Harvester Company.¹ Intensive courses were conducted for supervisors at the company's Central School in cooperation with the University of Chicago. Four studies were done in all. In the first study, Fleishman used an experimental group of forty-six supervisors.² Their training at the Central School resulted in a significant decrease in the average Initiating Structure score and a significant increase in the average Consideration score.

The second study conducted by Fleishman, Harris, and Burt³ involved four groups of foremen, three experimental and one control.³ The Leadership Opinion Questionnaire and LBDQ were used as post measures only and given after staggered time intervals. The results were surprising. The only significant difference, the subordinates' descriptions of the supervisor's behavior, was in the "wrong" direction. The first experimental group after training was described

¹Campbell et al., pp. 300-01.

²E.A. Fleishman, "Leadership Climate, Human Relation Training, and Supervisory Behavior," Personnel Psychology, (No. 6, 1953), pp. 205-22.

³E.A. Fleishman, F.F. Harris and H.E. Burt, Leadership and Supervision In Industry, (Columbus: Ohio State University, Personnel Research Board, 1955).

significantly lower on the Consideration score than the control group.

The third study by Harris and Fleishman compared a group of supervisors who had attended Central School to a group who had not.¹ The LBDQ was used as a pre and post test for both groups. A year separated the ratings of supervisors by their subordinates. There were no changes in mean scores for Initiating Structure of Consideration. However the correlation between the pre and post test was lower for the experimental group. Apparently the training did "something," but it is impossible to say what it was.

A fourth study by Harris examines the effects of a refresher course.² The only significant change was in the right direction, but in the wrong group. The control group of supervisors was rated significantly lower on Initiating Structure on the post test as compared with the pre test.

Stroud studied the effects of a human relations training program for supervisors at Bell Telephone.³ An experimental group of 103 supervisors was compared to a control group of ninety-one supervisors. Five months after the program,

¹E.F. Harris, and E.A. Fleishman, "Human Relations Training and The Stability of Leadership Patterns," Journal of Applied Psychology, XXXIX (1955), pp. 20-25.

²E.F. Harris, "Measuring Industrial Leadership and Its Implications For Training Supervisors," Dissertation Abstracts, (1958), No. 18, pp. 1513-16.

³P.V. Stroud, "Evaluating A Human Relations Training Program," Personnel, XXXVI, Number 6 (1959), pp. 52-60.

questionnaires were mailed to the superiors of the trainees and to the trainees themselves. The questionnaire consisted of the Consideration scale from the LBDQ and four other items requesting successful and unsuccessful critical incidents relative to trainee interactions with other individuals and interactions with a group. There was no significant difference between the two groups for self-perceived Consideration, but there was a significant difference between the two groups when the superiors described the Consideration of their subordinates.

Miles conducted a study of participants in National Training Laboratory programs, usually called T-group training. Miles used thirty-four high school principals as an experimental group and two groups of principals as controls.¹ Subordinates or associates responded to an open-ended "perceived change measure," the LBDQ, a Group Participation scale, and a large number of other measures. No significant results were found on the LBDQ, the Group Participation scale, or the personality measures. However the perceived change measure was statistically significant. Observers reported the highest perceived change for the experimental group.

The Management Grid approach, according to Blake,

¹M.B. Miles, "Changes During and Following Laboratory Training: A Clinical-Experimental Study," Journal of Applied Behavioral Science, 1, (1965), pp. 215-42.

Mouton, Barnes and Greiner (1964), is a specialized method which attempts to develop both individual and team skills. The first part of the Grid approach is focused on the individual. This is followed with a modified T-group method which is used to teach the participant how the other group members see his managerial style. A series of exercises and case problems which allow each individual to exhibit his management style become the object of T-group type of feedback.

A large-scale study involving 800 managers in a 4,000 member division of a large petroleum corporation is reported by Blake, Mouton, Barnes, and Greiner (1964).¹ The development program lasted for approximately a year. During this time the firm experienced a considerable rise in profits, decrease in costs, and a substantial increase in productivity per employee. These changes in the output and operation of the company are considered to be objective measures of the Grid program's effectiveness. However Campbell suggests the possibility that all or part of these achievements may be attributed to the Hawthorne effect.²

Another of the Grid studies is the one by Blake and Mouton (1966)³ which was done to assess changes in union

¹R.R. Blake, J.S. Mouton, J.S. Barnes, and L.E. Greiner, "Breakthrough in Organization Development," Harvard Business Review, (1964), 42, pp. 133-155.

²Campbell et al., p. 291.

³R.R. Blake, and J.S. Mouton, "Some Effects of Managerial Grid Seminar Training on Union and Management Attitudes Toward Supervision, Journal of Applied Behavioral Science, (1966), 2, pp. 387-400.

and management attitudes toward supervisory practices. The criterion measures were forty attitude items arranged in a forced-choice format. This instrument was used as a before and after test for identical grid programs for thirty-three management personnel and twenty-three union representatives who had staff or management responsibilities.

Five distinct styles or categories were used. The 9,9 style combines maximum concern for both production and people. The 1,1 style reveals minimum concern for production and people. The 5,5 style consists of a balanced concern for both production and people. The 9,1 style contains a maximum concern for production and a minimum concern for people. The 1,9 style is the opposite with a minimum concern for production and a maximum concern for people.

On the pretest the managers had higher scores than union members on the styles with a high production orientation. There was no difference on the 5,5 style groups. Managers showed more change than union members on the post-tests. Both groups tended to move in the same direction. Management increased on 9,9 style while union representatives increased on concern for people. There were no control groups for comparison.

A majority of the studies used to assess development programs used internal criterion measures, usually a particular kind of attitudinal content. This content has been

labeled "consideration" by Fleishman et al (1955), "employee centeredness" by Blake and Mouton (1964), and the "human relations" approach by many others.¹

Beer and Kleisath attempted to determine the effects of the Grid program on managerial behavior.² The before and after criterion measures consisted of a large number of scales, including the LBDQ, which a subordinate used to describe his superior's behavior. Changes in the predicted direction were obtained for thirty-seven out of forty-one scales. However only fourteen of the thirty-seven changes were statistically significant, and some of the differences were very small. In spite of this and the lack of a control group, Campbell, Dunnette, Lawler and Weick contend that the consistency of the results over this large number of scales provides some support for the ability of the Grid program to change behavior.³

Fiedler and his associates continue their work on "situational favorableness," the view that the type of leadership skills required for effective work group performance is a function of certain properties of the work

¹Campbell et al., p. 322.

²M. Beer and S.W. Kleisath, The effects of the managerial grid lab on organizational and leadership dimensions. In S.S. Zalkind (Chm.), Research on the impact of using different laboratory methods for interpersonal and organizational change. Symposium presented at the American Psychological Association, (Washington, D.C., Sept., 1967).

³Campbell et al., p. 291.

group situation. Fiedler is concerned with three such properties:

1. Affective leader-group relation - the interpersonal relationship between the leader and the key member of his group.

2. Task structure - the relative clarity or ambiguity of the task facing the work group.

3. Leader position power - the amount of rewards or sanctions which are at the leader's disposal and which are granted to the position by the organization.

These variables may be placed into one of eight categories. The most favorable category is the one representing good leader-member relations, high task structure and high position power. The category representing the most unfavorable leadership situation is a combination of poor leader-member relations, low task structure and low position power. Leadership situations may be rated by six other categories between these two extremes. This favorableness dimension is viewed as a variable which affects the relationship between characteristics of the leader and productivity of the group.¹

The variable which has perhaps received the most attention in Fiedler's work is the psychological distance the leader perceives between himself and his least preferred

¹F.E. Fiedler, A Theory of Leadership Effectiveness, (New York: McGraw-Hill, 1967), pp. 403-05.

coworker (LPC). This variable is probably analogous to the strength of "consideration" for employees. A leader high on this variable tends to see even a poor coworker in a relatively favorable way. A leader with a low score views his least preferred coworker in a very rejecting way.

Fiedler tested his model on 800 groups. He found that the correlation between LPC and group productivity was negative when the situation was either very favorable or very unfavorable for the leader. The correlation is positive for leader situations of moderate difficulty.

A problem of major proportions not yet discussed in this survey is the problem of selecting the criteria for evaluating leader effectiveness. Halpin supports the position that the ultimate criteria of administrator (leader) effectiveness should be expressed in terms of group or organization achievement, in particular to the changes in the organization's accomplishments that can be attributed to the behavior of the administrator.¹

Further support of this concept comes from Campbell who states that management methods and manager traits need to be studied in terms of the organizational products they yield. Campbell says that this study needs to be built on careful empirical research, showing exactly how personal

¹Halpin, Theory and Research in Administration, p. 50.

traits and job behaviors relate to desired organizational outcomes.¹ Halpin views differences in the organization's products as the ultimate criteria, but he takes the position that the social scientist may be temporarily forced to settle for intermediate criteria that fall short of this mark.² Halpin readily admits that the worth of the intermediate criteria is tenuous until we can demonstrate that it is significantly related to the ultimate criteria.³

Halpin thinks of intermediate criteria as ratings of administrator's effectiveness.⁴ Campbell refers to global estimates of effectiveness which are rankings by superiors, promotions, and salary indexes. He does not advocate dispensing with these global estimates, but suggests that their continued use should be supplemented with systematic behavior observation.⁵

Campbell proposes that it is incomplete to talk only about personal traits leading to managerial success or only about the way good managers manage or only about the products or results of good managing. All three must be considered concurrently. Instead of asking, "Who will be

¹Campbell et al., p. 9.

²Halpin, Theory and Research in Administration, p. 50.

³Ibid., p. 53.

⁴Ibid., p. 51.

⁵Campbell et al., p. 124.

effective?", "How may a person be effective?" or "What does an effective manager produce?", Campbell suggests that we should ask the broader and more complicated question, "What are the varieties or combinations of organizational circumstances, personal characteristics, and behavior patterns that are likely to be perceived as effective managing?"

To predict the occurrence of effective managing demands that all these elements and their interactions be considered.¹

V. SUMMARY

Early attempts to isolate the personal traits which separate leaders from nonleaders were unsuccessful. Too often these early studies were based on the observations and opinions of a single person. In order to overcome this subjective barrier, researchers used other assessment techniques in an effort to identify specific personality characteristics of leaders. The results of this approach were less than satisfying because leaders still could not be differentiated from nonleaders on the basis of their personality patterns.

The shift to studying the behavior of leaders came in the 1940's following World War II. In this era interest was focused on the acts which leaders perform and how often they perform these acts. Large numbers of these acts were

¹Campbell et al., p. 12.

identified and described. Statements of activities which overlapped were eliminated. Groups of these descriptions of behavior were sorted into categories called dimensions. Two of these dimensions, Consideration and Initiating Structure emerged in most of the early leader behavior studies. Even in later studies the concepts seem to be present even if the factors are given other names.

In these initial studies, leaders were identified as persons who were described as having high ratings on Consideration and Initiating Structure. It was apparent that these dimensions were affected by who was doing the rating. Subordinates seemed to select and describe leaders who were rated high on Consideration. Superiors viewed Consideration in a negative way and selected and rated persons who were high on Initiating Structure. Only recent studies have dealt with peer ratings and there is some indication that peers can view the behavior of selected leaders without the distortion caused by the hierarchical relationship.

Leader behavior continues to be important as a research subject. The emphasis however, has shifted to identifying the behaviors of managers who are effective. This objective is prompted by the need of organizations to identify, select, and train effective managers. Presently there is little consensus as to the criterion which should be used in measuring effectiveness. Organizational outputs.

are frequently mentioned as the ultimate criterion, but little research has been done using this measure of effectiveness. At the same time there is no agreement as to what the norms of leader behavior should be for specific managers in certain positions in certain organizations. This limits measures of effectiveness to global measures such as ranking by superior, rating by subordinate, salary, and promotion level.

Measures of Consideration and Initiating Structure have not shown prediction capabilities. This result may be due to the criterion problem mentioned above, or due to the fact that these measures are not refined enough to differentiate along a continuum from effective to ineffective. However multiple studies, using a variety of possible behavior dimensions, reveal leader activities which closely parallel Consideration and Initiating Structure. There seems to be little room for doubt that leaders do perform clusters of behaviors which deal with individual and organizational needs. The successful leader is one who can perform these acts simultaneously and frequently.

CHAPTER III

DESIGN OF THE STUDY

INTRODUCTION

The review of the historical emergence of the three middle managers (business manager, registrar, and dean of students) presented in Chapter I generated the following questions: "Do middle managers in colleges exhibit the kind of leader behavior expected of leaders in general?", "Do business managers, registrars, and deans of students differ from one another in their leader behavior patterns?", "Do middle managers perceive of themselves as they are viewed by their peers?", "Are these middle managers viewed as effective in performing the tasks of their jobs and is their effectiveness related to their leader behavior patterns?" These questions gave the study its general direction as the data was collected, analyzed and interpreted in an effort to provide concrete, specific answers.

Information gathered from the literature review reported in Chapter II indicated that the study of leadership may now be viewed as the behavior of leaders who perform certain tasks in organizational settings in ways that are perceived

to be effective.

Elements of the Problem. The component parts of the problem of the study were identified as the leader behavior of business managers, registrars, and deans of students; the job tasks which each group performs; the organizational context; and a measure of the effectiveness of their performance.

The two basic dimensions of Consideration and Structure were used as the basic leader behavior dimensions. In addition two dimensions, Procurement and Disposal, were included to test whether they will add to understanding of the behavior of middle managers.

It was believed that further investigation would reveal that middle managers do exhibit the same leader behavior dimensions as other leaders; that business managers, registrars, and deans of students would differ between themselves on the leader behavior dimensions; that business managers, registrars, and deans of students would agree with their peers in describing their own leader behavior; and that effective performance would be related in a significant way to the leader behavior dimensions of middle managers.

In addition the background variable of level of responsibility, years spent in present position, salary level, age, location of previous position, and size of institution were examined to determine if they are significantly related to the leader behavior and performance of college middle managers.

Data Sources. Middle managers in public, four-year colleges were selected for the following reasons: (1) The large number of institutions in this category. In the United States in 1968-69 there were 330 public, four-year colleges compared to 94 public universities. (2) The size of the institutions. The schools selected in Region VII ranged in size from 717 for the smallest to 15,387 for the largest. (3) Public institutions were selected rather than private because of the steady increase in the per cent of students enrolled in public institutions in the past ten years.

A review of the administrative positions in the 46 colleges selected for the study indicated that three positions could be found in all of the institutions. Each institution had someone who functioned as a business manager, a registrar, and dean of students. Individuals working in these three positions in the 46 colleges of District VII formed the middle management group to be examined in this study.

Three sub-groups of middle managers were formed by taking the middle managers from the fourteen schools which had usable responses for all three middle manager positions, and adding six middle managers for each of the three positions. (See Appendix F) These supplemental managers were selected from the schools having two usable responses. The institutions having three complete returns were ranked by the size of their student enrollment. The supplemental members for each position were selected by considering the size of

institutions needed in the first fourteen schools in order to give a normal distribution. The enrollment mean of the schools from which the middle managers were selected is 5,646 compared to the enrollment mean for the 46 public, four-year colleges of 5,223. The rationale for structuring the middle manager group in this way is: (1) to include a maximum number of peer reports in the study. Each person from the schools having three total responses has two peer reports which are averaged together to obtain a composite peer score. The single peer report for managers from schools with two responses is used for the supplemental groups. (2) Another reason is to balance the number of managers in each of the subgroups of business managers, registrars, and deans of students. This facilitates the application of the statistical analysis to these groups. (3) A final reason is to have a distribution size which is spread over the entire range of sizes of institutions. Hypothesis eleven will test the effect of size of institution on the behavior of middle managers.

Each middle manager was requested to provide information about his own leader behavior and performance. This information was labeled self-reported data. Also each middle manager was asked to provide information about the leader behavior and performance of two of his co-workers. This information was referred to as peer-reported data. The two sets of peer-reported scores for each individual were averaged together

to form one composite score.

Most leader behavior research has used either superior or subordinate reported information. Peers were used as a data source in an attempt to avoid the perceptual distortion attributable to the difference in hierarchical level in the organization.¹

Instruments Used in Data Collection. A three-part questionnaire was the basic data collection instrument for this study. The first part of the questionnaire asked for personal information concerning job title, number of years worked in present position, location of previous position, age, and salary level. (Appendix A) Two questions asked about the frequency of discussion about job responsibilities with one's superior and the time span of discretion.² These questions were included to indicate the level of responsibility assigned to each middle manager.

The second part of the questionnaire consisted of a modified Leader Behavior Description Questionnaire. (Appendix B) Ten items from each dimension, Consideration and Initiating Structure, were selected by the investigator from the LBDQ - Form XII.³ Two dimensions, Procurement and

¹Halpin, pp. 114-17.

²Elliott Jaques, The Measurement of Responsibility: A Study of Work, Payment and Individual Capacity, (Cambridge: Harvard University Press, 1956), pp. 45-47.

³Leader Behavior Description Questionnaire - Form XII; Originated by staff members of The Ohio State Leadership Studies and revised by Bureau of Business Research; (Columbus: Ohio State University, 1962).

Disposal, were formed with ten items each from Hills' representative function items.¹ This gave a total of forty items with which to describe the four leader behavior dimensions. Each middle manager was requested to rate the frequency which he or his peers exhibited the behavior described by each item by drawing a circle around one of five letters (A B C D E). Each of these letters represented an adverb expressing the frequency of the behavior. The choice of adverbs was as follows: A - Always, B - Often, C - Occasionally D - Seldom, E - Never.

In tallying the responses the frequency adverbs were converted into numbers. Most items were scores A = 5, B = 4, C = 3, D = 2, E = 1. Four items were scored negatively (items 22, 31, 34, 38). The scores for the ten items for each dimension were combined into a total score. This resulted in four leader behavior scores and a performance score for self-reported and peer-reported behavior descriptions. The maximum score possible on a dimension was 50. The scores reported have a range of 20-50.

The third part of the questionnaire was the Performance Analysis Report (PAR) which was designed by the investigator to measure the effectiveness with which each middle manager performed certain job tasks. (Appendix C) Each position

¹R. Jean Hills, "The Representative Function: Neglected Dimension of Leadership Behavior," Administrative Science Quarterly, Volume VIII, No. 1, (1963), pp. 83-101.

had a different list of ten job tasks which were taken from the Dictionary of Occupational Titles.¹ Five responses ranging from low to high effectiveness could be made to each item. Each respondent was asked to rate himself and his two peers on the appropriate Performance Analysis Report. (PAR)

Procedure for Collecting Data. The questionnaire was sent first to fifteen middle managers in five institutions to see if they would respond through the mail. Each questionnaire included a copy of the Personal Sheet, (Appendix A), the LBDQ - Self-Report (Appendix B), and PAR - Self-Report (Appendix D). In addition, copies of the LBDQ - Peer Report (Appendix C), and the PAR - Peer-Report (Appendix D) were included for the two other middle managers in the study in a particular institution. Also included was a letter explaining the purpose of the questionnaire and the study. (Appendix E) A follow-up letter was used. (Appendix E) Middle managers who did not respond received a second copy of the questionnaire with a second letter. (Appendix E)

The expected response for each middle manager was a completed Personal Data Sheet, Self and Peer-reported scores on the four leader behavior dimensions, and Self and Peer-reported PAR scores.

Hypothesis. The information collected by the use of the questionnaire described above was used to test the

¹Dictionary of Occupational Titles.

relations initially identified in the statement of the problem in Chapter I and amplified in the discussion of the elements of the problem in the beginning of this Chapter. These hypotheses consisted of conjectural statements of the relations between variables. Each hypothesis was tested statistically by converting the conjectural statement into a null hypothesis. This was done to determine if the differences between groups varied significantly from chance expectations. The following eleven hypotheses were formulated:

Hypothesis 1. The self-reported leader behavior dimensions do not differ significantly from the peer-reported leader behavior dimensions for business managers, registrars, and deans of students.

Hypothesis 2. Business managers, registrars, and deans of students manifest leader behavior dimensions which vary significantly according to the positions held in the institution.

Hypothesis 3. The leader behavior dimensions of Procurement and Disposal are related significantly to the leader behavior dimensions of Initiating Structure and Consideration for business managers, registrars, and deans of students.

Hypothesis 4. Middle managers manifest leader behavior dimensions which vary significantly according to the level of responsibility indicated by the time span of discretion.¹

¹Jacques, pp. 45-47.

Hypothesis 5. The self-reported performance scores of middle managers do not differ significantly from their peer-reported performance scores.

Hypothesis 6. Middle managers manifest leader behavior dimensions which vary significantly according to their performance scores.

Hypothesis 7. Middle managers manifest leader behavior dimensions which vary significantly according to the number of years spent in present position.

Hypothesis 8. Middle managers manifest leader behavior dimensions which vary significantly according to reported salary level.

Hypothesis 9. Middle managers manifest leader behavior dimensions which vary significantly according to age.

Hypothesis 10. Middle managers manifest leader behavior dimensions which vary significantly according to the location of the previous position held.

Hypothesis 11. Middle managers manifest leader behavior dimensions which vary significantly according to the size of the institution.

Analysis of the Data. Information collected from the questionnaire formed the basis of the analysis. The basic approach was to identify and test the significance of between-groups variance. Kerlinger states that between-groups variance, or experimental variance, is the variance which reflects systematic differences between groups of measures.

due to differences between groups of individuals. Experimental variance is usually thought of as variance resulting from the active manipulation of independent variables by the experimenter.

However Kerlinger contends that between-groups variance may be experimental or nonexperimental. In nonexperimental research the effects of independent variables that have been manipulated, or that have worked in the past, may still be judged by between-groups variance. Kerlinger asserts that the greater the differences between groups, the more an independent variable or variables can be presumed to have operated.¹ A series of comparisons were made of the leader behavior scores for different groups of middle managers.

The first part of the analysis, testing hypothesis one, dealt with the relation between self and peer-reported scores for the four leader behavior dimensions; Initiating Structure, Consideration, Procurement, and Disposal, and the PAR scores. The means of each dimension, as a measure of central tendency, was compared for each middle manager's position in order to determine if significant differences exist between business managers, registrars, and deans of students. The standard deviation was used as a measure of variability. Both the mean and the standard deviation are methods by which to summarize sets of scores so that groups of individuals may

¹Fred N. Kerlinger, Foundations of Behavioral Research, (New York: Holt, Rinehart and Winston, Inc., 1967), pp. 97-99.

be compared to one another. The mean reflects the tendency which a set of scores has to cluster around a central score. The standard deviation reflects the spread of the scores, or the extent to which the scores differ from each other.¹ Differences between the means were tested for significance by using the t-test for related measures.²

The following formula was used:

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

D = difference score between each X and Y pair.
N = number of pairs of scores.

Pearson product-moment correlations were calculated for the self and peer-reported scores by leader dimensions to determine the degree of relation between these sets of scores.³ A major concern of correlation analysis is to find out if and how the variance, or change, in one set of scores is related to the variance in another set of scores. The

¹Ibid., p. 95.

²James L. Bruning and B.L. Kintz, Computational Handbook of Statistics, (Glenview: Scott, Foresman, 1968), p. 13.

³Allen L. Edwards, Statistical Methods for the Behavioral Sciences, (New York: Holt, Rinehart and Winston, 1966), p. 147.

significance of r was tested by using the appropriate t -test.¹

These formulas were used:

$$(a) \quad r = \frac{\sum XY - \frac{(\sum X)(\sum Y)}{N}}{\sqrt{\left(\sum X^2 - \frac{(\sum X)^2}{N}\right) \left(\sum Y^2 - \frac{(\sum Y)^2}{N}\right)}}$$

$$(b) \quad t = r \sqrt{\frac{N - 2}{1 - r^2}}$$

The second hypothesis was tested by examining the between groups variance of middle managers using the three positions, the business manager, the registrar, and the dean of students, as sub-groups. An analysis of variance was calculated for each leader behavior dimension and the PAR score for both self and peer-reported scores. This method is used to test the differences between more than two groups for statistical significance. The total variance is divided into between-groups variance and within-groups variance which is used as an estimate of error. If the ratio between these two kinds of variance is as great or greater than the proper table value, the differences between the groups are significant. For those dimensions having a

¹Bruning, p. 155.

significant F-ratio, independent t-tests were calculated for all possible combinations of means between groups.¹ This decision was made prior to calculating the analysis of variance to keep inspection of the results from influencing the selection of the means to be compared and thus invalidating values of the t-table which are constructed for random comparisons.

The following formula was used:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sum X_1^2 - \frac{(\sum X_1)^2}{N_1} + \sum X_2^2 - \frac{(\sum X_2)^2}{N_2}}{(N_1 + N_2) - 2}} \cdot \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}$$

\bar{X}_1 = the mean of the first group of scores.

\bar{X}_2 = the mean of the second group of scores.

$\sum X_1^2$ = the sum of the squared score values of the first group.

$\sum X_2^2$ = the sum of the squared score values of the second group.

$(\sum X_1)^2$ = the square of the sum of the scores in the first group.

$(\sum X_2)^2$ = the square of the sum of the scores in the second group.

¹Ibid., p. 10.

N^1 = the number of scores in the first group.

N^2 = the number of scores in the second group.

The third hypothesis was tested using Pearson product-moment correlations to identify the degree of concomitant variation between the dimension scores and the PAR scores for both self and peer-reported descriptions of leader behavior. The appropriate t-test was calculated to test the significance of r .

Hypotheses four through eleven was tested by grouping middle managers according to the responses which they will make on the Personal Information Sheet of the questionnaire, or by categories of performance scores. Means were compared to locate significant differences. Variability, spread of the scores, was indicated by the standard deviations. The significance of differences between the means was tested by multiple t-tests for all combinations of groups, depending on the categories used in each response.

SUMMARY

The manner in which the problem was studied has been presented in this chapter. The elements of the problem were identified as the leader behavior of middle managers, job tasks, organizational context, measure of performance effectiveness, and other background variables. The sources

of the data were identified as the business managers, registrars, and deans of students in public four-year colleges who provided self-reported and peer-reported information. Additional variables were examined to determine if they were related to the leader behavior dimensions and performance scores of middle managers. Four leader behavior dimensions were examined. The two basic dimensions, Initiating Structure and Consideration were taken from the LBDQ - XII. Two other dimensions, Procurement and Disposal, were included in the questionnaire to determine if they have the potential for aiding in the understanding of leader behavior.

A complete questionnaire was mailed to each middle manager working in the forty-six colleges of District VII. Each middle manager was asked to provide information about himself and about two peers in his institution. The middle managers having two peer reports (14) formed the base for each position sub-group. To these groups were added six middle managers having one peer report. This provided three sub-groups: twenty business managers, twenty registrars, and twenty deans of students, and a total of sixty middle managers. The size of the institution was a major factor in selecting the middle managers to be included in the analysis. Hypothesis eleven tested the relation of the size of the institution to the leader behavior of middle managers.

The eleven hypotheses dealing with the relations between the various elements of the problem mentioned above

were stated. The methods of testing and analyzing statistically these hypotheses were described. The basic approach was to locate differences and determine if these differences were significant. From these significant differences it was assumed that certain variables were affecting, or had affected, the leader behaviors of middle managers.

CHAPTER IV

ANALYSIS OF DATA

I. INTRODUCTION

This chapter deals with the statistical analysis of the problem of the study as stated in chapter one. Seventeen responses were recorded for each middle manager. The relations between the means of these responses were examined by testing the following eleven hypotheses.

II. TESTING THE HYPOTHESES

Hypothesis 1. The self-reported leader behavior dimensions do not differ significantly from the peer-reported leader behavior dimensions for business managers, registrars, and deans of students. The null form of the hypothesis was tested using the means which are presented in Table 1. The differences between the means of self and peer-reported scores were examined.

The statistical significance of the differences is to be found in Table 2. The t-test for related measures was used to compare the difference between the means of self-reported and peer-reported scores for the leader behavior dimensions.

TABLE 1

Comparison of the Means and Standard Deviations for
Self-Reported and Peer-Reported Leader Behavior
Dimensions and Performance Scores by Position
of Middle Managers

		<u>Business Manager</u>		<u>Registrar</u>		<u>Dean of Students</u>	
		Self	Peer	Self	Peer	Self	Peer
Initiating Structure	M	41.1	39.8	44.8	41.2	40.0	38.5
	SD	4.1	4.9	3.1	3.8	4.9	4.8
Consideration	M	40.1	35.8	42.1	39.3	41.5	36.3
	SD	3.4	5.4	4.1	4.0	3.3	6.0
Procurement	M	38.0	38.5	40.2	38.2	40.0	37.1
	SD	5.5	3.4	3.6	3.7	4.7	5.0
Disposal	M	40.7	38.3	43.6	40.4	42.1	38.4
	SD	4.4	5.2	3.4	3.1	3.1	5.1
Performance	M	38.6	38.3	42.9	41.4	35.2	37.3
	SD	5.5	5.6	4.5	4.7	6.3	6.1

TABLE 2

T Ratios of Difference Between Means of Self-Reported
and Peer-Reported Leader Behavior
Dimensions and Performance Scores
By Position of Middle Managers

	Business Manager	Registrar	Dean of Students
Initiating Structure	1.0143	3.5229 ^b	1.0615
Consideration	3.2894 ^b	2.0834 ^a	3.4709 ^a
Procurement	.3365	1.8933	1.7197
Disposal	1.4062	3.0913 ^a	2.8380 ^a
Performance	.1461	.9195	1.4480

Note: t-test for related measures used.

^aSignificant at the .05 level of confidence.

^bSignificant at the .01 level of confidence.

the performance ratings. This was done for the means between each of the subgroups of middle managers, (business managers, registrars, and deans of students).

Correlations were computed between self and peer-reported scores for each leader behavior dimension and for the performance scores.

Findings. For the 15 pairs of self and peer-reported scores the t-values calculated exceeded the table value of 2.021 at .05 level of confidence with 38 degrees of freedom for four dimensions. Calculated t-values exceeded the table value of 2.704 at .01 level of significance on two dimensions. Six of the fifteen comparisons of mean differences are significant. There the null hypothesis is rejected because of significant differences on the following dimensions: Initiating Structure for registrars, Consideration for business managers, registrars, and deans of students, Disposal for registrars and deans of students. These results indicated that real differences exist between self and peer scores on these dimensions for these middle managers. Examination of the scores indicated that the peer scores are lower in each comparison. Therefore middle managers perceive themselves as rating higher than their peers on these leader behaviors.

The only significant correlation was between the scores on performance for the deans of students. This result indicated that only on this dimension for deans of students was

there a significant degree of relation between the self and peer sets of variables. They covary together. These correlations are presented in Table 3.

Additional Information. The relationships between the means of the leader behavior dimensions and performance scores are indicated for both self and peer-reported scores in Figure 1 for business managers, Figure 2 for registrars, and Figure 3 for deans of students.

Hypothesis 2. Business managers, registrars and deans of students manifest leader behavior dimensions which vary significantly according to the position held in the institution. The null form of this hypothesis stated that none of the F-ratios between the leader behavior dimensions of middle managers would be significant.

An analysis of variance was calculated for all middle managers on self-reported and peer-reported leader behavior dimensions and performance scores. The results are reported in Tables 4 and 5. For the scores having a significant F-ratio, t-tests were computed for all possible combinations of means.

Findings. The F values exceeded the table values of 5.01 at .01 level of confidence with 2/57 degrees of freedom for self-reported Initiating Structure and performance scores. T-tests were calculated to test the significance of the difference between all possible pairs of means on these two dimensions for business managers, registrars, and

TABLE 3

Correlations Between Self-Reported and
Peer-Reported Leader Behavior and
Performance Scores by Position
of Middle Managers

	Business Manager	Registrar	Dean of Students
Initiating Structure	.1958	.1557	.1943
Consideration	.1493	-.0235	.0821
Procurement	-.3258	.1832	.1157
Disposal	-.2636	.0180	.0911
Performance	-.3568	-.1942	.4772 ^a

^ar= .444 is significant at the .05 level.

FIGURE 1. COMPARISON OF MEANS FOR SELF AND PEER-REPORTED LEADER BEHAVIORS FOR BUSINESS MANAGERS.

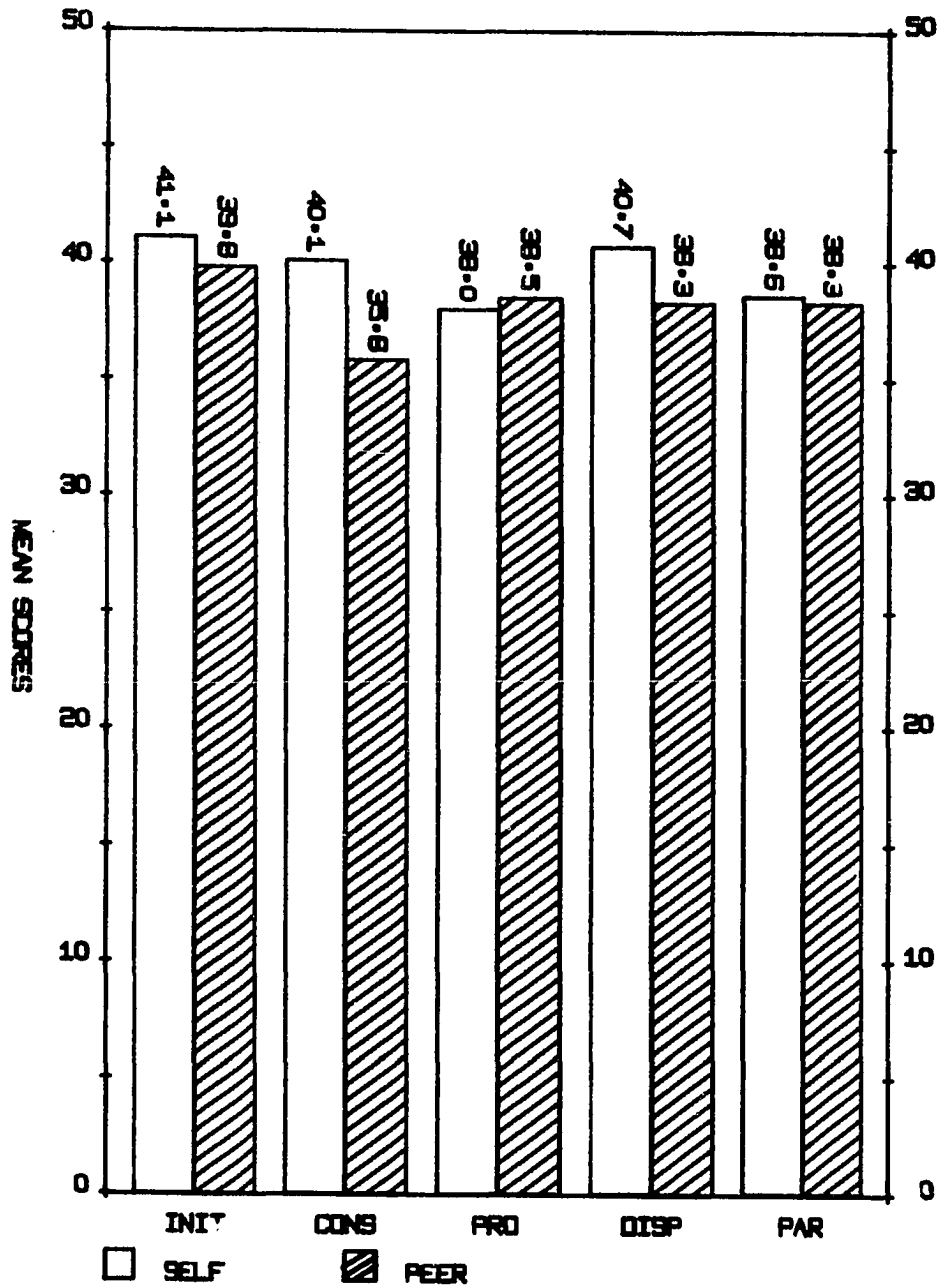


FIGURE 2. COMPARISON OF MEANS FOR SELF-REPORTED AND PEER-REPORTED LEADER BEHAVIORS FOR REGISTRARS.

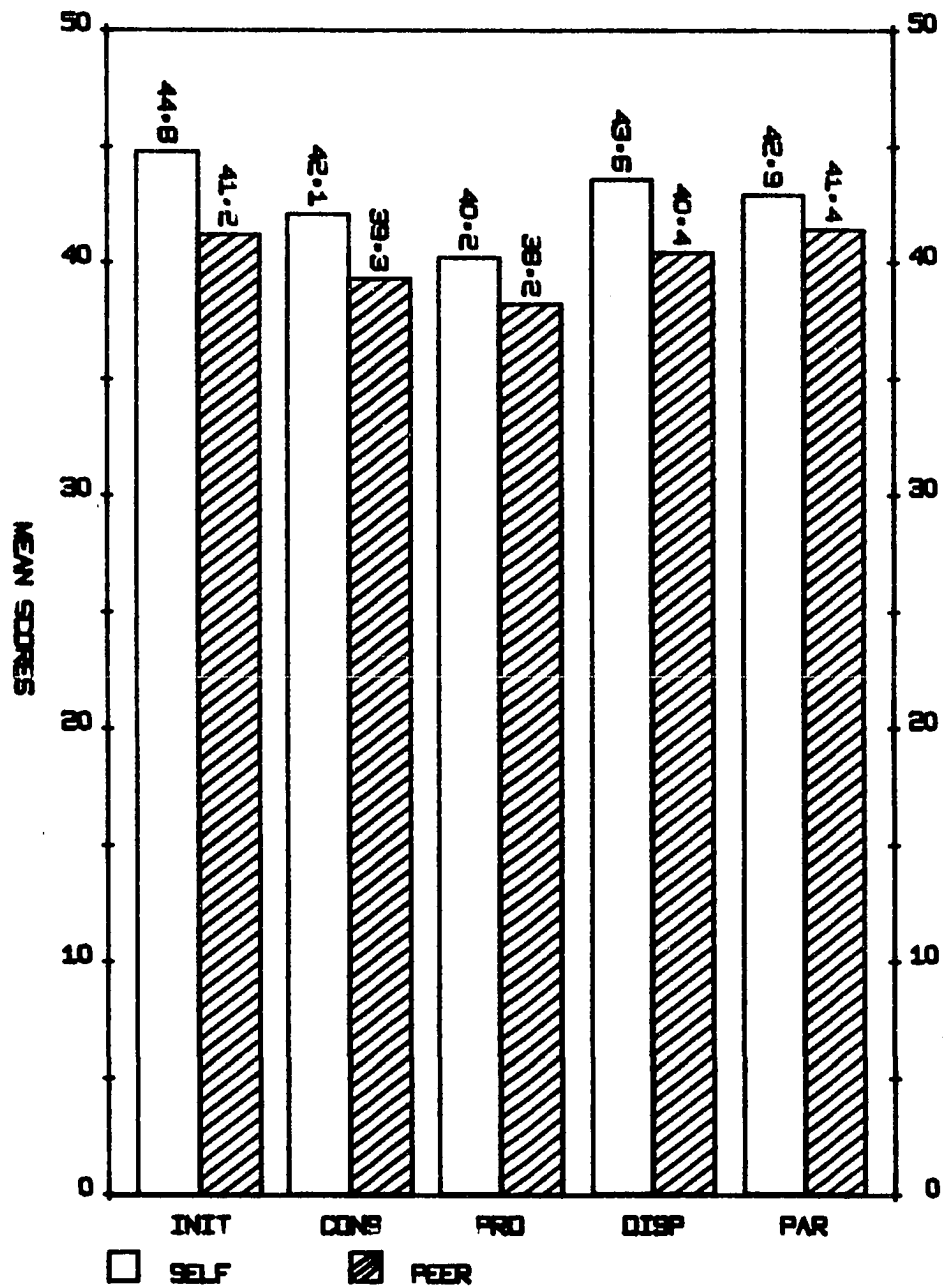


FIGURE 3- COMPARISON OF MEANS FOR SELF AND PEER-REPORTED LEADER BEHAVIORS FOR DEANS OF STUDENTS.

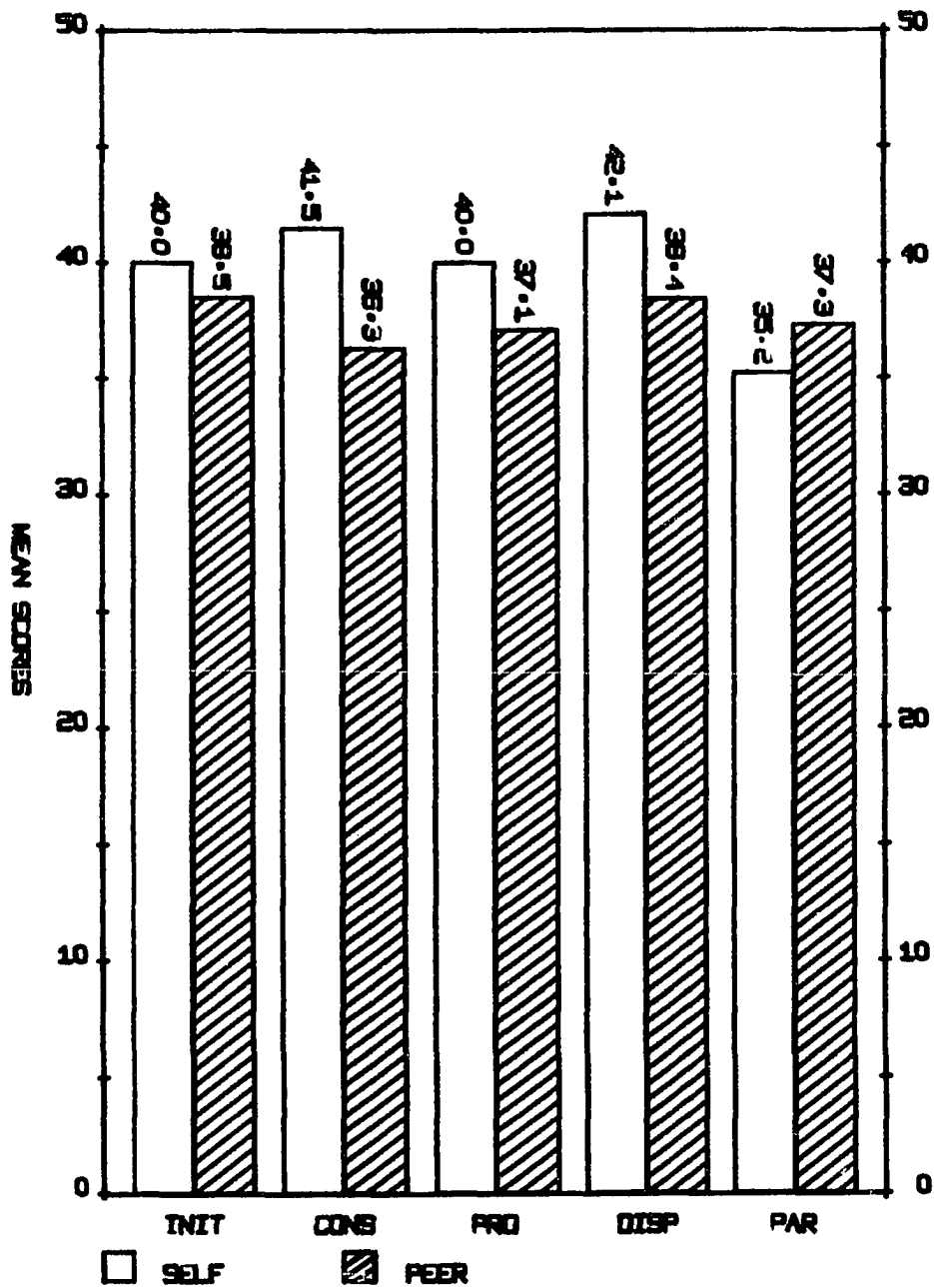


TABLE 4

Analysis of Variance for Self-Reported
Leader Behavior Dimension and
Performance Scores for
Middle Manager
Positions

Dimensions	Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio
Initiating Structure	Between	251.23	2	125.61	7.53 ^a
	Within	950.50	57	16.67	
	Total	1201.73	59		
Consideration	Between	37.73	2	18.86	1.44
	Within	744.45	57	13.06	
	Total	782.18	59		
Procurement	Between	51.73	2	25.86	1.18
	Within	1248.45	57	21.90	
	Total	1300.18	59		
Disposal	Between	81.29	2	40.64	3.00
	Within	770.10	57	13.51	
	Total	851.40	59		
Performance	Between	587.62	2	293.81	9.85 ^a
	Within	1698.56	57	29.79	
	Total	2286.18	59		

^aSignificant at .01 level of confidence.

TABLE 5

Analysis of Variance for Peer-Reported
Leader Behavior Dimension and
Performance Scores for
Middle Manager
Positions

Dimensions	Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio
Initiating Structure	Between	70.23	2	35.11	1.70
	Within	1170.75	57	20.53	
	Total	1240.98	59		
Consideration	Between	147.70	2	73.85	2.72
	Within	1545.95	57	27.12	
	Total	1693.65	59		
Procurement	Between	22.90	2	11.45	0.67
	Within	964.50	57	16.92	
	Total	987.40	59		
Disposal	Between	56.12	2	28.06	1.33
	Within	1193.81	57	20.94	
	Total	1249.93	59		
Performance	Between	186.23	2	93.11	3.05
	Within	1736.75	57	30.46	
	Total	1922.98	59		

deans of students. The computed value exceeded the table value of 2.021 at the .05 level of confidence for one of the comparisons. The table value of 2.704 was exceeded by the calculated value at the .01 level of confidence on three of the comparisons. Four comparisons of differences between the means indicated significance. The null hypothesis is rejected. The results indicated that significant differences were present between the three groups of middle managers on Initiating Structure and performance. T-tests revealed that on self-reported behavior the registrars were significantly higher in Initiating Structure and performance than either the business managers or deans of students. The original hypothesis is supported. Business managers, registrars and deans of students do manifest leader behavior dimensions which vary significantly according to the position held in the institution. The results of the tests of significance of differences are reported in Table 6.

Hypothesis 3. The leader behavior dimensions of Procurement and Disposal relate significantly to the leader behavior dimensions of Initiating Structure and Consideration for business managers, registrars, and deans of students. The null hypothesis stated that r was not significant between Procurement-Disposal and Initiating Structure-Consideration.

Correlations were calculated by middle manager positions between the leader behavior dimensions Initiating Structure--Consideration, and Procurement--Disposal, using both self

TABLE 6

T-test of Significance for Difference Between
Means of Leader Behavior Dimensions
for Groups Used in the
Analysis of Variance

Dimension	Business Manager	Registrar	Dean of Students	T-ratio
Self-Initiating Structure	41.1	44.8		3.170 ^b
	41.1		40.0	.811
		44.8	40.0	3.714 ^b
Self-PAR	38.6	42.9		2.683 ^a
	38.6		35.2	1.826
		42.9	35.2	4.446 ^b

^aSignificant at .05 level of confidence.

^bSignificant at .01 level of confidence.

and peer-reported scores.

Findings. Calculated values for r exceeded the table value of .444 at the .05 level of confidence on six correlations. The table value of .561 for r at the .01 level of confidence was exceeded by calculated values thirteen times. Table 7 presents the results. T-values calculated for these correlations were found to exceed the table value of 2.2021 at .05 level of confidence for four of the correlations. Calculated t-values exceeded the table values of 2.704 at .01 level of confidence with 38 degrees of freedom for fifteen of the correlations.

The results are presented in Table 8. Procurement failed to relate significantly with Initiating Structure for registrars on self-reported behavior. It failed to relate significantly with Consideration for business managers on self-reported behavior, and for registrars on self and peer-reported behavior. In four comparisons out of twelve, Procurement does not significantly relate to Initiating Structure and Consideration. Only one time did Disposal fail to relate to Consideration for registrars. The remaining 19 comparisons were significant. The null hypothesis that there is no significant r between the dimensions of Procurement-Disposal and Initiating Structure-Consideration is rejected. The original hypothesis that the leader behavior dimensions of Procurement and Disposal relate significantly to the leader behavior dimensions of Initiating

TABLE 7

Correlations Between Initiating and
Consideration Dimensions and
Procurement and Disposal
Dimensions by Positions

Dimensions	<u>Procurement</u>		<u>Disposal</u>	
	Self	Peer	Self	Peer
Initiating Structure				
Business Manager	.4815 ^a	.6444 ^b	.8457 ^b	.6368 ^b
Registrar	.1726	.6590 ^b	.6566 ^b	.6296 ^b
Dean of Students	.6598 ^b	.7752 ^b	.6751 ^b	.7859 ^b
Consideration				
Business Manager	-.0565	.4539 ^a	.4648 ^a	.7757 ^b
Registrar	.0100	.3896	.4929 ^a	.4128
Dean of Students	.5546 ^a	.7123 ^b	.5474 ^a	.8680 ^b

^aSignificant at .05 level of confidence.

^bSignificant at .01 level of confidence.

TABLE 8

Significance of Correlations Between
Initiating and Consideration Dimensions
and Procurement and Disposal
Dimensions by Positions

Dimensions	<u>Procurement</u>		<u>Disposal</u>	
	Self	Peer	Self	Peer
Initiating Structure				
Business Manager	2.331 ^a	3.576 ^b	6.724 ^b	3.505 ^b
Registrar	.7437	3.718 ^b	3.694 ^b	3.438 ^b
Dean of Students	3.725 ^b	5.207 ^b	3.883 ^b	5.393 ^b
Consideration				
Business Manager	-.240	2.162 ^a	2.227 ^a	5.216 ^b
Registrar	.043	1.795	2.404 ^a	1.923
Dean of Students	2.828 ^b	4.307 ^b	2.776 ^b	7.418 ^b

^aSignificant at .05 level of confidence.

^bSignificant at .01 level of confidence.

Structure and Consideration for business managers, registrars, and deans of students is supported. These results suggest that these dimensions are not independent of one another and are overlapping in their measures of leader behavior.

Hypothesis 4. Middle managers manifest leader behavior dimensions which vary significantly according to level of responsibility indicated by time span of discretion. The null hypothesis stated that the means of self and peer-reported leader behavior dimension and performance scores do not differ significantly and that the means of the groups are equal.

Findings. The means and standard deviations were calculated for the responses of three groups of middle managers. The first group indicated that they shared information with their superiors within a few hours about any independent decisions which they had made. The second group indicated that they usually waited three or four days before sharing information concerning a decision made at their discretion. The third group indicated that they waited a couple of weeks or longer before talking with their superior about an independent decision. The calculated values did not exceed the table values required for 48, 39 and 27 degrees of freedom.

There appeared to be no relation between the leader behaviors of middle managers and the amount of time which expired before they shared independent decisions made in their work with their superiors. This variable comes from

a theory which states that the more time that passes between the making of a decision and the sharing of the decision with one's superior, the more responsibility has been delegated to the subordinate..

The lack of any significant difference between the means of the three groups of middle managers permitted the acceptance of the null hypothesis. The original hypothesis is not supported by the findings of the analysis.

Hypothesis 5. The self-reported performance scores of business managers, registrars, and deans of students do not differ significantly from the peer-reported performance scores. The null form of this hypothesis stated that the means will be equal between self and peer-reported performance scores for business managers, registrars, and deans of students, and middle managers as a whole.

The means for performance scores were calculated for each of the three positions; business manager, registrar, and deans of students, and for all three groups combined. The difference between the means of self-reported and peer-reported scores was calculated using t-tests for related measures.

Findings. The calculated t values failed in each instance to exceed the table value of 2.021 at the .05 level of confidence with 38 degrees of freedom. Information from Table 9 shows that there is no significant difference in the self and peer-reported scores for each middle manager

TABLE 9

Comparison of Means of Self-Reported and
Peer-Reported Performance Scores
For Middle Managers by Position

Position	<u>Self-Reported</u>		<u>Peer-Reported</u>		<u>T-ratio</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Business Managers	38.6	5.5	38.3	5.7	.1461
Registrars	42.9	4.8	41.4	4.7	.9195
Deans of Students	35.2	6.3	37.3	6.2	1.4448
All Middle Managers	38.9	6.2	39.0	5.7	.1014

position, even though there are definite differences in level of performance indicated. None of the tests for significance of difference between means were significant. The null hypothesis is accepted and the original hypothesis is supported. Examination of the scores for deans of students shows that they are lower on mean scores for both the self-reported and peer-reported scores. Also noticeable is the larger standard deviation for both self and peer-reported scores. This contributes to the variability in the standard deviations for the total group.

Hypothesis 6. Middle managers manifest leader behavior dimensions which vary significantly according to performance scores. The null form of this hypothesis stated that the means of all leader behavior and performance scores would be equal for groups of middle managers ranked by self-reported performance scores into the quartiles.

The first quartile (lowest performance scores) was compared to the fourth quartile (highest performance scores) to determine if there would be significant differences between the means of the other dimensions. Results reported in Table 10. See Figure 4.

Findings. The difference between the means of the performance scores was very large and significant. The t values of the differences between the means of the dimension scores exceeded the table value of 2.750 at .01 level of confidence with 28 degrees of freedom for all four

TABLE 10

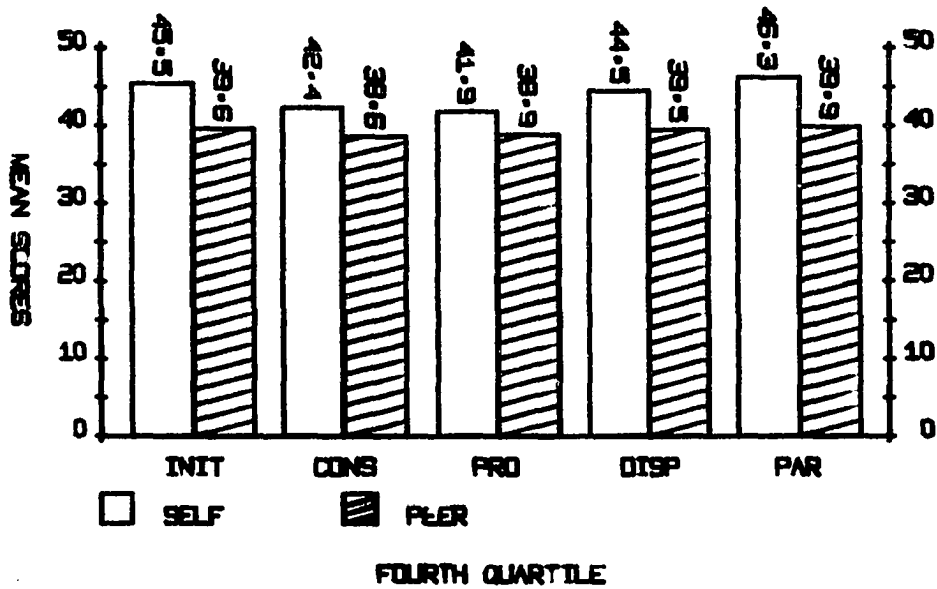
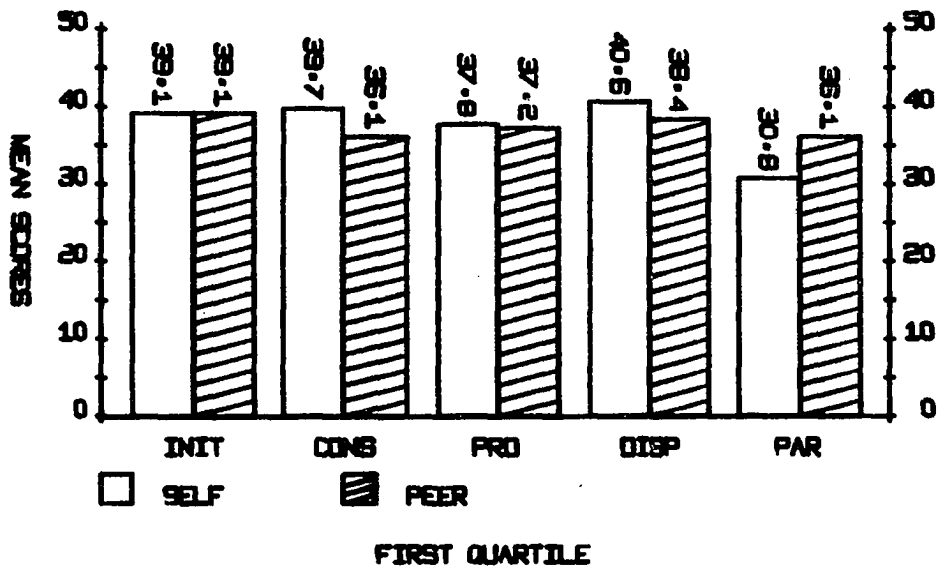
Comparison of Self-Reported Means of the First and Fourth
 Quartile Scores of Leader Behavior Dimensions and
 Performance Scores When Middle Managers are
 Grouped by Performance Scores

		First Quartile	Fourth Quartile	T-ratio
<u>Self-Reported</u>				
Initiating Structure	M	39.1	45.5	4.617 ^b
	SD	4.9	2.1	
Consideration	M	39.7	42.4	2.997 ^b
	SD	2.8	4.3	
Procurement	M	37.8	41.9	3.214 ^b
	SD	3.9	3.1	
Disposal	M	40.6	44.5	3.577 ^b
	SD	2.9	2.9	
Performance	M	30.8	46.3	14.418 ^b
	SD	3.3	2.5	

^aSignificant at .05 level of confidence.

^bSignificant at .01 level of confidence.

FIGURE 4. COMPARISON OF THE MEANS OF SCORES OF MIDDLE MANAGERS IN THE FIRST AND FOURTH QUARTILES WHEN GROUPED BY SELF-REPORTED PERFORMANCE SCORES.



self-reported leader behavior dimensions of Initiating Structure, Consideration, Procurement and Disposal. The presence of significant differences between the means of leader dimensions and performance scores for self-reported behavior warranted the rejection of the null hypothesis. The original hypothesis that middle managers manifest leader behavior dimensions which vary significantly according to performance scores is supported.

The peer-reported performance scores were ranked from low to high and divided into quartiles. See Table 11 and Figure 5. The first quartile (lowest performance scores) was compared to the fourth quartile (highest performance scores). The difference between the means of the performance scores was significant as was the difference between the means of the other four leader behavior dimensions. The results are reported in Table 11. The presence of significant differences between the means indicated that the null hypothesis should be rejected. The original hypothesis is supported.

Hypothesis 7. Middle managers manifest leader behavior dimensions which vary significantly according to number of years spent in present position. The hypothesis was stated in the null form by saying that the means of all leader behavior scores of middle managers grouped by the number of years spent in present position would be equal.

TABLE 11

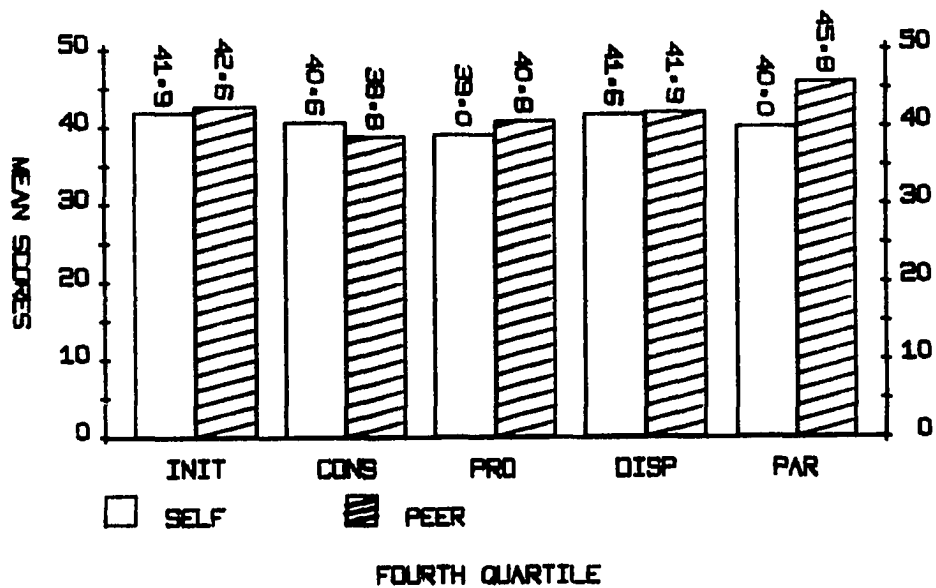
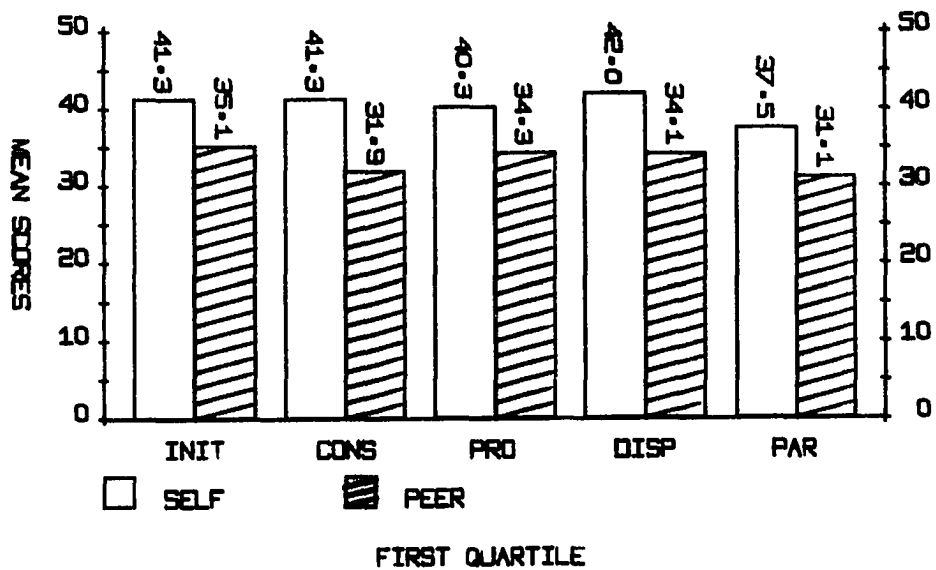
Comparison of Peer-Reported Means of the First and Fourth
 Quartile Scores of Leader Behavior Dimensions and
 Performance Scores When Middle Managers are
 Grouped by Performance Scores

		First Quartile	Fourth Quartile	T-ratio
<u>Peer-Reported</u>				
Initiating Structure	M	35.1	42.6	4.841 ^b
	SD	4.6	3.8	
Consideration	M	31.9	38.8	4.555 ^b
	SD	4.1	4.1	
Procurement	M	34.3	40.8	5.067 ^b
	SD	3.6	3.5	
Disposal	M	34.1	41.9	7.863 ^b
	SD	2.9	2.5	
Performance	M	31.1	45.8	14.010 ^b
	SD	3.3	2.3	

^aSignificant at .05 level of confidence.

^bSignificant at .01 level of confidence.

FIGURE 5. COMPARISON OF THE MEANS OF SCORES OF MIDDLE MANAGERS IN THE FIRST AND FOURTH QUARTILES WHEN GROUPED BY PEER-REPORTED PERFORMANCE SCORES.



Findings. Middle managers were divided into four groups depending upon how long they had worked in their present position. The following number of managers were in each category: Under 2 years - 16, 3-10 years - 24, 11-20 years - 9, over 20 years - 11. The five self-reported and peer-reported scores were compared between all combinations of these four categories. No significant differences were identified between the means of any of these groups.

The null hypothesis was accepted. The original hypothesis that middle managers manifest leader behavior dimensions which vary significantly according to number of years spent in present position was not supported. The number of years accumulated in a job has no significant effect upon the middle manager's performance of that job.

Hypothesis 8. Middle managers manifest leader behavior dimensions which vary significantly according to reported salary level. This hypothesis in the null form stated that the means of the leader behavior dimension and performance score would be equal when middle managers are grouped and compared according to reported salary level.

This hypothesis was tested by grouping middle managers by their self-reported salary level. Middle managers could respond on the questionnaire to eight salary categories which began with under 8,000 and increased in 2,000 increments to the last category of over 20,000. Since there was no response in the category of under 8,000, and only two

responses in the next level, the first three levels were combined into one category. This reduced the number of categories to six. The salary levels and the number in each category are as follows: 9,000-12,000 - 7, 13,000-14,000 - 11, 15,000-16,000 - 10, 17,000-18,000 - 9, 19,000-20,000 - 9, over 20,000 - 14. The means and standard deviations were computed for each of the six groups. T-tests for the significance of difference were calculated for the means of the ten behavior dimensions for all possible combinations of salary levels. No significant difference was found.

Therefore the null hypothesis that the means would be equal on leader behavior dimension and performance scores is accepted. The original hypothesis is not supported because middle managers do not exhibit leader behavior dimensions which vary significantly according to reported salary level.

Hypothesis 2. Middle managers manifest leader behavior dimensions which vary significantly according to age. The null form of this hypothesis stated that the means of all leader behavior dimensions and performance scores would be equal for middle managers when they are grouped according to age.

Respondents were asked to indicate their age in one of the following three age categories: Under 35, 35-50 years, and over 50 years. There were 5 middle managers in category one, 36 in category two, and 19 in category three.

The means for self and peer-reported leader behavior dimensions and performance scores were calculated. Results reported in Table 12. All possible combinations of the means for these three groups were compared. T-tests of the significance of the difference between means were calculated.

Findings. In the self-reported scores the managers in the middle age bracket of 35-50 were the highest on Consideration. The mean score of 42.2 is significantly different from the means of the other two age categories. Managers in the older bracket of over 50 are highest on Initiating Structure, with a mean score of 43.0. However the difference between this score and the other two scores is not significant.

In the peer-reported scores, managers in the age bracket of over 50 were lower on Consideration than managers in the 35-50 group. The difference was tested using the table value of 2.660 at the .01 level of confidence with 54 degrees of freedom. The difference is significant. This is the one significant difference in the peer-reported scores for the three groups of middle managers.

The presence of the three significant differences reported above necessitates the rejection of the null hypothesis. The original hypothesis that middle managers manifest leader behavior dimensions which vary significantly according to age is supported. See Figures 6 and 7.

TABLE 12

Comparison of Means and Standard Deviations
For Leader Behavior Dimension and
Performance Scores by Age
Of Middle Managers

		1 Under 35 N=5	2 35-50 N=36	3 Over 50 N=19
<u>Self-Reported</u>				
Initiating Structure	M	39.3	41.5	43.0
	SD	9.9	3.8	4.1
Consideration	M	38.0	42.2	40.3
	SD	4.5	3.4	3.4
Procurement	M	36.3	38.8	40.3
	SD	6.7	5.0	3.7
Disposal	M	41.0	41.8	42.8
	SD	6.7	3.7	3.5
Performance	M	37.0	38.1	40.4
	SD	11.4	5.3	6.3
<u>Peer-Reported</u>				
Initiating Structure	M	36.8	40.1	39.8
	SD	3.2	3.7	5.7
Consideration	M	36.0	39.2	34.4
	SD	6.7	3.7	6.0
Procurement	M	35.0	38.0	38.2
	SD	4.2	4.2	3.8
Disposal	M	37.5	40.0	37.9
	SD	5.1	3.8	5.3
Performance	M	34.8	39.1	39.5
	SD	7.8	4.7	6.6

FIGURE 6. COMPARISON OF MEANS OF SCORES BY AGE OF MIDDLE MANAGERS--UNDER 35 TO 35-50 YEARS.

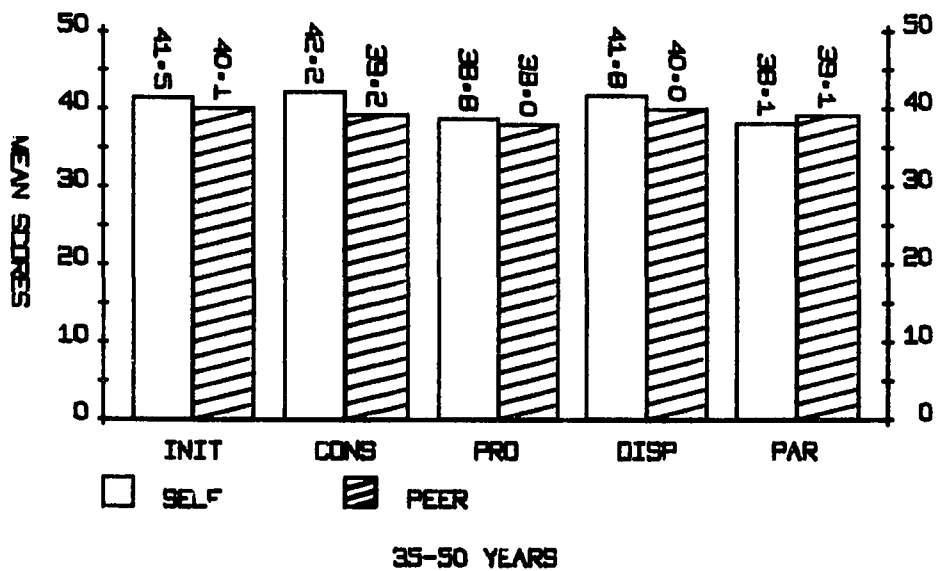
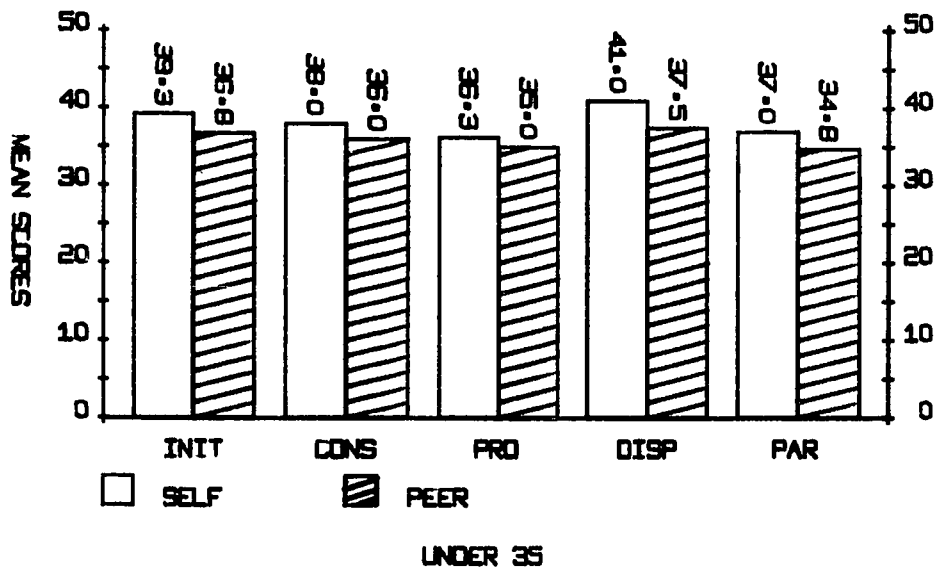
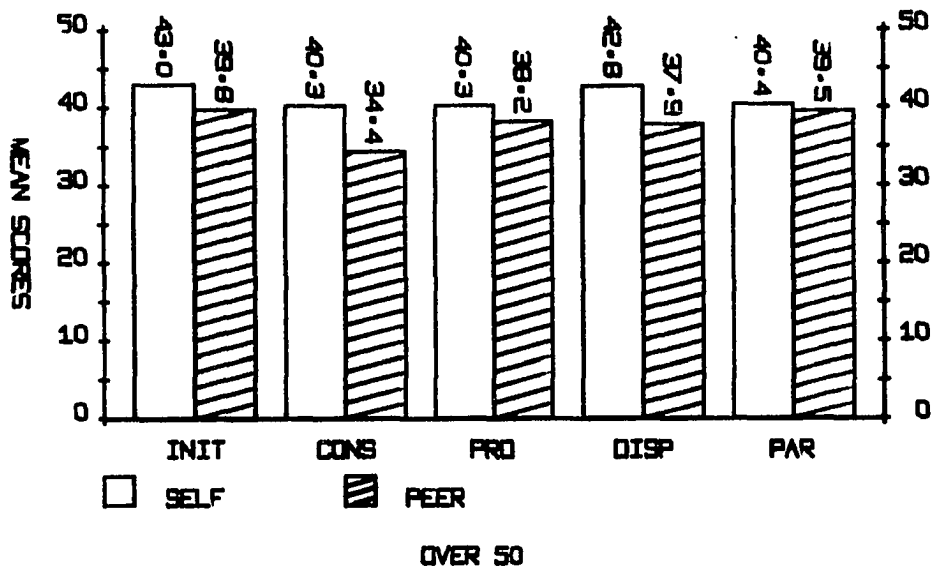
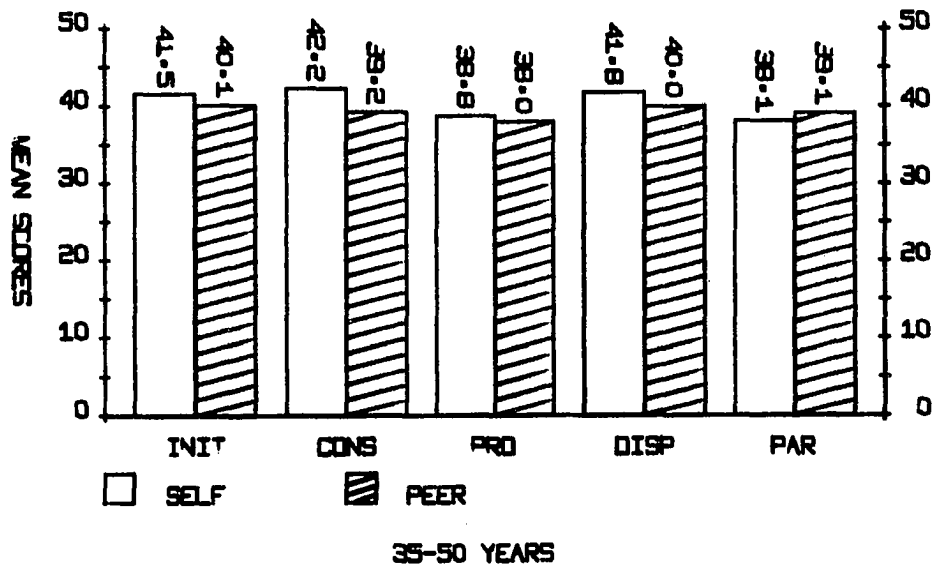


FIGURE 7. COMPARISON OF MEANS OF SCORES BY AGE OF MIDDLE MANAGERS--35-50 YEARS TO OVER 50.



Middle-aged managers describe themselves as engaging in Consideration behaviors more frequently than those younger or older than themselves. Peers describe managers in the over 50 group as exhibiting Consideration less frequently than either of the other two groups.

Hypothesis 10. Middle managers manifest leader behavior dimensions which vary significantly according to the location of the previous position held. The null form of this hypothesis stated that the means of all leader behavior dimensions and performance scores would be equal when middle managers were grouped according to the location of the previous position held.

Manager's scores were compared after they were grouped into four categories which represented location of their previous job. Results reported in Table 13. The number of middle managers in each category is the following: (1) at this institution - 32, (2) another college - 12, (3) public school - 10, (4) business, government or military - 6.

Findings: The means of these four groups were compared and tested for significance of difference. Managers who came to their present position from business, government or the military do vary significantly from managers who were selected from within the institution. Managers from this outside group describe themselves lower on Procurement and Disposal than managers coming from within the institution. The calculated values for these four dimensions do exceed

TABLE 13

Comparison of Means and Standard Deviations for
Leader Behavior Dimensions and Performance Scores
When Middle Managers Are Grouped by
Location of Previous Position

		(1) This Institution	(2) Another College	(3) Public School	(4) Business, Gov. or Military
<u>Self-Reported</u>					
Initiating Structure	M	42.3	42.2	42.0	39.2
	SD	4.7	3.9	3.7	5.5
Consideration	M	41.2	42.7	41.0	38.5
	SD	3.4	3.8	3.6	3.5
Procurement	M	40.2	39.2	38.6	35.0
	SD	5.2	3.0	3.9	4.0
Disposal	M	42.8	42.5	42.0	37.8
	SD	3.3	3.5	4.1	4.8
Performance	M	39.7	36.8	40.0	37.3
	SD	6.4	4.0	8.2	5.8
<u>Peer-Reported</u>					
Initiating Structure	M	39.8	39.8	40.1	39.5
	SD	5.1	3.7	5.4	2.7
Consideration	M	35.5	38.6	38.2	41.3
	SD	5.8	4.2	4.8	1.8
Procurement	M	37.4	37.2	39.2	39.8
	SD	4.6	3.4	3.6	2.6
Disposal	M	38.1	39.4	39.4	42.5
	SD	5.1	3.8	4.3	1.9
Performance	M	38.5	39.2	38.2	42.2
	SD	5.9	4.2	8.0	2.7

the table value of 2.042 at .05 level of confidence with 36 degrees of freedom.

Managers selected from group 2, (another college), describe themselves higher on Consideration, Procurement and Disposal than the managers from business, government and the military. The computed values do exceed the table value of 2.110 at .05 level of confidence for 17 degrees of freedom. Peer-reported behavior indicates no significant difference between these two groups.

The presence of significant differences between group 1, (at this institution), and group 4, (business, government or military), on the self-reported dimensions of Procurement and Disposal and on the peer-reported dimensions of Consideration and Disposal indicated the rejection of the null hypothesis. Also the presence of significant differences between group 2 (another college), and group 4, (business, government or military), on the self-reported dimensions of Consideration, Procurement and Disposal indicated the rejection of the null hypothesis. The original hypothesis that middle managers manifest leader behavior dimensions which vary significantly according to the location of the previous position held is supported.

Additional Information. Figures 8 and 9 graphically depict the relations between the means of the dimensions for group 1 (at this institution), and group 4, (business, government or military), and for group 2 (another college),

FIGURE 8- COMPARISON OF MEANS OF SCORES FOR MIDDLE MANAGERS GROUPED BY LOCATION OF PREVIOUS POSITION.

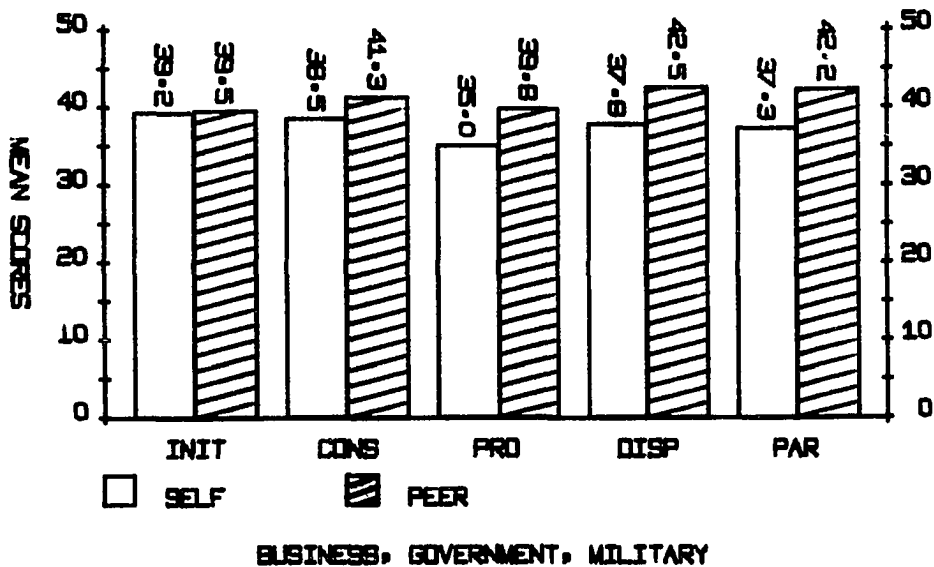
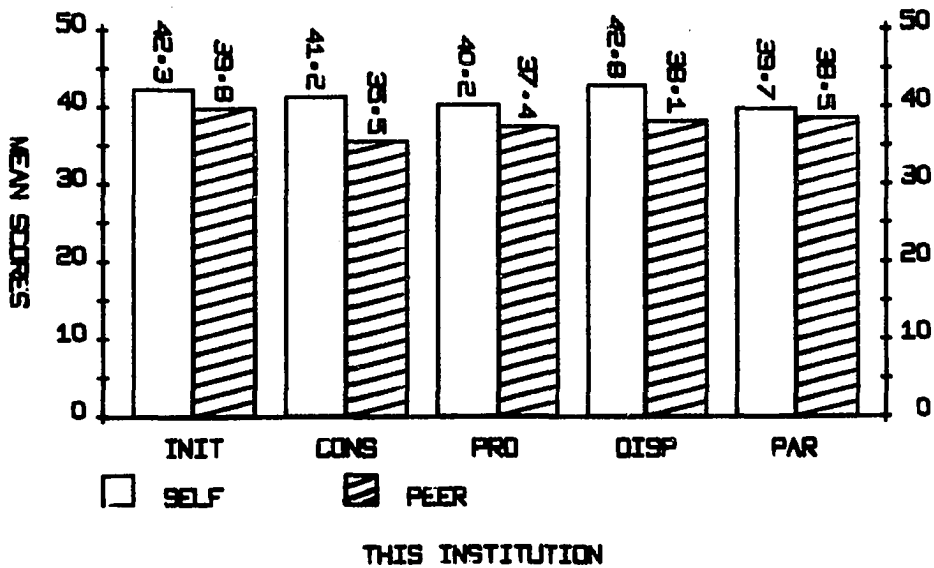
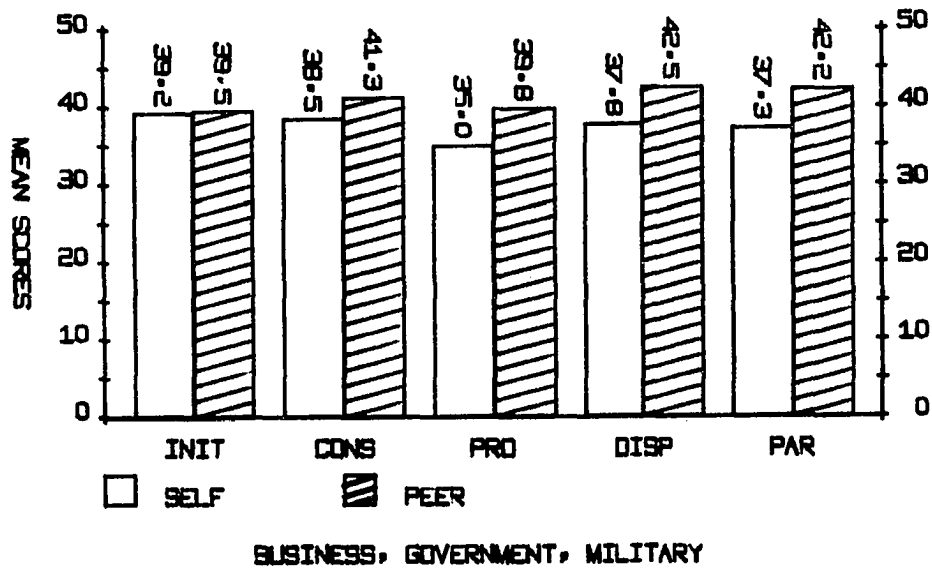
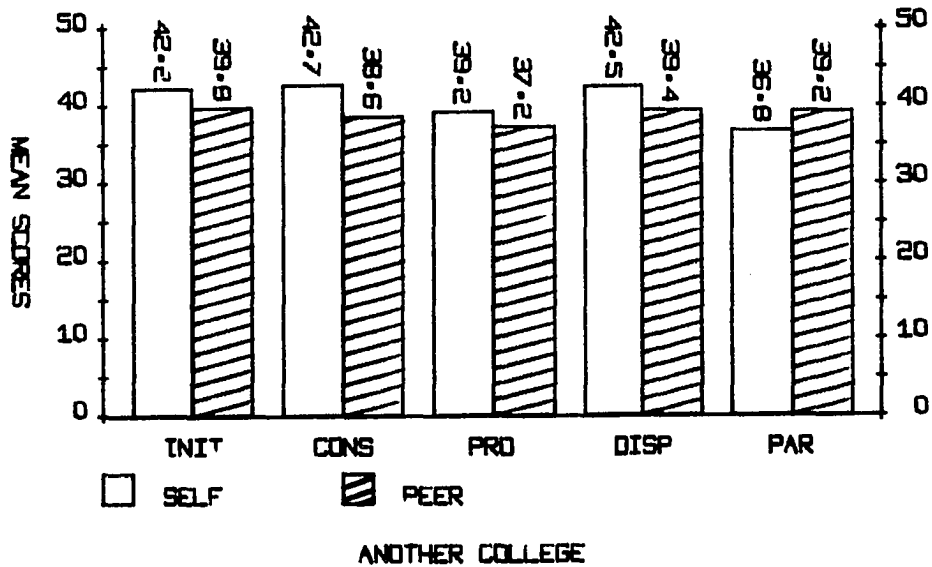


FIGURE 9. COMPARISON OF MEANS OF SCORES FOR MIDDLE MANAGERS GROUPED BY LOCATION OF PREVIOUS POSITION.



when compared to group 4 (business, government or military).

Hypothesis 11. Middle managers manifest leader behavior dimensions which vary significantly according to the size of the institution. The null form of this hypothesis stated that the means of all leader behavior dimensions are equal for groups of middle managers classified by the size of the institution.

This hypothesis was tested by ranking the institutions (where the middle managers are employed) from small to large by size of student enrollment. The smallest of the 24 schools had an enrollment of 1,032 and the largest was 15,387. The schools were divided into quartiles with 6 schools in each quartile. The means of the enrollments of the institutions are as follows: quartile 1 - 1,926, quartile 2 - 3,900, quartile 3 - 6,020, quartile 4 - 11,187.

The means and standard deviations were calculated for each of the leader behavior dimensions and the performance scores. Results are reported in Table 14. Each group was compared to all other groups and a t-test for the significance of the difference between means was computed for each dimension. See Figures 10, 11 and 12.

Findings. The difference in means is significant when scores of managers in quartile 1 are compared with manager's scores in quartile 2. Managers in the first quartile report themselves, and are reported by their peers, to be significantly lower on the Consideration dimension than

TABLE 14

Comparison of the Means of Leader Behavior Dimension
and Performance Scores for Middle Managers
Grouped by Quartiles According to
Size of Institution

			Quartile			
			First	Second	Third	Fourth
<u>Self-Reported</u>						
Initiating Structure	M	41.4		42.9	41.9	41.6
	SD	6.2		4.0	3.5	4.0
Consideration	M	40.1		43.1	41.0	40.6
	SD	2.9		3.4	3.9	3.8
Procurement	M	38.8		38.4	39.1	40.6
	SD	5.4		5.6	3.6	3.5
Disposal	M	41.4		43.4	42.1	41.5
	SD	4.8		3.4	3.5	3.3
Performance	M	37.6		40.5	39.3	38.2
	SD	7.0		6.7	5.8	5.4
<u>Peer-Reported</u>						
Initiating Structure	M	39.5		40.4	41.1	38.2
	SD	4.4		3.7	4.7	5.5
Consideration	M	35.3		39.8	37.6	35.9
	SD	5.3		4.1	5.0	6.2
Procurement	M	37.4		38.9	38.9	36.3
	SD	5.0		2.9	4.5	3.2
Disposal	M	37.9		41.3	39.6	37.2
	SD	4.9		3.4	4.7	4.5
Performance	M	38.8		39.9	40.9	36.1
	SD	7.4		3.4	5.8	4.7

FIGURE 10. COMPARISON OF THE MEANS OF SCORES OF MIDDLE MANAGERS IN THE FIRST AND SECOND QUANTILES WHEN GROUPED BY SIZE OF INSTITUTION.

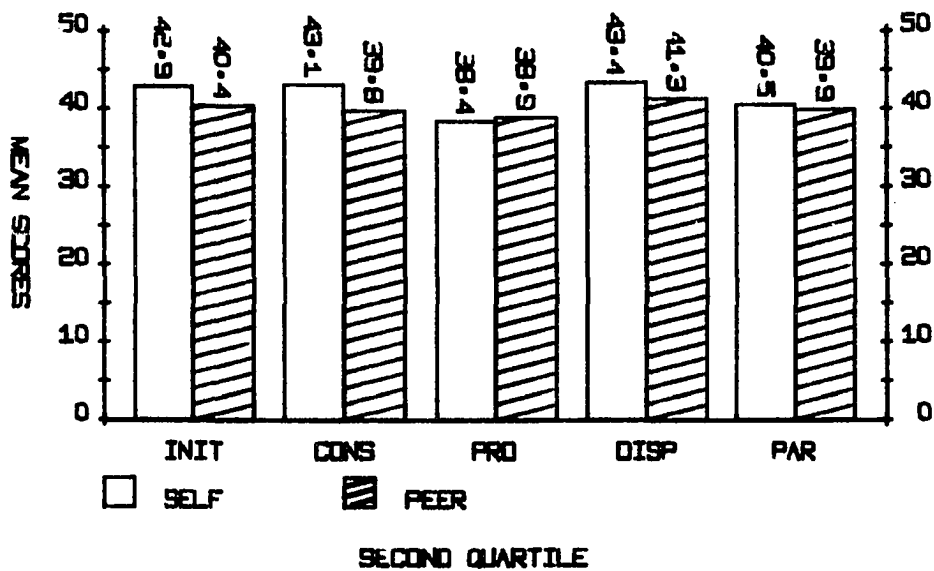
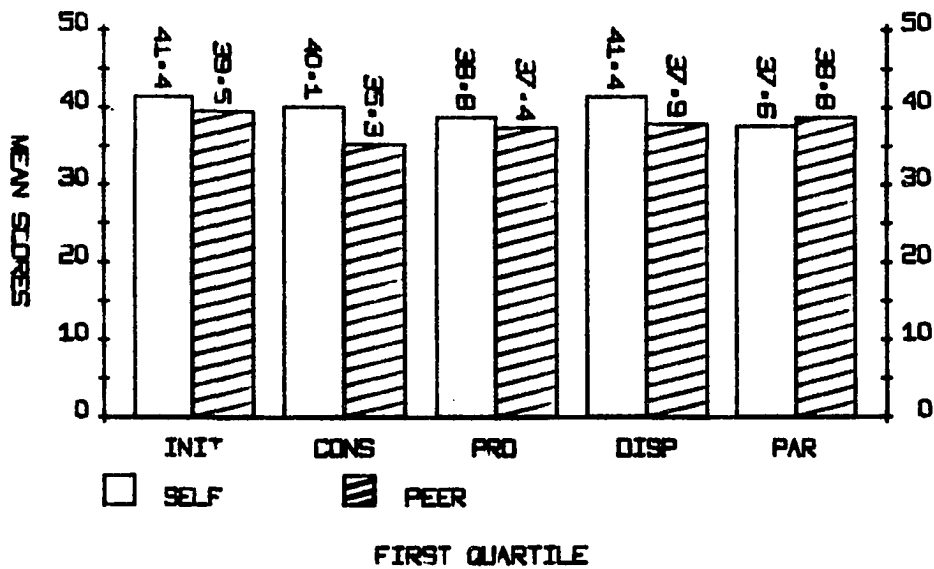


FIGURE 11.- COMPARISON OF THE MEANS OF SCORES OF MIDDLE MANAGERS IN THE SECOND AND FOURTH QUARTILES WHEN GROUPED BY SIZE OF INSTITUTION.

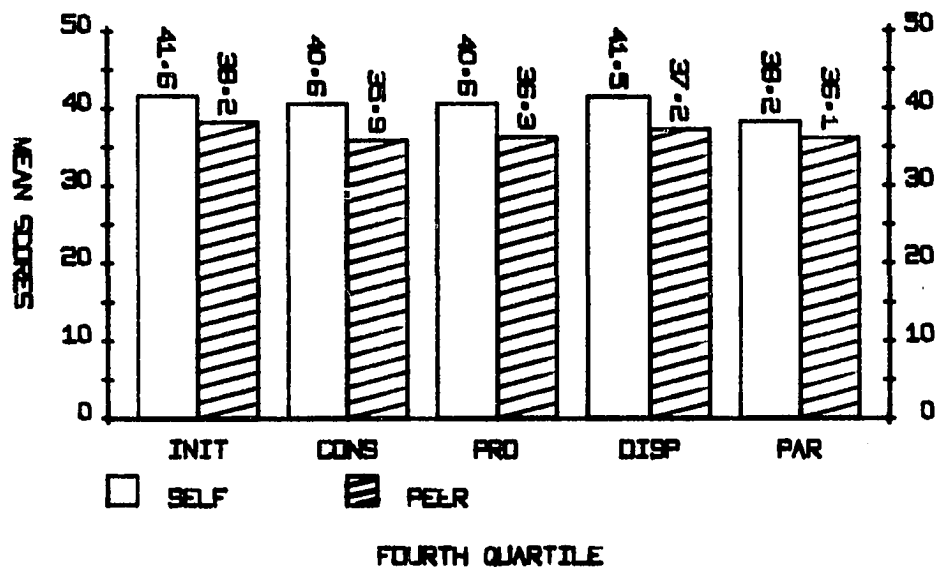
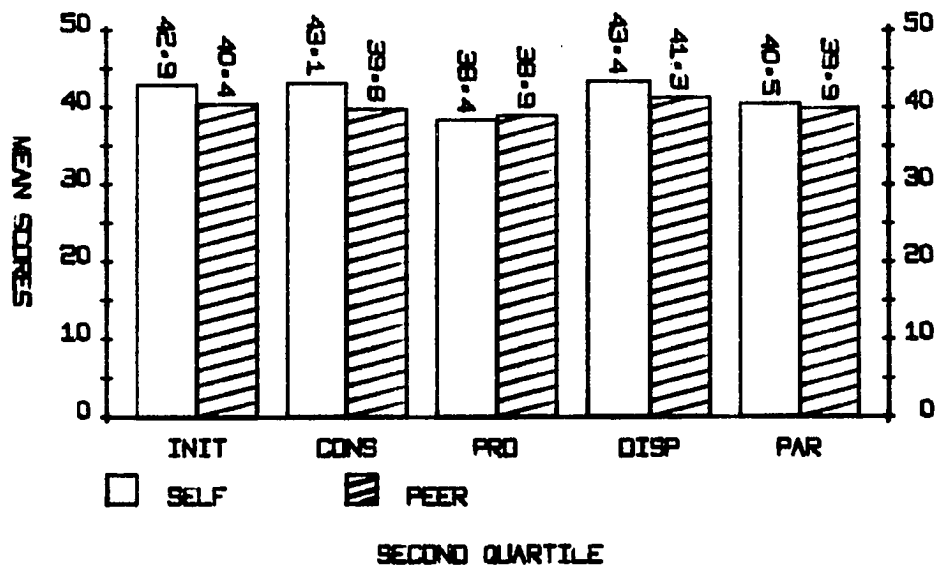
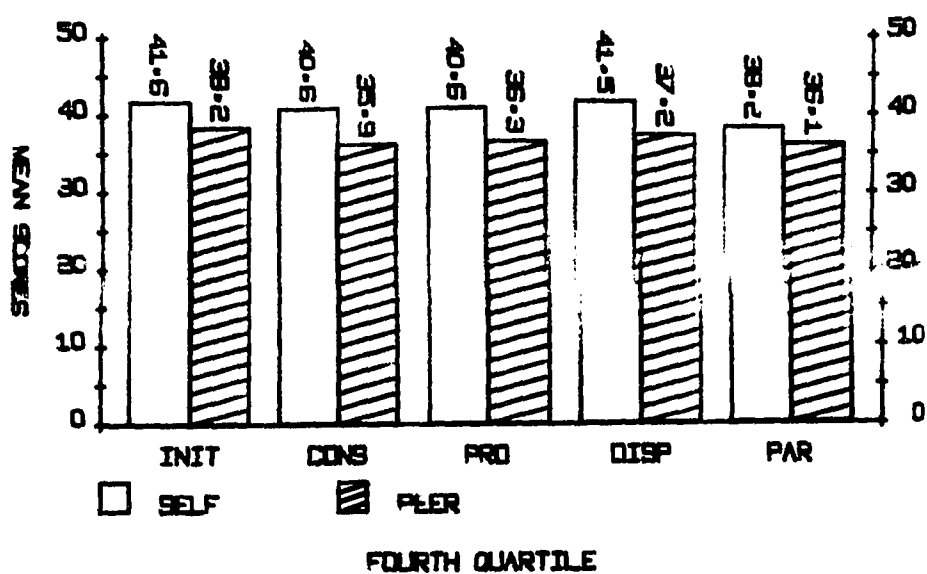
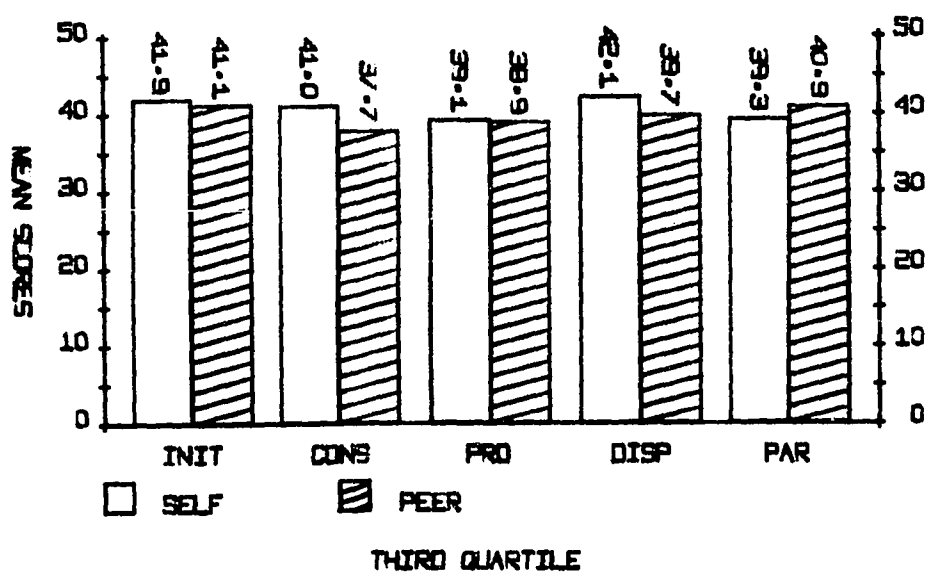


FIGURE 12- COMPARISON OF THE MEANS OF SCORES OF MIDDLE MANAGERS IN THE THIRD AND FOURTH QUARTILES WHEN GROUPED BY SIZE OF INSTITUTION.



managers in the second quartile. The computed values exceed the table value of 2.042 at .05 level of confidence with 29 degrees of freedom. Peers also describe managers lower on the Disposal dimension for managers in the first quartile than managers in the second quartile. The difference was tested against the above table value and was significant.

Managers in the fourth quartile are described by their peers as being significantly lower on the dimensions of Procurement and Disposal and on the performance score. Calculated values for these dimensions exceed the table value of 2.052 at .05 level of confidence with 27 degrees of freedom. The only significant difference between managers in the fourth quartile and the third quartile is on the peer-reported performance score. Managers in the fourth quartile have a lower mean on the performance score. The calculated value of 2.438 exceeds the table value of 2.052 at the .05 level of confidence with 27 degrees of freedom. This information is presented in Figures 10, 11, and 12.

Due to the presence of seven significant differences between the means of leader behavior dimension and performance scores for middle managers arranged by quartiles according to size of institution, the null hypothesis is rejected. The original hypothesis that middle managers manifest leader behavior dimensions which vary significantly according to the size of the institution is supported by the preceding evidence.

SUMMARY

The major part of this chapter was devoted to the statistical testing of the eleven hypotheses which were developed to determine significant relations between the basic elements of the problem as stated in Chapter III. Each of the hypotheses was converted into a null hypothesis. The null hypothesis was rejected in seven of the eleven hypotheses. This was an indication that in these seven instances significant differences were located between the scores being compared between groups of middle managers.

Significant differences (those not attributable to chance) were identified for the following hypotheses:

1. Significant differences were identified between self-reported and peer-reported leader behavior dimension scores of Initiating Structure, Consideration, and Disposal.

2. Significant differences were identified between the leader behavior scores of middle managers arranged into groups according to position held in the institution.

3. Significant correlations were identified between the leader behavior dimensions of Initiating Structure-Consideration and the dimensions of Procurement-Disposal.

6. Significant differences were identified between the scores of middle managers arranged into quartiles according to self and peer-reported performance scores.

9. Significant differences were identified between the scores of middle managers grouped according to age.

10. Significant differences were identified between the scores of middle managers grouped according to the location of previous position.

11. Significant differences were identified between the scores of middle managers grouped according to the size of the institution.

It was assumed that the variables included in the preceding hypotheses were having, or have had sometime in the past, an effect on the leader behavior dimensions and performance scores for middle managers in public, four-year colleges.

The null hypothesis was accepted for four hypotheses. No significant differences were found for the following hypotheses:

4. No significant differences were found between the scores of middle managers grouped by time span of discretion.

5. No significant differences were found between self-reported and peer-reported performance scores of middle managers.

7. No significant differences were found between the scores of middle managers arranged into groups by the number of years spent in present position.

8. No significant differences were found between the

scores of middle managers when they are classified into groups according to reported salary level.

It was assumed that the variables of these four hypotheses had no effect on the leader behavior dimension and performance scores of middle managers in public, four-year colleges.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This study is concerned with middle managers in public, four-year colleges who function as business managers, registrars, and deans of students. A middle manager is defined as an administrator who does not make policy decisions, but who makes decisions related to the interpretation and implementation of the policy established by top management in an institution. An additional characteristic of middle managers is that they supervise others who help carry out the tasks assigned to the middle manager.

A review of the origin of the three positions of the middle managers suggests that these positions had their formal beginnings in the early 1900's. The tasks delegated to these three positions were formerly done either by the president personally or by a subordinate under the president's supervision. Often these jobs were part-time positions which were combined with other duties in the institution. Two general factors seemed to be the forces behind the emergence of these positions into full-time assignments. The first reason for enlarging the positions was the increase

in the number of students. The second factor was the complexity of recording created by the initiation of the elective system and the resulting flexibility in curriculum.

Early studies in leadership attempted to isolate the trait, or traits, which would enable the selection of individuals who would be successful in specific jobs. However no set of personality measures permitted the separation of leaders from nonleaders. Therefore a shift occurred following World War II in the study of leaders. Emphasis was placed on the behavior of leaders. The acts of leaders were accumulated and analyzed for aircraft crews, college department heads, school superintendents, and supervisors in industry. Two clusters of behaviors emerged from these studies. One was Initiating Structure which defined personal roles, and established patterns of organization, channels of communication, and ways of getting things done. The other group of behaviors was labeled Consideration and had to do with behavior which enlarged the friendship and mutual trust between the members of a group. The individuals who were identified as the real leaders in a group were described as frequently performing both sets of behaviors. The present emphasis of leader behavior research is focused upon the identification of the effective leader and upon identifying the change which occurs to leaders as the result of developmental programs.

The study is designed to examine the relationships

which exist between four leader behaviors (Initiating Structure, Consideration, Procurement, and Disposal), performance effectiveness, and background variables. Two sources are used to obtain the needed information. The first is the self-reported information of each middle manager as he describes his own leader behavior. The second is peer-reported information in which each middle manager describes the leader behavior of two of his peers.

Three groups: twenty business managers, twenty registrars, and twenty deans of students were formed by taking the respondents from the fourteen institutions which had responses for all three positions. These initial groups were supplemented by managers from schools with two responses. This was done to maximize the use of the peer-reported information for the sixty middle managers.

The basic statistical approach is to locate and measure the significance of differences between groups of middle managers on the four leader behavior dimensions and performance scores. This was done for each of the two sources, self-reported and peer-reported information. Seven of the eleven hypothesis indicated that real difference existed between the variables.

CONCLUSIONS

1. Self-reported leader behavior differs from peer-reported leader behavior for business managers, registrars,

and deans of students. For business managers the one dimension with significant difference between self and peer-reported behavior is Consideration. The self-reported mean for Consideration is higher than the peer-reported score. This indicates that peers perceive business managers as performing less frequently the behaviors which pertain to Consideration. For registrars there are three significant differences on the dimensions of Initiating Structure, Consideration and Disposal. On each of these dimensions the self-reported mean is higher than the peer-reported mean for the leader behavior scores. For the deans of students there are significant differences on the dimensions of Consideration and Disposal. On both dimensions the self-reported mean is higher than the peer-reported mean for the scores of these two leader behavior dimensions. Inspection of the data reveals that in each instance of significant difference between the means of leader behavior dimensions, the self-reported score is higher than the peer-reported score. This indicates that business managers, registrars, and deans of students on certain leader behavior dimensions perceive of themselves more highly than do their peers. However on other dimensions business managers, registrars and deans of students agree with their peers in their perception of leader behavior.

2. Business managers, registrars and deans of students differ in their leader behavior according to their position. This conclusion is drawn from the results of the analysis of

variance in which Initiating Structure and performance were found to have significant F-ratios for self-reported behavior. The t-tests of significance of difference between the means show that registrars view themselves higher on both Initiating Structure and performance than either the business managers or the deans of students. Business managers and deans of students do not see themselves as being significantly different on these two dimensions.

3. The two dimensions, Procurement and Disposal, are related to the leader behavior dimensions of Initiating Structure and Consideration for business managers, registrars and deans of students. Eight correlations were calculated for each position. Four of these correlations are self-reported and four are peer-reported. For business managers, Procurement-Disposal dimensions are correlated significantly with Initiating Structure-Consideration seven of the eight times. Only Procurement (self-reported) is not related to Consideration (self-reported). For registrars the four dimensions are related in four of the eight comparisons. Procurement (peer-reported), Disposal (self and peer-reported) are correlated to Initiating Structure. Disposal (self-reported) is related to Consideration. Procurement (self-reported) is not related to Initiating Structure. Procurement (self and peer-reported) and Disposal (peer-reported) is not related to Consideration for registrars. For the deans of students the four dimensions are related on all eight

correlations. There are significant relations between the leader behavior dimensions of Procurement-Disposal, and Initiating Structure-Consideration. However these relations are affected both by the source of the information and the position of middle managers.

4. Middle managers agree with their peers in reporting the performance of the middle manager. The self-reported and peer-reported means for performance were compared for business managers, registrars, and deans of students, and all three groups. The null hypothesis was posited and accepted due to the lack of any significant difference between these pairs of means. Thus middle managers do agree with their peers in observing and reporting the performance information. Inspection of the means compared indicates that there is variation between the three groups of middle managers. However even with this variation due to position there is still no significant difference between self-reported and peer-reported scores on performance for business managers, registrars, deans of students, and all three groups.

5. The performance scores of middle managers relate positively to their leader behavior dimension scores. This statement is based on the results of the analysis of leader behavior scores when middle managers are grouped into quartiles by the performance scores. The scores of the high (fourth) and low (first) quartiles were compared using first self-reported performance scores, and then using peer-reported

performance scores. When the self-reported performance scores are used, all four of the leader behavior dimensions are significantly different. When the peer-reported performance scores are used, the four peer-reported leader behavior dimensions were significantly different. It is significant however that no matter which data source was used, the four leader behavior dimensions varied with the differing performance scores. Inspection of the self-reported means revealed that the range of 16 points is greater for the performance scores than for the dimension scores which varied 6 points.

6. Age affects the leader behavior of middle managers. This conclusion is based upon the rejection of the null hypothesis for self-reported and peer-reported dimension of Consideration. With self-reported scores, middle managers in the second age bracket (35-50 years) have a significantly higher Consideration score than group one (under 35 years) or group three (over 50). With the peer-reported scores the managers in the third group (over 50) are significantly lower than either group two (35-50 years) or group one (under 35) on Consideration. No other leader behavior dimension scores are significantly different. Age appears to affect the leader behavior of middle managers by allowing the managers in groups two (35-50 years) and three (over 50) to over-rate themselves on the dimension of Consideration.

7. The location of previous position affects the leader behavior of middle managers. The evidence obtained by testing the null hypothesis suggests that there are significant differences between groups of middle managers who came to their present positions from different locations. The major differences are between the groups of middle managers who came from business, government, or the military (group 4) and those who came from another college (group 2) or those who came from this institution (group 1). Using self-reported information, managers from business, government, or the military (group 4) describe themselves lower than managers from this institution (group 1) on the dimensions of Procurement and Disposal. Managers from business, government, or the military (group 4) also perceive themselves as being lower than managers from another college (group 2) on the dimensions of Procurement, Disposal and Consideration. However, when peer-reported scores are used, managers from business, government, or the military (group 4) are perceived to be higher on the dimensions of Disposal and Consideration than the manager in group 1 (this institution). It appears that managers with previous experience in a college setting view themselves as acting with Consideration more than managers with no previous college experience. However when these groups are observed and described by their peers, those managers without previous college experience are rated higher on Consideration. In fact the managers who come from this

institution (group 1) to their present position are rated the lowest by their peers on Consideration.

8. The leader behavior of middle managers is related to the size of the institution. This conclusion is supported by the evidence obtained from the use of the null hypothesis in which seven significant differences were found between the means of groups of middle managers arranged into quartiles by size of institution. The first three significant differences were located by comparing the group in quartile 1 to the group of quartile 2. Significant differences occur on the dimensions of self-reported Consideration, and peer-reported dimensions of Consideration and Disposal. In all three cases the managers in group 1 were lower on these dimensions than group 2. It appears that middle managers in small institutions do not exhibit more consideration. The next three significant differences are found between group 2 and group 4 on the peer-reported dimensions of Procurement, Disposal, and performance. Each time the managers in group 4 (largest schools) are viewed as being lower on these dimensions than the managers of group 2. Inspection of the means of group 4 shows that the means are very close to the means of group 1. The performance mean (peer-reported) of group 4 is lower than the performance mean of group 1.

Therefore the peers of managers in large institutions evaluate middle managers lower on performance than peers evaluate middle managers in smaller institutions. One

possible explanation is that in smaller institutions middle managers are assigned multiple roles which tend to lower the opinions of peers in evaluating job performance. Another possibility is that middle managers in the large schools would be more specialized in the job tasks which they perform, and that peers are less knowledgeable about the duties and behaviors of the middle managers. Size of institution would be a factor affecting the behavior of middle managers by the pattern of tasks assigned and due to the performance expectations which are developed for middle management jobs.

9. The leader behavior of middle managers is not affected by the level of responsibility indicated by the time span of discretion, years spent in previous position, and the reported salary level. The relationship between these variables and leader behavior was tested using the null hypothesis. No significant difference was identified between the means of leader behavior dimensions for various groups of middle managers. Multiple comparisons using the t-test of the significance of the difference between the means were made. The absence of any significant difference is the evidence that justifies this conclusion.

IMPLICATIONS

Certain speculative statements based on further deductions from the findings of the study will now be made. It is hoped that these statements will be both interesting and

and helpful to top management in colleges by providing information which will be useful in supervising, in planning and implementing change, in reassigning duties, and in hiring replacements for these middle management positions. Also it is hoped that this information will enable middle managers to better understand their own behavior and its limitations and the behavior of their co-workers. No attempt will be made to substantiate these statements other than that they seem to be reasonable extensions of the findings of the tested hypotheses.

1. Middle managers tend to over-rate themselves on the leader behavior dimensions. Inspection of Tables 1 and 2 reveals that where there are significant differences between self-reported and peer-reported behaviors, the self-reported scores are higher in each instance. Registrars rated themselves higher on the dimensions of Initiating Structure, Consideration, and Disposal. Deans of students rated themselves higher on Consideration and Disposal. Business managers rated themselves higher only on Consideration. This indicates that registrars have the largest gap between their own appraisal of their behavior and the assessment of their behavior by their peers. Deans of students are in the middle, between registrars and business managers with their perception of their behavior. They have significant differences on two leader behavior

dimensions. Business managers have the least discrepancy between self and peer-reported information. It is important to note that all three middle managers over-rated themselves on Consideration. For persons who work with middle managers this means that self-reported information about the capabilities of registrars will need to be discounted the most. The information provided by business managers will need the least adjustment in order to be accurate. All three middle managers will exaggerate Consideration kinds of behavior. Methods will need to be developed by which this distortion is identified and corrected.

2. The number of years of experience in a position does not make a middle manager more effective in performing the tasks of his job. This was indicated by the lack of differences in leader behavior dimension scores due to number of years spent in present position. If experience was a factor then those middle managers with more years in present position would have had significantly higher scores on the leader dimensions and performance scores. This was not the case. This finding seems to indicate that experience in terms of number of years makes a limited contribution to leader behavior. There may be a significant difference between the inexperienced and the experienced, but this distinction was not discernable

within the design of this study.

3. The middle managers who are paid the largest salaries are not viewed as more capable than those paid less. There was no significant relation between salary and leader behavior and performance scores. This probably indicates that salary is based on other criteria such as formal training or accumulated years of service. Merit, which could have been reflected by higher scores on the leader behavior dimensions and on the performance scores, appears to have no part in the establishment of salary.

4. The age of middle managers appears to be a factor, especially on the Consideration dimension. Middle managers who are in the 35-50 age bracket are reported to have higher scores on Consideration. Managers in the 50-up age group are reported to be lower on Consideration, but higher on Initiating Structure. This may indicate that the younger generation of middle managers has a different orientation to their jobs than the older generation. It could also be indicative of a shift which occurs as middle managers grow older. It may be that they become more interested in the Initiating behaviors and less concerned with Consideration activities.

5. Where middle managers work before coming to their present jobs does seem to make a difference. If they come from within the institution or from another college, they describe themselves higher on the leader behavior dimensions.

If they come from business, government, or the military, they describe themselves lower on the leader dimensions. However this second group will be described higher than the first group by their peers. This seems to reflect the self-image of the managers. If they have considerable background in educational environment they are more confident about their behavior. If they have limited background, they will have less confidence, but will be viewed by their peers as being superior on certain dimensions.

6. Middle managers from small schools do not exhibit more Consideration type behavior. Neither are the managers in large schools viewed by their peers as superior in the leader behavior dimensions. This indicates that the size of the institution affects the behavior of middle managers either because of the capabilities of the persons selected or because of the expectations which come with the job in which they work. This says that individuals who have a large need to think well of themselves and to be well thought of by their peers should locate in middle sized institutions.

There is a need for continuing research of middle managers in institutions of higher education. Instruments which can both adequately differentiate differences and identify similarities are needed. Data which pertains to specific groups and levels of middle management needs to be collected and analyzed in order to build a base of information which will contribute to the understanding of middle managers and

how they contribute to the leadership function of the total institution.

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APPENDICES

APPENDIX A
PERSONAL INFORMATION SHEET
FOR
MIDDLE MANAGERS

A STUDY OF MIDDLE MANAGERS' LEADER BEHAVIOR

DIRECTIONS: Please give one answer for each of the following questions.

1. Name of Institution: _____
2. Your position or title _____
3. Number of students enrolled: (Head-count - Fall term)
☐ Under 3,499 ☐ 3,500-6,499 ☐ Over 6,500.
4. How long have you worked in your present position?
☐ Under 2 years ☐ 3-10 years ☐ 11-20 years ☐ Over 20 years.
5. What was your position (or title) just prior to the one you now hold?

6. Where was your previous position located?
☐ At this institution ☐ Another college ☐ Public school
☐ In business ☐ Government or military.
7. Indicate your age:
☐ Under 35 years ☐ 35-50 years ☐ Over 50 years.
8. What is your approximate salary?

<input type="checkbox"/> Under 8,000	<input type="checkbox"/> 15,000-16,000
<input type="checkbox"/> 9,000-10,000	<input type="checkbox"/> 17,000-18,000
<input type="checkbox"/> 11,000-12,000	<input type="checkbox"/> 19,000-20,000
<input type="checkbox"/> 13,000-14,000	<input type="checkbox"/> Over 20,000
9. How often do you and your immediate supervisor discuss the responsibilities of your job?
☐ daily ☐ weekly ☐ once a month ☐ every 6 months.
10. Where does this discussion usually take place:
☐ in your office ☐ in his office ☐ a lounge
☐ other, such as at home, or at a social occasion.
11. How soon after making a decision on your job do you share this decision with your supervisor?
☐ a few hours ☐ three or four days ☐ a couple of weeks
☐ a month later ☐ several months later ☐ never

APPENDIX B
LEADER BEHAVIOR DESCRIPTION
QUESTIONNAIRE
FOR
SELF-REPORTED
BEHAVIORS

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE

SELF-REPORT

Your Position _____

Use the items on the following two pages to describe as accurately as possible, your own leader behavior. Remember that the term group refers to the unit in the organization which you supervise, and that the term members refers to the people whom you supervise.

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The Ohio State University
Columbus, Ohio

DIRECTIONS:

- a. READ each item carefully.
- b. THINK about how frequently you engage in the behavior described by the item.
- c. DECIDE whether you (A) Always, (B) Often, (C) Occasionally, (D) Seldom, or (E) Never act as described by the item.
- d. DRAW A CIRCLE around one of the five letters (A B C D E) following the item to show the answer you have selected.

A - Always
 B - Often
 C - Occasionally
 D - Seldom
 E - Never

- e. MARK your answers as shown in the examples below.

Example: You often act as described. A B C D E

Example: You never act as described. A B C D E

Example: You occasionally act as described. A B C D E

* * * * *

1. You let group members know what is expected of them. A B C D E
2. You are friendly and approachable. A B C D E
3. You get your superiors to act for the welfare of group members. A B C D E
4. You protect group members from outside interference. A B C D E
5. You encourage the use of uniform procedures. A B C D E
6. You do little things to make it pleasant to be a member of the group. A B C D E
7. You see that the group gets a fair share of new equipment. A B C D E
8. You back up group members in disputes with outsiders. A B C D E
9. You try out your ideas in the group. A B C D E
10. You put suggestions made by the group into operation. A B C D E

11. You have an influential voice in higher-level decisions that affect the group. A B C D E
12. You oppose unrealistic outside demands even if it involves personal risks. A B C D E
13. You make your attitudes clear to the group. A B C D E
14. You treat all group members as your equals. A B C D E
15. You are influential in getting concessions from higher authorities for group members. A B C D E
16. You keep outside pressures from disrupting the work of the group. A B C D E
17. You decide what shall be done and how it shall be done. A B C D E
18. You give advance notice of changes. A B C D E
19. You see that the grievances of group members get a fair hearing from higher authorities. A B C D E
20. You defend the professional rights of members. A B C D E
21. You assign group members to particular tasks. A B C D E
22. You keep to yourself. A B C D E
23. You influence higher-level decisions in the interest of the group. A B C D E
24. You keep outsiders informed of what the group is doing. A B C D E
25. You make sure that your part in the group is understood by the group members. A B C D E
26. You look out for the personal welfare of group members. A B C D E
27. You support group members' requests for materials and supplies. A B C D E
28. You sell outsiders on the importance of the work of the group. A B C D E
29. You schedule the work to be done. A B C D E

- | | |
|---|-----------|
| 30. You are willing to make changes. | A B C D E |
| 31. You let higher authorities overrule your decisions. | A B C D E |
| 32. You build confidence among outsiders in the competence of group members. | A B C D E |
| 33. You maintain definite standards of performance. | A B C D E |
| 34. You refuse to explain your actions. | A B C D E |
| 35. You influence higher authorities to change their decisions that affect the group unfavorably. | A B C D E |
| 36. You interpret the group and its work to outsiders. | A B C D E |
| 37. You ask that group members follow standard rules and procedures. | A B C D E |
| 38. You act without consulting the group. | A B C D E |
| 39. You see that the group gets a fair share of available resources. | A B C D E |
| 40. You maintain effective relations with outside groups. | A B C D E |

APPENDIX C
LEADER BEHAVIOR DESCRIPTION
QUESTIONNAIRE
FOR
PEER-REPORTED
BEHAVIORS

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE

PEER-REPORT

Leader Being Described _____

Your Position _____

Use the items on the following two pages to describe the leader behavior of the person listed above. You are not to judge whether his behavior is desirable or undesirable. You are only to describe as accurately as you can, his behavior.

Note: The term group, as employed in the following items, refers to the unit of organization that is supervised by the person being described.

The term members, refers to all the people in the unit of organization that is supervised by the person being described.

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DIRECTIONS:

- a. READ each item carefully.
- b. THINK about how frequently the leader engages in the behavior described by the item.
- c. DECIDE whether he (A) Always, (B) Often, (C) Occasionally, (D) Seldom, or (E) Never acts as described by the item.
- d. DRAW A CIRCLE AROUND ONE of the five letters (A B C D E) following the item to show the answer you have selected.

A - Always
 B - Often
 C - Occasionally
 D - Seldom
 E - Never

- e. MARK your answers as shown in the examples below.

Example: He often acts as described. A B C D E

Example: He Never acts as described. A B C D E

Example: He occasionally acts as described. A B C D E

1. He lets group members know what is expected of them. A B C D E
2. He is friendly and approachable. A B C D E
3. He gets his superiors to act for the welfare of group members. A B C D E
4. He protects group members from outside interference. A B C D E
5. He encourages the use of uniform procedures. A B C D E
6. He does little things to make it pleasant to be a member of the group. A B C D E
7. He sees that the group gets a fair share of new equipment. A B C D E
8. He backs up group members in disputes with outsiders. A B C D E
9. He tries out his ideas in the group. A B C D E
10. He puts suggestions made by the group into operation. A B C D E

11. He has an influential voice in higher level decisions that affect the group. A B C D E
12. He opposes unrealistic outside demands even if it involves personal risks. A B C D E
13. He makes his attitudes clear to the group. A B C D E
14. He treats all group members as his equals. A B C D E
15. He is influential in getting concessions from higher authorities for group members. A B C D E
16. He keeps outside pressures from disrupting the work of the group. A B C D E
17. He decides what shall be done and how it shall be done. A B C D E
18. He gives advance notice of changes. A B C D E
19. He sees that the grievances of group members get a fair hearing from higher authorities. A B C D E
20. He defends the professional rights of members. A B C D E
21. He assigns group members to particular tasks. A B C D E
22. He keeps to himself. A B C D E
23. He influences higher-level decisions in the interest of the group. A B C D E
24. He keeps outsiders informed of what the group is doing. A B C D E
25. He makes sure that his part in the group is understood by the group members. A B C D E
26. He looks out for the personal welfare of group members. A B C D E
27. He supports groups members' requests for materials and supplies. A B C D E
28. He sells outsiders on the importance of the work of the group. A B C D E
29. He schedules the work to be done. A B C D E

- | | |
|---|-----------|
| 30. He is willing to make changes. | A B C D E |
| 31. He lets higher authorities overrule his decisions. | A B C D E |
| 32. He builds confidence among outsiders in the competence of group members. | A B C D E |
| 33. He maintains definite standards of performance. | A B C D E |
| 34. He refuses to explain his actions. | A B C D E |
| 35. He influences higher authorities to change their decisions that affect the group unfavorably. | A B C D E |
| 36. He interprets the group and its work to outsiders. | A B C D E |
| 37. He asks that group members follow standard rules and procedures. | A B C D E |
| 38. He acts without consulting the group. | A B C D E |
| 39. He sees that the group gets a fair share of available resources. | A B C D E |
| 40. He maintains effective relations with outside groups. | A B C D E |

APPENDIX D
PERFORMANCE ANALYSIS
REPORTS

PERFORMANCE ANALYSIS REPORT (PAR)
FOR BUSINESS MANAGER

DIRECTIONS:

- a. READ each item carefully.
- b. THINK about how effectively each task is performed by the holder of the position in your institution.
- c. DECIDE whether he is (A) Extremely effective, (B) Very effective, (C) Effective, (D) Ineffective, (E) Very Ineffective.
- d. DRAW A CIRCLE around one of the five letters (A B C D E) following the item to show the answer you have selected.

A - Extremely effective
 B - Very effective
 C - Effective
 D - Ineffective
 E - Very ineffective

1. Administers business affairs of college. A B C D E
2. Prepares operating budget draft for submission through President, to board of trustees. A B C D E
3. Directs control of budget upon its approval by board, including collection, custody, investment, disbursement, accounting, and auditing of all college funds. A B C D E
4. Recruits, supervises, and oversees training of clerical staff. A B C D E
5. Audits financial status of student organization accounts, campus food service, housing, and bookstores. A B C D E
6. Administers financial aspects of student loans, scholarships and student credit. A B C D E
7. Maintains financial records and prepares annual financial report. A B C D E
8. Formulates and administers policies and procedures for development and management of physical plant, including custodial care, sanitation, and fire and police protection. A B C D E
9. Develops policies and procedures for procurement of goods and services for the college. A B C D E
10. Coordinates service operations such as printing, duplicating, mail and messenger service, bindery, and machine computing and tabulating. A B C D E

(Task descriptions taken from Dictionary of Occupational Titles)

PERFORMANCE ANALYSIS REPORT (PAR)
FOR REGISTRAR

DIRECTIONS:

- a. READ each item carefully.
- b. THINK about how effectively each task is performed by the holder of the position in your institution.
- c. DECIDE whether he is (A) Extremely effective, (B) Very effective, (C) Effective, (D) Ineffective, (E) Very ineffective.
- d. DRAW A CIRCLE around one of the five letters (A B C D E) following the item to show the answer you have selected.

A - Extremely effective
B - Very effective
C - Effective
D - Ineffective
E - Very Ineffective

1. Coordinates and directs college or university registration activities. A B C D E
2. Consults with other officials to devise registration schedules and procedures. A B C D E
3. Maintains complete inventory of each graduating student regarding required number of credits and courses. A B C D E
4. Prepares commencement list. A B C D E
5. Directs preparation of statistical reports on educational activities for government and educational associations. A B C D E
6. Interprets registration policies to faculty and students. A B C D E
7. Supervises workers engaged in transcribing and evaluating academic records of students desiring to enter college or university. A B C D E
8. Compiles information, such as class schedules and graduation requirements, for publication in school bulletins and catalogs. A B C D E
9. Issues official transcript. A B C D E
10. Coordinates class schedules with room assignments for optimum use of buildings and equipment. A B C D E

(Task descriptions taken from Dictionary of Occupational Titles).

PERFORMANCE ANALYSIS REPORT (PAR)
FOR DEAN OF STUDENTS

DIRECTIONS:

- a. READ each item carefully.
- b. THINK about how effectively each task is performed by the holder of the position in your institution.
- c. DECIDE whether he is (A) Extremely effective, (B) Very effective, (C) Effective, (D) Ineffective, (E) Very ineffective.
- d. DRAW A CIRCLE around one of the five letters (A B C D E) following the item to show the answer you have selected.

A - Extremely effective
B - Very effective
C - Effective
D - Ineffective
E - Very ineffective

1. Directs and coordinates student programs of college or university. A B C D E
2. Participates in formulation of student personnel policies and advises staff members on problems relating to policy, program and administration. A B C D E
3. Directs and assists in planning social, recreational, and cocurricular programs. A B C D E
4. Provides individual or group counseling or advising services relative to personal problems, educational and vocational objectives, social and recreational activities, and financial assistance. A B C D E
5. Responsible for supervision of student discipline regarding adherence to university rules and in instances concerning responsibility to public for student actions. A B C D E
6. Sponsors and advises student organizations. A B C D E
7. Prepares budget and directs appropriations of student services unit. A B C D E
8. Represents university in community on matters pertaining to student personnel program and activities. A B C D E
9. Directs admissions, foreign student services, health services student union, and testing services. A B C D E
10. Supervises women's activities or/and men's activities and designated Dean of Men or Dean of Women. A B C D E

APPENDIX E
FOLLOW-UP LETTERS

November 29, 1970

A recent review of college administrative jobs reveals that three important positions are common to most four-year colleges---the Business Manager, the Registrar, and the Dean of Students. A similar review of the literature indicates that little is known about the leader behavior of the persons who hold these basic positions.

You can help remedy this situation by sharing your opinions about your own leader behavior and the leader behavior of two of your co-workers. Your opinions are vital to the success of this study. Please take a few minutes and complete the attached questionnaire.

Respond to each question, which can be answered by filling in a blank, or by checking or circling a response. All information shared on this questionnaire will be held in confidence. No individual person or college will be identified.

Realizing the many demands on your time, let me express my appreciation for your willingness to take a few minutes to complete the questionnaire, and thus contribute to a more precise description of the behavior of leaders in your professional area.

Use the enclosed stamped and addressed envelope to return your questionnaire. Thank you for your immediate response.

Sincerely,

Bryant Ledgerwood
Director of Institutional Research

BL:11

December 9, 1970

Please Excuse-----Or Use-----This Gentle Reminder:

Excuse this note if you have already shared in the study of Leader Behavior of Middle Managers in four-year colleges by returning the questionnaire which I sent you a few days ago. Read no further. Accept again my grateful thanks.

Use this note---if you have not returned your questionnaire---as a gentle reminder to do so.

In order for the study to be a success, and for your school to be included, a response is needed from each of the persons filling the key positions of Business Manager, Registrar, and Dean of Students.

Take a few minutes and share your ideas about your own leader behavior and the leader behavior of two of your co-workers. Without your help your school will have to be dropped from the study.

Respond to each question by filling in a blank, by checking an answer, or by circling an answer. All information shared on this questionnaire will be held in strict confidence. No individual person or school will be identified.

Thank you for taking a few minutes to contribute to a more precise description of the leader behavior now being exercised by the persons holding these professional positions.

Sincerely,

Bryant Ledgerwood
Director of Institutional Research

BL:11

December 15, 1970

You can make three responses to this request for information--

1. You can throw this questionnaire in the trash---while muttering "appropriate words" about questionnaires in general and about senders of questionnaires in particular. This may make you feel better, but will do little in contributing your ideas to this FIRST study of the leader behavior of middle managers in four-year colleges.
2. Or you can tell yourself---"I'll fill this out"---later! This response will probably bury the questionnaire in that pile of correspondence which you intend to answer---as soon as you have some spare time. Most of us never have this extra time. If you make this response you will fail to have a part in this study.
3. Or you can take a few minutes today and fill in the requested information. Any information which you share will be held in confidence. No individual person or college will be identified. Your immediate response will enable the tallying and analysis of this study to be completed before January 1. You will be sharing in a more precise description of those persons who are working in your professional area.

Seasons Greetings to You,

Bryant Ledgerwood
Director of Institutional Research

BL:11

APPENDIX F
RESPONSES

Number of Middle Manager Who Responded
to Request for Information

Total Responses from Each College	Number of Colleges	Middle Managers Responding
3	14	42
2	19	38
1	12	12
0	1	0
—	<u>46</u>	<u>92</u>
Responded - but refused to participate.		6
		<u>98</u>

Number of Middle Managers Who Responded
By Positions

Business Managers	29
Registrars	36
Deans of Students	33
	<u>98</u>

APPENDIX G
SCORES OF SUBJECTS

Self and Peer-Reported Scores of Leader Behavior
Dimensions of Business Managers

Subject	Initiating		Consideration		Procurement		Disposal	
	Self	Peer	Self	Peer	Self	Peer	Self	Peer
1	39	42	39	32	39	39	40	37
2	43	36	40	29	37	37	41	33
3	48	40	41	29	43	35	47	28
4	42	42	41	40	38	43	44	43
5	36	38	39	40	34	38	37	42
6	45	36	46	33	44	35	49	36
7	46	42	47	38	40	37	46	40
8	41	42	39	35	38	41	42	40
9	41	44	43	34	37	39	39	41
10	44	30	37	31	41	39	43	31
11	38	43	40	42	38	40	38	43
12	40	43	44	41	37	41	39	45
13	42	43	35	29	44	38	45	37
14	37	40	37	39	39	38	40	36
15	31	38	36	43	28	37	29	40
16	44	47	45	45	22	45	41	48
17	40	39	38	37	37	35	38	36
18	40	38	37	40	38	43	38	43
19	47	46	41	27	47	40	41	37
20	38	27	38	32	38	30	37	30

Self and Peer-Reported Scores of Leader Behavior
Dimensions of Registrars

Subject	Initiating		Consideration		Procurement		Disposal	
	Self	Peer	Self	Peer	Self	Peer	Self	Peer
1	49	39	43	38	37	38	48	41
2	45	42	39	37	35	39	38	39
3	49	50	41	29	41	39	44	43
4	41	46	41	41	45	47	43	45
5	44	39	43	41	37	40	42	44
6	46	39	42	40	39	38	42	41
7	46	43	41	39	41	36	46	35
8	46	36	47	39	43	37	46	38
9	45	44	38	41	35	43	39	42
10	43	35	49	34	35	30	43	33
11	50	37	47	35	45	36	49	38
12	41	39	46	41	40	37	43	39
13	46	41	43	40	43	36	44	41
14	38	38	38	40	34	35	35	39
15	44	38	32	40	45	38	44	40
16	45	42	43	46	40	36	45	41
17	49	44	48	46	41	40	48	44
18	45	47	41	45	42	45	45	45
19	41	41	41	36	45	35	45	40
20	42	43	38	39	40	38	42	40

Self and Peer-Reported Scores of Leader Behavior
Dimensions of Deans of Students

Subject	Initiating		Consideration		Procurement		Disposal	
	Self	Peer	Self	Peer	Self	Peer	Self	Peer
1	26	32	39	26	29	29	35	30
2	37	38	39	37	34	34	37	37
3	39	38	43	41	40	39	41	40
4	45	41	42	38	46	44	45	42
5	37	35	47	38	46	36	45	40
6	37	43	38	42	34	41	42	42
7	43	44	43	42	38	41	39	45
8	38	36	39	33	39	43	41	44
9	43	43	44	35	38	38	43	39
10	38	39	41	28	37	32	42	32
11	38	45	34	44	34	43	39	45
12	41	42	41	46	39	40	40	43
13	36	34	39	34	44	35	42	36
14	47	35	47	35	42	34	43	34
15	42	35	42	32	40	30	42	34
16	42	35	44	32	44	30	44	34
17	38	45	44	43	38	43	45	44
18	45	46	41	40	47	43	46	43
19	48	32	45	36	44	32	48	35
20	39	32	37	24	38	34	42	29

Self and Peer-Reported Performance Scores
of Subjects by Positions

Subjects	Business Managers		Registrars		Deans of Students	
	<u>Self</u>	<u>Peer</u>	<u>Self</u>	<u>Peer</u>	<u>Self</u>	<u>Peer</u>
1	33	32	43	39	20	23
2	32	34	47	48	32	31
3	41	40	36	47	38	39
4	42	48	45	48	45	45
5	36	43	45	39	40	43
6	49	35	44	45	29	40
7	41	37	44	41	33	42
8	34	44	49	32	31	39
9	40	43	37	48	33	41
10	50	26	39	39	40	38
11	31	39	50	40	31	45
12	40	39	41	37	36	42
13	40	42	44	39	29	33
14	31	40	41	39	46	33
15	34	42	44	38	33	33
16	42	40	40	39	36	33
17	37	43	50	40	43	47
18	34	39	43	50	40	36
19	42	33	42	40	31	30
20	43	27	33	40	38	32