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MEASURES OF LEADER BEHAVIOR AND THEIR RELATION TO PERFORMANCE LEVELS OF COUNTY EXTENSION AGENTS

Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Clarence Junior Cunningham, B.Sc., M.Sc.

The Ohio State University

1964

Approved by

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CHAPTER I

NATURE OF STUDY

Adequate selection and placement of individuals have been concerns which are important both to the employer and employee. Only when competent individuals are selected and placed in positions where they can best utilize their talents will both the organization and individuals progress to their fullest extent. "Unless staffing decisions are realistic, employees may be assigned to positions where they are unable to utilize their talents to the fullest, and they would be unable to make their maximum contribution to the organization and to society."¹

Over the years, concerns about selection and placement had been of vital interest to most personnel workers. Along with our population growth and rising economic standards, complexity in our industrial and educational organizations had become commonplace. With this complexity came the need for more systematic procedures for the selection and placement of employees.

Much progress had been made in the direction of providing predictive information, particularly in the skill area.

From the assembly line operator or filing clerk to top management, there is scarcely a type of job for which some kind of psychological test has not proved helpful in such matters as hiring, job assignment, transfer, promotion, or termination. To be sure, effective employment of tests . . . in connection with high level jobs, usually requires that the tests be used as an adjunct to skillful interviewing, so that test scores may be properly interpreted in light of the background information about the individual.  

Additional progress needed to be made in the area of predicting effective management trainees and educational leaders.

The Ohio Cooperative Extension Service in 1964 had county Extension agents in each of the 88 counties throughout the state. From two to four Extension agents were employed in each county with each agent having a major responsibility in agriculture, home economics, or 4-H club work.

To select the individuals to do the work required with the Cooperative Extension Service, Ohio administrative personnel used a formal application and the personal interview. Value judgments were then made concerning the applicant's previous experience and his personality as apparent in an interview. Value judgments were drawn almost entirely from empirical observation by the administrators (who could be considered as eminently well qualified by experience), but the judgments were not based on research indicating any direction for selection or placement.

Research completed in other states relating to selection had attempted to identify factors for consideration in employment procedures with the Cooperative Extension Service. The most

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extensive work done with Cooperative Extension personnel was that completed by Nye in Missouri, Austman in Wisconsin, Warren in Oklahoma, and Sundaraj in Tennessee. These studies dealt primarily with the attempt to predict performance based on vocational interests, attitudes, personality factors, and numerous background data, such as social economic level of the agent's family, his parent's education, his previous participation in 4-H and FFA work, and other similar factors. Two of these studies dealt with an analysis of undergraduate and graduate scholastic records of Extension agents in an attempt to relate them to performance.

Selected variables in each of the above studies were indicated as related to performance. Two variables appeared to have most merit for consideration: (1) having had formal training in the field of education as an undergraduate prior to joining the Cooperative Extension Service and (2) having some personality

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7 Warren, op. cit. and Sundaraj, op. cit.
traits which relate to cooperation, aggression, endurance, and self-confidence. 8

Many of the other variables in the above mentioned research had been somewhat contradictory. For example, one study indicated a positive relationship between performance and scholastic achievement in college, 9 while another study indicated no relation between performance and intelligence. 10

Some related studies had been directed toward the description of leader behavior. 11 Two of the recurring dimensions of leader behavior which were identified in studies with military and educational people were the dimensions of initiating structure and consideration.

Behavior phrases descriptive of the dimension of consideration indicated "behavior indicative of friendship, mutual trust and respect and good 'human relations' between the leader and his group." 12 Similar phrases which related to initiating structure denoted "... behavior of the leader in organizing and defining the relationships between himself and the group, in

8  Nye, op. cit.
9  Austman and Duncan, op. cit.
10  Nye, op. cit.
defining interactions among group members, establishing ways of getting the job done, scheduling, criticizing, etc.\(^{13}\)

It appeared to the writer that the consideration dimension might be related to Nye's variable of cooperation.\(^{14}\) Likewise initiating structure had the same tone as Nye's variables of aggression, endurance, and self-confidence.\(^{15}\) Thus, this research indicated two variables which might be related to performance as a county Extension agent.

Most research dealing with the prediction of performance had been limited by an inadequate criterion measure of success. A new instrument for measuring performance in Ohio provided a new stimulus for further research.

During 1961, the Ohio Cooperative Extension Service developed a diagnostic forced-choice system for evaluation of its county Extension agents.\(^{16}\) This instrument was developed in an effort to minimize the bias any supervisor could exert when evaluating an individual agent's performance.

This evaluation system was currently being used for salary determination, promotion, transfer, or dismissal from the staff. Thus, administrators considered it a valid measure of performance.

In the development of one sub-part of the forced-choice instrument,

\(^{13}\)Ibid.
\(^{14}\)Nye, op. cit.
\(^{15}\)Ibid.
it was evident that the two most important dimensions were those of interpersonal relations and programming. These two dimensions may be equated with the leader behavior dimensions of initiating structure and consideration. If the two most important dimensions of performance were similar to the leader behavior dimensions, it was perceived as being possible to develop an instrument dealing with the two leader behavior dimensions to better identify and place potential employees with the Ohio Cooperative Extension Service.

Purpose of Study

The purpose of this study was to develop an instrument which measured the leader behavior dimensions of consideration and initiating structure which could be used as a self-description instrument as well as an instrument for superiors to describe their subordinates. The instrument was utilized to determine whether the leader behavior dimensions were related to performance in order for the instrument to be used in selection and placement of county Extension agents.

Objectives

The specific objectives of this study were to:

1. Develop a scale to identify the leader behavior dimensions of initiating structure and consideration among Extension staff members which was sufficiently general to apply to potential staff members.

2. Measure the presence among county Extension agents of the two dimensions of leader behavior, initiating structure and consideration.

3. Determine differences in the personnel performance level of staff members according to the relative presence or absence of the leader behavior dimensions of initiating structure and consideration.

**Logical Structure**

Extension work is an out-of-school system of education in which adults and young people learn by doing.

It is a partnership between the government, the land-grant colleges and the people, which provides service and education designed to meet the needs of the people.

Its fundamental objective is the development of the people.\(^{18}\)

The above quotation partially summarized the purpose and nature of the Cooperative Extension Service. To achieve these purposes, the organization must allow for much flexibility. When an organization has flexibility, it is important to have staff members who are qualified to create a favorable climate in which education can take place.

In order to develop and carry out Extension programs, there had been some sub-divisions of program emphasis. Needless to say, since Extension was oriented to agriculture and home economics, the two major technical subject matter emphases were

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agriculture and home economics. The third major phase was the youth program, of which 4-H club work was the most important part. The youth program encompassed both agriculture and home economics.

In addition to having three major areas of emphasis within the program, and with an Extension agent assigned to each area, there was an attempt to develop in every county a single Extension program rather than three separate entities. Many people believed it was better for the program to be geared to the needs of the entire family rather than approaching the needs of a family from three different directions.

The paradigm in Figure 1 gives an indication of some interactions which take place as the county Extension agent approaches his job within the county. Obviously any changes which might result within the area of concern will either be the result of efforts shown by the people who are already part of the situation, or by the agent in the specified position, or a combination thereof.

A new agent in a county must work with the present county workers and the lay people residing in the county. In the paradigm one can notice the major group processes with which the agent must work. This includes planning, with the aid of lay people, meaningful and purposeful educational programs which will be based upon the needs of the people if the programs are to be valuable. The program must also be based upon the interests of the people in order to secure the participation in the voluntary
Further, the agent along with the people must execute and evaluate the program which they have planned.

Fig. 1.—Paradigm of Extension agent function.
The agent who was employed in a new county was confronted with the presence of many attitudes, interests, understandings, abilities, and appreciations on the part of the lay people in the county and also on the part of the staff with whom he was working. Likewise, he carried to the new county certain attitudes, interests, understandings, abilities, and appreciations which influenced his decisions and directions. The new agent and the people in the county interacted in the process of planning, executing, and evaluating programs to the extent that both tended to change in certain ways. Neither the lay people nor the agent remained as they were before this interaction. However, this change takes place slowly.

Lay people expected some type of leader behavior to be exhibited and exerted by the county Extension agent in an effort to carry on an effective educational program in the county. The specific type of leader behavior needed in counties has not yet been identified.

Research completed by the Bureau of Business Research at The Ohio State University indicated that two dimensions, those of initiating structure and consideration, were present when leader behavior was described by subordinates and peers.19 An Extension agent was confronted daily with the need to work with people. In addition, agents also faced the reality of needing to develop and implement educational programs. These two situations

19 Stogdill and Coons, op. cit.
indicated that agents must also possess, to some degree, these two dimensions of initiating structure and consideration.

The success of a county educational program might be dependent upon the varying combinations of the level of initiating structure and/or consideration behavior present on the part of any two agents in a county. Some administrative personnel felt that when all agents had similar leader behavior the best agent team to conduct a program would be realized. Others felt it better to match opposites so the total program would be more effectively conducted. If consideration and initiating structure were leader behavior dimensions of county Extension agents, then the ability to measure these dimensions should be helpful in identifying potential employees. This measurement might also be valuable in placing new employees with other agents with whom they could work most effectively.

The preceding description and analysis of an Extension agent's job and how the measurement of leader behavior patterns of agents might be useful in selection and placement of agents was a simplification, but true statement, of the total situation.

**Hypotheses**

Assuming a scale could be developed to measure two dimensions of leadership, and in keeping with the preceding framework, three hypotheses are presented.

1. Extension agents who are "high" on both leader behavior dimensions of initiating structure and consideration perform at a higher level of competency than other agents.
2. The relationship between agent performance and level of initiating structure and consideration is similar for the agricultural, home economics, and 4-H agents.

3. The most effective Extension agent teams are those which have pairs of agents whose basic leader behavior pattern is different as measured by level of initiating structure and consideration.

Design and Methodology

The overall design for this study consisted of the utilization of a system of measuring the two leader behavior dimensions of initiating structure and consideration among all Ohio extension staff members on whom a performance evaluation measure had been completed. These staff members were then classified into a two by two table grouping according to whether they were (1) high on both consideration and initiating structure leader behavior dimensions, (2) high on initiating structure and low on consideration, (3) low on initiating structure and high on consideration, or (4) low on both leader behavior dimensions. These four groups were then compared for any significant difference between the groups on their personnel performance evaluation level. Significant differences were calculated for the total county staff and each agent position. Mean scores were also computed for similar groups of the 4-H and home economics agents based on the overall leader behavior classification of the agricultural agent in the same county.
The more specific design and methodology was as follows:

Development of Forced-Choice and Numerical Instrument

Forced-choice instruments have been used for many years in some form starting probably with the Kuder Preference Record. The particular system used in this study consisted of development of discrimination and preference indexes as a guide to developing a series of dyads and tetrads.

The discrimination index was a measure of how much an item distinguished between two populations—commonly the most and least effective in something. The preference index was a measure used to identify statements which, on general appearance, were liked equally well by a describer.

Statements were matched into dyads or tetrads. In the case of tetrads four statements were combined together based upon a certain combination of discrimination and preference indexes.

The development of a specific forced-choice format was the first step in this study. The instrument was designed to measure the leader behavior dimensions of initiating structure and consideration. Statements for the development of this instrument were secured by adapting statements from already existing questionnaires such as the Leader Behavior Description Questionnaire (LBDQ) and the Leader Opinion Questionnaire which were developed by the Bureau of Business Research at The Ohio

State University. These instruments had statements which reflected the two dimensions which were of concern in the research. The following steps were also taken in the completion of this forced-choice instrument:

1. Eight members of the Extension supervisory and administrative staff were asked to sort the phrases into the two leader behavior dimensions. Placement of a phrase in one of the two leader behavior dimensions by five of the eight supervisory staff members was necessary for further use.

2. An instrument was developed of the remaining phrases which when completed, provided data for computation of discrimination and preference indexes. The check list consisted of two major parts—one on each leader behavior dimension.

Considering the initiating structure phrases, the supervisor was requested to first think of an agent who was high on this dimension. The extent which each statement described the agent selected was indicated by the supervisor on a five-point scale.

The supervisor checked each statement by indicating the extent it was descriptive of an agent considered as low on initiating structure. A similar procedure was used with the consideration leader behavior statements.

3. From the above results, a discrimination index (DI) and a preference index (PI) were computed.

Stogdill and Coons, op. cit.
4. The final completed instrument included both a level section and a profile section. The level section contained phrases of equal preference values but varied in discrimination values. There were four positive phrases in each tetrad which was the most desirable forced-choice format as identified by Berkshire and Highland and reported by Lanman and Remmers.²²

In the level section each tetrad consisted of phrases representing only one dimension, but with varying discrimination values as indicated above. There was an equal number of tetrads of each leader behavior dimension.

The profile section contained items which were equal on the preference index and also on the discrimination index. Research done by Bartlett indicated that the latter type scale was more usable for self-description indexes.²³ The profile section dyads contained one item from each leader behavior dimension.

In addition, the level section had added to it a five-point numerical scale which meant that three different scales were developed.

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Validation of Forced-Choice
and Numerical Instrument

The forced-choice instruments were validated by comparing the results of their administration with the results of the short form of the Leader Behavior Description Questionnaire (LBDQ). The latter instrument was a rating method of describing leader behavior which was developed by the Bureau of Business Research at The Ohio State University. The validation of the new instruments necessitated having a group of 41 supervisors, administrators, and county Extension agents complete both the Leader Behavior Description Questionnaire and the three Forced-Choice Leader Behavior Questionnaires, describing the "ideal" leader. The ideal leader concept was used so that a common image was maintained while completing all forms. An analysis of the relationship between the LBDQ and the new instruments was then conducted. This was done by using the Pearson product moment correlation method.

Classification of Agents

Each Ohio Extension agent who had completed at least one year of tenure by October 1, 1963, was asked to describe his own leader behavior on the validated instrument. This consisted of 197 individuals of the 236 employed as of that date. The agent's immediate supervisor was also requested to describe the agent's behavior.

24 Stogdill and Coons, op. cit.
The results of the Forced-Choice Leader Behavior Questionnaire with numerical scale [FCLBQ (numerical)], as described by the agents about themselves, were used to classify the agents into four groups. The results with supervisors as describers were used to classify agents into a similar set of four groups. This classification of agents is described in more detail below:

Each agent was identified as above or below the median on each leader behavior dimension. It was possible to place each agent into one of four groups.

1. Above the median on initiating structure and consideration.
2. Above the median on initiating structure and below the median on consideration.
3. Below the median on initiating structure and above the median on consideration.
4. Below the median on initiating structure and consideration.

This design is evident in Figure 2.

<table>
<thead>
<tr>
<th>+ Initiating Structure + Consideration</th>
<th>- Initiating Structure + Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Initiating Structure - Consideration</td>
<td>+ Initiating Structure - Consideration</td>
</tr>
</tbody>
</table>

Fig. 2.—Four leader behavior classifications of agents.

The development of the classification shown in Figure 2 was completed using all agents combined, but it was possible to
analyze each agent position by extracting just the agents in the position desired.

Statistical Analysis

Following this classification, personnel performance ratings were identified for each individual in each cell as classified in the previous section. These scores were obtained from the use of the diagnostic forced-choice appraisal system with Ohio county Extension agents. A raw score which had been converted to a standard score, $T$, was available on each agent. Utilizing these data with each group classification, an analysis of variance was completed to identify any significant differences in performance among the various classifications.

A $t$ test was used in determining any significant difference between means of two groups on selected cases of the data.

The five per cent level of confidence was the probability level which was used in determining whether the differences in performance were significant.

Limitations

Most research in the social science field has some limitations since it deals with people. This limitation was caused by the fact that we do not want to, nor can we, completely control the human being. In addition to this general limitation, this study was limited in the following ways:

1. The study was limited to Ohio since there was a need for a uniform performance scale.
2. The analysis of the newly developed instrument was limited to present employees since the small number of newly hired employees would necessitate conducting the study over at least a five-year period to have a sufficient number on which a performance rating was available.

Basic Assumptions

The development of this study was based on the following assumptions:

1. Leader behavior can be measured adequately through the use of a scale type instrument.
2. Basic leader behavior patterns of initiating structure and consideration vary only slightly after college graduation.

Definition of Terms

In order to avoid confusion which might arise in the use of some words not frequently written and in the use of abbreviations common to this study, the writer had defined the following:

Ohio Cooperative Extension Service: An educational organization which was an integral part of The Ohio State University and was the educational arm of the United States Department of Agriculture. Through the county Extension agents, with the assistance of some specialized help, educational programs were developed in everyone of Ohio's 88 counties.

Diagnostic forced-choice evaluation system: A formal system for the evaluation of county Extension agent performance in Ohio. It was developed in a manner which forces the describer
to choose two statements most like the person being described from the four in each tetrad.

Consideration: One dimension of leader behavior which has been factor analyzed out in several studies. It was defined as referring to behavior indicative of friendship, mutual trust, respect, and warmth in the relationship between the leader and members of his staff.

Initiating structure: Another factor of leader behavior defined as the leader's behavior in delineating the relationship between himself and members of the work group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and methods of procedure.

LBDQ: The Leader Behavior Description Questionnaire was published by the Bureau of Business Research at The Ohio State University. It was a reliable measure of the preceding two dimensions of leader behavior.

Forced-choice: Forced-choice refers to a technique of scale building. The words forced-choice imply that a rater using a scale of this nature was forced into making some decisions.

Preference index (P.I.): A measure of how attractive a statement or phrase was to a group of people. A preference index was used in the development of tetrads so all four phrases would be equally appealing.

Discrimination index (D.I.): A measure of how well a statement or phrase distinguished between a high and low criterion group. In this study the discrimination index criterion group
was Extension agents who were high or low on two dimensions of leader behavior. The index was used to establish the tetrads so two discriminating phrases would be in each tetrad.

Halo effect: An effect which was present when people rate others. If a person being rated was generally excellent, then the rater tended to give this person excellent markings on all sub-parts even if not accurate. The rater saw the person being rated as always performing at the same level.

FCLBQ: The questionnaire developed in this study which was strictly the forced-choice instrument. It had 16 tetrads of phrases and each tetrad had a possible range of scores from zero to two. The tetrads had four positive type phrases with approximately equal preference indexes, but two of the phrases were more discriminating than the other two.

FCLBQ (numerical): The same questionnaire as the FCLBQ with the addition of a five-point numerical scale. Thus, possible scores on each tetrad were zero to ten.

FCLBQ (dyad): A tentative questionnaire composed of 12 dyads. Each dyad contained one phrase in each leader behavior dimension. Each phrase had equal preference and discrimination indexes.
CHAPTER II

RELATED SCIENCE AND PRACTICE

The related science and practice was rather extensive in this study. In screening the knowledge which contributed to the development of the study, there were three distinct areas of concern which are reviewed in this chapter. They are:

Personnel administration in the Cooperative Extension Service

Leader behavior and its description

Instrument design for use in selection and placement

**Personnel Administration in the Cooperative Extension Service**

The basic purpose of the Cooperative Extension Service had been one of helping families better utilize their resources to make for a more satisfying life. The subject matter content for accomplishing this was agriculture, home economics, and related fields. Since Extension always placed emphasis on education to meet the needs of families, it had, by necessity, many local county educational programs rather than a uniform state or national program.

In a situation of this type, which required capable individuals to plan and implement effective local programs, it became increasingly important to secure the proper personnel for
effective operation of the Cooperative Extension Service. In addition to the need for highly qualified staff, personnel administration was more important in a decentralized organization such as Extension than in many centralized organizations. Personnel administration has been identified as "... that aspect of management which is concerned with the employment of workers; the organization of workers into informed, efficient, and interested groups to carry out the purpose of the organization; and the development and administration of policies affecting their well being as workers."¹

As the scope of Extension programs has expanded, there has been an accompanying increase in the size of the staff. As a result of this increase, there could be less complete communication and less understanding of common purposes. Working relationships among staff members could become a problem if proper working teams were not established. These concerns prevent the organization and individuals from reaching maximum capacity and efficiency unless the personnel administration program of the organization was designed to help promote maximum efficiency.

Decision-Making in the Staffing Process

A major concern in the development of this study was the staffing process as a part of personnel administration. In

looking specifically at the staffing process, four basic decisions were involved:

1. The determination of personnel requirements relative to the positions to be filled and the qualifications desired in the individual to fill those positions.
2. Satisfactory sources of candidates to fill the positions. This requires a recruitment program.
3. Measurement of the candidate in terms of the position requirements and qualifications expected of the incumbent. This is the essence of the selection process.
4. An adequate placement program. This involves placement of the individual in a position suitable for him and communicating to him the duties, responsibilities, and other essential aspects of the working environment.

Although the first two decisions were central to the accomplishment of any other effective decision, the writer assumed present identification of job descriptions and present recruitment programs were adequate. Concern in this study, then centered on decisions three and four as identified by Johnson and McCormick. Although measurement and placement are considered as two separate decisions, they are in reality a single decision since measurement is finally made in relation to a specific position which is really a placement process. However, it is possible to do measurement for an organization in general if the job requirements of many positions are somewhat similar.

Within the Ohio Cooperative Extension Service a similarity in type of position did exist at the county level of operation. The county Extension agents had responsibilities which were very much alike, even though the subject matter they teach was different. For clarification, compare the agents trained in home

economics and those trained in agriculture. In subject matter there was much diversity. However, the basic responsibility was one of working with people in helping individuals or groups identify problems and arrive at an objective toward which individuals or groups might move with an educational program to solve these problems. In addition, both the individuals trained in home economics and agriculture were involved in planning for and teaching people in subject matter directed toward the solving of problems. This was one example of the many similarities among staff members; many others could be cited.

Since similarity did exist, the Ohio Cooperative Extension Service had used the following procedure in selection and placement:

1. Application blanks were secured from potential employees.
2. References were secured concerning the candidate.
3. Supervisors screened the application which included mostly background information and indications of interest.
4. If a candidate passed the screening based on the application blank information, he was then interviewed by a committee. At this point a further decision was made on his general acceptability to Extension.
5. Final placement was done by a specific supervisor and the staff in a county where the potential candidate would work.

A comparison of this procedure with that of personnel management people provided some insight into possible further needs in Extension in Ohio.

Pointed out in an Extension workshop were the following tools which might be used in selection.

1. Application form
2. Interview
3. College transcripts
4. Letters of recommendation
5. Testing devices
6. Physical examination
7. Personal contact with references
8. Interview with husband or wife if possible.

Other writers had identified a logical approach to selection of personnel:

1. The initial contact
2. The application forms
3. Checking the background of the applicant
4. The selection interview
5. Use of selection tests
6. Physical examination

Common to both of these were two specific areas not followed by the Ohio Cooperative Extension Service to any great extent. These were the physical examination and testing devices. Ohio had used one "testing" procedure in that potential employees must be academically capable of doing graduate work. This meant the cumulative point hour ratio as an undergraduate must be sufficiently high for admission to graduate school or the candidate must pass the Graduate Record Examination. The utility of this selection criterion might be questioned when in Ohio recent research showed only a slight relationship between undergraduate grades and performance level as a county Extension agent.

Although limited use had been made of testing procedures in Ohio, there was a continual need to have more information to

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4Johnson and McCormick, op. cit., p. 56.
aid in the decision-making process at the time of screening the
application and in the personal interview.

Knowledge Available to Aid in Decision-Making

There had been some research completed in Extension and
much in the field of public school education which was related to
helping make decisions in the staffing process. In the teaching
field there were a number of annotated bibliographies such as
Barr and Domas and Tiedeman. Getzels and Jackson indicated
800 additional studies have been compiled since the approximately
1000 titles were reported by Domas and Tiedeman in 1950. All
these studies were somewhat directed toward measuring or pre­
dicting effective teaching.

Looking specifically at selected research which had some
value to Extension, one finds two general types. The first was
research dealing with an analysis of background data of educators,
and the second dealt with testing procedures used in selection.

Analysis of background data

A common research procedure dealt with the analysis of
undergraduate training and its relationship to performance as an
educator.

6A. S. Barr, "The Measurement and Prediction of Teaching
Efficiency: A Summary of Investigation," Journal of Experimental
Education, XVI, No. 4 (1948), 203-283.

7S. J. Domas and D. V. Tiedeman, "Teacher Competence: An
Annotated Bibliography," Journal of Experimental Education, XIX,
No. 2 (1950), 99-218.

8J. W. Getzels and P. W. Jackson, "The Teacher's Per­
sonality and Characteristics," Handbook of Research on Teaching,
Warren in his Oklahoma study was concerned with amount of training completed at the undergraduate and graduate level. His design was to compare the academic training of the top and bottom 15 percent of the staff members as identified by performance criteria. His criteria were salary adjustment, promotion, or discharge. Warren's results indicated the more successful Extension agents had less training in technical agriculture which conversely permitted them time to complete more mathematics, economics, communications, sociology, education, military science, and physical education.

Sundaraj in a research program in Tennessee went one step further than Warren and included average grade point earned in the subject matter areas which he analyzed. Areas considered at both undergraduate and graduate level included social studies, technical agriculture or home economics, and education courses. He found four factors significantly related to performance as an Extension agent. These were average undergraduate grade points earned, credit hours of undergraduate educational course work completed, average graduate grade points earned, and average graduate social study grade points earned.

The common factor in these two studies was the completion of some courses in education prior to employment as an Extension agent.

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9 Warren, "A Study of Some Training Factors Associated with the Success or Failure of Cooperative Extension Workers."

10 Sundaraj, "A Study of Relationships Between Selected Factors and Job Performance Ratings of Tennessee County Agricultural Extension Agents."
Sundaraj found a significant relationship between performance and scholastic ability, as measured by grades in college. A similar result was found by Austman and Duncan in their research in Wisconsin.\textsuperscript{11} Stauffer in Pennsylvania did not find any relationship between undergraduate grade point average and effectiveness as a county Extension agent.\textsuperscript{12} Assuming that scholastic ability as measured by grades was related to learning ability or intelligence, one would have expected Nye's study to have shown a relationship between performance and general learning ability.\textsuperscript{13} The opposite was true and this was one of Nye's five factors which had to be dropped from his instrument development. In all four studies cited, the criterion of effectiveness was much different, which may account for part of the difference in results. However, the writer concluded, based on two of the above three studies, that performance as an Extension agent was somewhat related to effectiveness in college as measured by grades.

Some research cited above indicated the possibility of other background factors being related to performance as an Extension agent. For example, Austman and Duncan reported a significant relationship between performance as an agent and

1. Experience in some other vocation.
2. The agent's confidence in his education as having prepared him for his work.

\textsuperscript{11}Austman and Duncan, \textit{Job Performance of Beginning New Cooperative Extension Agents in Wisconsin}.
\textsuperscript{12}Robert H. Stauffer, "Predicting Effective Agents," \textit{The Evaluator}, No. 21 (September, 1963), p. 3.
\textsuperscript{13}Nye, \textit{The Relationship of Certain Factors to County Agent Success}.
Testing procedures

In addition to the research on analysis of background data, the entire area of utilizing tests to identify information to use in selection and placement of personnel had undergone experimentation. The general test areas which had been researched most frequently were personality, interests, values, and mental ability. In selected cases, combinations of the above test areas were considered.

In the total field of education the measurement of personality had received much emphasis. Yet Getzels and Jackson summarized most of the research in the following manner: "Despite the critical importance of the problem and a half-century of prodigious research effort, very little is known for certain about the nature and measurement of teacher personality, or about the relation between teacher personality and teaching effectiveness."  

We know little about personality measurement for we really don't understand what we mean by personality. Getzels and Jackson point out three common categories or definitions of personality:

1. Behavioral definitions, that is, personality is the totality of a person's usual behavior;
2. Social-stimulus definitions, that is, personality is defined by the response made by others to the individual as a stimulus;
3. Depth definitions, that is, personality is the dynamic organization within the individual that determines his unique behavior.  

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14 Getzels and Jackson, op. cit., p. 574.
15 Ibid.
Since there was no single concept of personality, it was difficult to measure personality.

Other problems such as instrument selection to measure personality needed to be faced, but measurement had been tried. In fact, many types of psychological tests were available which could conceivably be considered as some measure of personality.

In Extension several approaches had been made to utilize personality tests as a measure to predict potential effectiveness as a county Extension agent. A major research project completed was Nye's in Missouri. The design was to use a paper and pencil inventory to determine the difference between top performing agricultural agents and college students who did not become agents. The inventory contained four dimensions in addition to one on personality: vocational interest, general learning ability, attitudes, and background and training. As mentioned previously, the dimension of general learning ability was dropped since it did not distinguish between the high performing and the non-agents, nor the low performing agents.

For a criterion of performance, the judgments of a combination of administrative personnel, lay people, and local level colleagues was used. Nye found that the four remaining factors explained 63 per cent of the variation in county agent effectiveness. The most significant single factor was personality.

16 Nye, op. cit.
The instrument developed by Nye for county agricultural agents was being cross validated in several states for the last six years. Results of this cross validation were presently becoming available.

In Pennsylvania, Stauffer found no difference in three groups of agents when grouped on performance as an Extension Agent and the Nye Inventory. This was true with both a short and long form of the inventory.

The data collected in Ohio and analyzed by Frutchey in the Federal Extension Service showed only a slight relationship between the Nye Inventory and performance as a county agent in Ohio. Using the long form a correlation of .25 was found while a correlation of .15 was found using a short form.

Frutchey found 109 of over 400 questions differentiated between the top and lower one-third on agent performance when an item analysis was conducted. The use of this instrument in future research may prove helpful in staffing decisions.

The Nye study, which was the most comprehensive completed in Extension, measured four variables: personality, vocational interest, attitudes, and background and training. Yet even this comprehensive research program had not proven consistent from state to state when cross validated.

Certainly some phase of the research in the area of testing needed further consideration. There may be a need for a

17 Stauffer, op. cit.
consistent criterion, a need for a more adequate instrument, or perhaps more basic theoretical concepts.

Problems in testing as an aid in decision-making

When one observed the great difference in results from cross validation of the Nye inventory, an apparent answer may be "the criterion of an effective agent was not the same." When observing the research completed previously, many criteria were evident which had been used to measure performance.

The most frequent criterion of teacher effectiveness studies is the rating. Teachers and student teachers are rated by critic teachers, supervisory teachers, principals, superintendents, pupils, the experimenters themselves, or almost anyone else who is for one reason or another believed capable of expressing an opinion.19

It appeared that unless some agreement could be achieved about the concept of effective performance, there would be a continual movement to various evaluators since no one knew the right criteria to use in accurately evaluating an individual.

Less subjective ratings might be proposed, such as changes in behavior of the learner. Another might be the amount of increase in knowledge or change in practices as a result of having been with a certain educator. However, in education the learner cannot be regulated like the rat or the test tube; so we really do not know what changes can be attributed directly to the educator.

19Getzels and Jackson, op. cit., p. 575.
The forced-choice rating scale had been one method of making performance rating scales less subject to bias of the rater and more valuable in securing an adequate measure of performance. It was this type of instrument which was used by the Ohio Cooperative Extension Service, that stimulated further research on predicting effectiveness of Extension agents. The instrument was designed to measure performance with the evaluator describing the agent and not measuring his performance against an ideal performance, as this factor was built into the instrument.

To accomplish the development of an instrument which eliminated much personal bias, it was necessary to have the supervisory and administrative staff assist in the development of the original instrument at which time the "effective performing agent" was identified. This was accomplished by comparing highly effective and highly ineffective agents on each phrase in the instrument.

The new personnel evaluation system was considered sufficiently valid with two external criteria (peer nominations and supervisory paired comparisons) for it to be used as a guide in salary determination, advancement, and dismissal. Although not perfect, the performance evaluation system in Ohio did lend itself as a criterion to be used in research dealing with selection and placement.

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In addition to the usual criterion problem in testing, there was a major problem of instrument selection. References on tests and measurements indicate hundreds of tests for many uses. Although many tests had been available, they were frequently used on a "let's try this one" rather than some sound logical procedure or theoretical framework to justify their use. Unless we have "... actual facts indicating how well a group of tests identifies the superior employees, no intelligent judgment can be made as to whether or not the particular test should be used."

In all cases where tests are selected from those already available, it is necessary to validate their use to a specific audience. The research in Extension using tests as a basis for decision-making had been directed to selecting one test which might work and then trying it without much basis for the selection.

This leads to a third concern in looking at problems in testing as a means to help the decision-making process of selection and placement of personnel. Ryan pointed out in the teaching field, a major concern over the lack and almost total disregard of systematic conceptualizing, or theoretical models.

Little had been done in bringing together much knowledge in the area of theory in teaching until the book published by the

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American Education Research Association was available. More work needs to be done in developing and using specific theories. This was certainly true with the research in the field of Extension Education.

Getzels and Jackson point out some concern about the use of theory:

The Committee concluded that only by working within the context of sound theory can one hope for useful, relevant, and widely applicable findings. They suggested that any teacher characteristic involved in research study should be submitted to the question: 'On what grounds in learning theory or social psychological theory (or any other body of theory) can we justify hypothesizing that this characteristic of teachers is related to a given effect?'

Although this writer's study was not based entirely on a theoretical base, there was some framework from which the dimensions to be researched did arise.

**Leader Behavior and Its Description**

**Concepts of Leader Behavior**

Who is a leader? One writer had identified five possible ways to define a leader:

1. An individual who exercises positive influence acts upon others.
2. An individual who exercises more important positive influence acts than any other member of the group or organization he is in.
3. An individual who exercises most influence in goal-setting or goal-achievement of the group or organization.
4. An individual elected by a group as a leader.

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5. An individual in a given office or position of apparently high influence potential.\textsuperscript{25}

Although this may not be an exhaustive list, it was within the fifth definition of a leader that this study was developed. It is, however, desirable to iterate the hope of most organizations that the leader identified in the last definition will fulfill to a certain degree the behaviors described in the definitions of the first three.

Concern in this study was expressed with leader behavior and not leadership. Halpin has identified a distinction between the two:

The distinction between "leader behavior" and "leadership" is more than merely academic, for which term we choose determines the kind of questions we ask, and for this reason also dictates the form our answers will take. For example, to ask "What is leadership?" presupposes the existence of a specified capacity in regard to "leading." This question predicates within the individual an attribute or inherent characteristic of behavior, and implies further that this attribute, like intelligence or clerical aptitude, functions with equal force in a variety of situations. A question so phrased also suggests that individuals differ in their capacity, or potential, for "leadership" and that this potential is probably determined by intrinsic factors in the person. It is an easy step from this position to the inference that this potential is identifiable and hence measurable—that some individuals possess it in a high degree and others in a lesser degree; and that if we can only discover how to measure it, we shall be able to screen the "leaders" from the "non-leaders." Those who hold this view tend to set little store by the prospect of training individuals in leader-behavior skills, for when leadership is conceived principally as an inherent capacity or potentiality, there is meager justification for devoting time to training for it. The chief personnel task becomes one of discovering the proper formula for identifying and measuring leadership "ability."

In contrast, consider the concept of "leader behavior" and what it implies. First of all, it focuses upon observed behavior rather than upon a posited capacity inferred from this behavior. No presuppositions are made about a one-to-one relationship between leader behavior and an underlying capacity or potentiality presumable determinative of this behavior. By the same token, no a priori assumptions are made that the leader behavior which a leader exhibits in one group situation will be manifested in other group situations. It may be; but the answer to this question is left open for empirical verification rather than incorporated as an implicit assumption into the very terminology we use to define our problem. Nor does the term "leader behavior" suggest that this behavior is determined either innately or situationally. Either determinant is possible, as is any combination of the two, but the concept of leader behavior does not itself predispose us to accept one in opposition to the other. 26

Even within this clarification of the idea of leader behavior, there were many concepts of leader behavior.

A common interpretation of leader behavior or style was the traditional concept of autocratic, democratic, and laissez-faire leader. This concept had become a vital part of our language and had directed our thoughts and actions. Charters indicated that in public school administration very few books fail "... to invoke the distinction between autocratic and democratic leadership but educational research in which the distinction is applied is relatively scarce." 27

Research completed on the autocratic-democratic concept had been directed toward the extent of staff participation in

decision-making. In public school work Charters cited two studies, the results of which, indicated that a positive relationship existed between teacher participation in decision-making and their satisfaction with the school. Charters questioned the studies in his summary statement, "... these studies could not certify that participation caused satisfaction rather than the reverse or that the relationships were not spurious concomitants of other variables."28

Freely had we espoused the commitment to the democratic concept of leadership. Freely had we written concerning the conviction to support this concept. Reason had tended to support the democratic approach to leadership problems. Although the democratic concept on reason alone does seem desirable in our society, the concepts did not appear to have proved heuristic for research on learning more about leaders and leader behavior.

Charters expressed clearly the concern about the democratic-autocratic concept with his evaluation of research done in this area. "But perhaps we can expect no more from concepts as value-laden as 'autocratic' and 'democratic' administration. After all, research on central components of an ideological system is not likely to be impartial."29

28 Ibid., p. 783.
29 Ibid., p. 785.
Another idea about leader behavior was the traditional concept that as a leader of a group, the leader normally has two goals:

1. Group achievement: measured in respect to how well the group accomplishes the group task.
2. Group maintenance: measured by the extent to which the group remains intact as a group; gauged in respect to "morale," "cooperation" among other group members in working with one another, and other indices of job satisfaction.\(^3\)

While these goals were basic to group action, additional concepts of leader behavior had evolved. Two concepts will be reviewed which had developed further understanding of leader behavior. The first of these was the initiating structure—consideration concept which developed from research completed by the Bureau of Business Research at The Ohio State University.\(^3\)

A second concept was the nomothetic, idiographic, and transactional leader concept which was part of a theoretical model presented by Getzels and Guba.\(^3\)

The Ohio State Leadership Studies\(^3\) were initiated in 1945, without a complete definition of leadership or a sound theoretical framework. Through the efforts of interdisciplinary studies and application of related theory, there was developed evidence which gave more insight into the field of leader behavior.


\(^3\) Stogdill and Coons, op. cit.


\(^3\) Stogdill and Coons, op. cit., p. 1.
The development of the research in Ohio was first directed toward the description of leader behavior. The evaluation of the leader behavior followed the studies dealing with description of leader behavior.

Exhaustive development went into the identification of tentative dimensions of leader behavior and possible descriptive items to measure the behavior. In one factorial study of the initially developed form to measure leader behavior, four factors were identified. These were consideration, initiating structure, production emphasis, and sensitivity. The consideration factor accounted for 49.6 per cent of common variance and initiating structure 33.6 per cent, while the other two factors were each below 10 per cent.

Attempts to improve the contribution of the two factors by increasing the number of items for their measurement proved unsuccessful. Efforts were therefore concentrated upon the task of developing the best possible short scales for describing consideration and initiating structure.

An analysis of the items descriptive of these two factors makes possible a definition of each:

Initiating structure refers to the leader's behavior in delineating the relationship between himself and members of the work group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and methods of procedure. Consideration refers to behavior

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indicative of friendship, mutual trust, respect, and warmth in the relationship between the leader and members of his staff.36

The research noted and other research reported by several authors in previously mentioned publications edited by Stogdill and Coons have all indicated the two dimensions of initiating structure and consideration as significant dimensions which can be described.

Charters reported one study which found a parallel between the results of statistical analysis of initiating structure and consideration and the social psychological concept of goal achievement and group maintenance.37 It seemed logical that initiating structure and group achievement might have something in common as might group maintenance and consideration. Certainly the research done by Halpin and Winer, as reported by Charters, would substantiate some relationship between these two concepts.

The field of school administration produced another concept of leader behavior. This was in the theoretical model describing role structure of an organization designed by Getzels and Guba.38 At the possible expense of complete understanding the writer will present a brief review of this model and its apparent similarity to the concepts discussed previously.

The model is presented in Figure 3.

37Charters, op. cit., p. 785.
38Guba and Bidwell, op. cit., p. 5.
Each segment of the model is described in some detail in Administrative Relationships. The three basic styles of leaders were identified as nomothetic, idiographic, and transactional. Since these styles were of interest to the development of concepts about leader behavior, the remaining portion of the model will become clear in relation to them.

The nomothetic leader stresses the requirements of the institution and the conformity of role behavior to expectations at the expense of the individual personality and the satisfaction of needs. He perceives authority to be vested in his office, and he maintains the scope of his interactions with his subordinates in as diffuse a manner as possible. He places heavy emphasis on universalistic rules and procedures, and he imposes extrinsic sanctions whenever feasible.

The nomothetic leader had one concern and that was one of excellence as he perceived what was expected of the group. This leader could be considered similar to the leader whose major task was group achievement, with little respect for group maintenance.

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39 Ibid.
40 Ibid.
41 Ibid., p. 11.
The idiographic leader, in contrast, stresses the demands of the individual's personality, his need structure, and need motivated behavior. Here organizational requirements tend to be minimized. This leader views his authority as delegated, and he tends to maintain highly specific interactions with his subordinates.\(^\text{42}\)

The idiographic leader was concerned mainly with the satisfaction of the followers, he had little concern for organizational expectations. One might perceive this leader as mainly interested in group maintenance. Either the nomothetic or idiographic leader can accomplish the desired goals, but the behavior to do so will vary considerably.

The transactional leader is an intermediate type lying between the nomothetic and idiographic extremes. He achieves a balanced perspective on the demands of the institution and the requirements of the people who inhabit it, and he is capable of shifting his emphasis from one to the other as the occasion arises.\(^\text{43}\)

This leader behavior concept presents the idiographic leader who was directed toward group maintenance, while the nomothetic leader was goal achievement directed. The transactional leader was the one who, in a sense, had a balanced perspective or who can easily move from one to the other as the need arises.

This concept also resembled the concept of initiating structure and consideration in that "... both distinguish between leaders principally oriented to the institution and the task and leaders oriented to personal relationships. The schemes are similar too, in that they regard the effective leader as one

\[^{42}\text{Ibid.}\]
\[^{43}\text{Charters, op. cit., pp. 786-87.}\]
who can reconcile the fundamental conflict between the require­ments of the system and the needs of the individual."\(^{44}\)

One research difficulty in either concept revolved around the question of who could identify the true behavior of an indi­vidual. This will be discussed further in the following section which deals with measuring behavior, but one study had shown perception of self and others was more important than what really exists.\(^{45}\)

Since the leader behavior concepts presented appear very similar, it can be concluded that some distinct dimensions of leader behavior do exist. Since one concept was developed empirically and the other deducted from related theories, these similarities are substantiated much more. However, in both con­cepts, this writer had been concerned mainly with the identifi­cation and description of leader behavior. Leader behavior in the abstract was not meaningful, but it can gain meaning as one relates to the task to be accomplished and the changes which occur as the result of the leader's behavior.

Halpin had presented a paradigm concerned with adminis­trative behavior, which although from the related field of edu­cation, had merit for all individuals in a leader role.\(^{46}\) The paradigm was "... devised to facilitate research on adminis­

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\(^{44}\)Ibid., p. 787.


trative behavior and to contribute to the formulation of a use-
ful theory of administration." 47

Knowledge in the field of Extension Education had not
progressed to the place where theory existed in the field, there­
fore it was paramount to explore the concepts, paradigms, and
theories of related disciplines.

Halpin's basic paradigm as presented in Figure 4 is a
condensed version of the more complete paradigm. The more com­
plete paradigm included more sub-parts and a factor indicating
change in time.

As evident from Figure 4, Halpin's paradigm contained
four basic "panels." Each of these panels was in some way related
to another but not always directly. These panels as described by
Halpin are:

Panel I: The Organization Task: defined in terms of
"desirable" behavior or behavioral products.

Panel II: Administrator Behavior: the behavior of the
officially designated leader in his adminis­
trative role.

Panel III: Variables Associated with Administrative
Behavior: these include behavior on the part
of group members other than the leader,
products of the behavior of group members,
specified conditions under which the adminis­
trator and other group members are required to
operate, patterns of administrative organi­
zation, and community factors that bear upon
the formal organization. It is stipulated
that these variables be reported objectively
and measured reliably.

Panel IV: Criteria of Administrator "Effectiveness:"
Two levels of criteria are postulated:
(1) intermediate criteria such as evaluations
or ratings of the leader's behavior, and

47 Ibid., p. 196.
Panel I  The Task

Panel II  Behavior of the Administrator

Panel III  Variables Associated with Administrator Behavior

Panel IV  Intermediate Criteria of "Effectiveness" (A)

| Changes in Organization Maintenance (B)₁ |
| Changes in Organization Achievement (B)₂ |

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Fig. 4.—Condensed version of Halpin's paradigm.  

48 Ibid., p. 192.
(2) outcomes of behavior measured in terms of organization products and changes in these products.49

The inclusion of Panel I identified the need for knowing the behavior expected to effectively complete the task of the organization. This was the behavior which was needed to bring about the desired changes in the organization. The expectation of "desirable" behavior certainly was always present, but not always perceived the same by all individuals.

Panel II was, as indicated, the behavior of the administrator. This, in the more complete paradigm, was subdivided into three parts: (1) the administrator's perception of the organization's task, (2) his behavior as a decision-maker, and (3) his behavior as a group leader.50 Obviously the first part was less accessible to observation, but could be a major concern if this perception differed considerably from other people's perception of the task.

Panel IV included both intermediate and "ultimate" criteria. These criteria could be measured only in terms of the expected behavior as identified in the task in Panel I. The intermediate criteria, such as evaluations of the administrator, were normally weak since it was difficult to determine whether the changes in the organization were attributable to the administrator. Thus the connecting line between the behavior of the administrator and the intermediate criteria is only a dotted line.

49 Ibid., p. 174.
50 Ibid., pp. 176-77.
Panel III contains the many variables which are associated with the behavior of the administrator, but which are not directly related to changes in the organization. Halpin classified these variables by three groups: administrator variables such as age, intelligence, training; intraorganization variables such as administrative structure; and extraorganization variables such as community pressures, financial support.\(^{51}\) When interpreting from the paradigm, one would see these variables as not being directly related to changes in the organization.

Looking further at the paradigm will help clarify the idea:

Note the direction of the arrows. The task defines the purpose of the organization and hence the change criteria of the Organization's Achievement are measured in respect to this task. Hence an arrow points from Panel IV to Panel I. The focus of the research is upon the administrator, and since the purpose is to predict changes in Organization Achievement from his behavior, the arrow from Panel II points to Panel IV. In Panel IV these flow lines have been split to show that it is preferable to go from II to IV-B and that if one goes through IV-A instead, it is still incumbent upon him to demonstrate that there is a significant relationship between IV-A and IV-B. . . . The crux of the problem is to predict events in Panel IV-B on the basis of the variables identified in Panel II. All other relationships are adjuvant.

Panel III variables are studied so as to increase the accuracy of the prediction made from variables in Panel II. Hence the arrow points from III to II. . . . This means that the selection of Panel III variables by "shot gun" method is out of order.\(^{52}\)

Much of the research completed had been in the area of Panel III variables by attempting to relate these variables

\(^{51}\)Ibid., pp. 188-89.

\(^{52}\)Ibid., pp. 191-92.
directly to the changes in the organization rather than through the behavior of the administrator.

This paradigm gave a framework to help in the thought process of identification of needed research which might be productive. Earlier in the chapter the writer identified the consideration-initiating structure and transactional leader concepts of leader behavior, which were derived from empirical and theoretical formulations. If these concepts can be adapted to Extension and placed on the administrative behavior concept as presented in Halpin's paradigm, then productive research might result from it.

Application of Concepts to Extension

The county Extension agent fulfilled the one definition of being an appointed leader within his county. Extension personnel were not administrators in the same sense as a school administrator, but an agent did function as a leader to develop and conduct effective educational programs. As such, he worked with many different groups of people.

The writer noted many similarities between each of Halpin's panels in relation to the Ohio Cooperative Extension Service. For example, the Extension task had been identified in a general way by the use of job descriptions, and the more specific behavior had been identified by individual position descriptions.

The agent's perception of the task should be somewhat similar to that which was identified in Panel I, for each agent
developed his own position description within certain limitations. If, then, his behavior as a decision-maker and group leader could be identified, it should be directly related to the tasks expected in the position as identified in Panel I.

If self-perception of the tasks required was similar to the actual behavior expected in the tasks, then both should in some way be related to criteria of effectiveness. The question, then: Is there a valid measure of effectiveness?

The question as to whether the Ohio forced-choice personnel appraisal system was a true measure of effectiveness could be discussed at length. Certainly the Ohio forced-choice personnel appraisal system could be classified as an intermediate criteria of effectiveness which is Panel IV-A in Halpin's paradigm. This was true since the forced-choice system was a rater system of describing the behavior of the Extension agents. As Halpin indicated this level of effectiveness must be shown to be related to changes in organization maintenance or achievement (Panels IV-B₁ and B₂) if the criteria were to be used. The writer would submit that this relationship had been established in two ways:

1. In construction of the evaluation system, all supervisors individually, but used as a composite, were involved in determining the discriminating items in the forced-choice instrument. This was done by identifying the agents most and least effective in making changes in organization maintenance and achievement. These agents were then described in the construction of the instrument.
2. The forced-choice appraisal results were currently being used to determine salary adjustments, promotions, and dismissals. Since this was the case, the changes in organization maintenance and achievement were certainly related to this intermediate criterion for only a "select" type individual was maintained on the staff and this affected the type of work which was conducted.

Certainly the presence of a new, relatively valid, criterion of effectiveness provided a heuristic base for further research.

Referring to Halpin's third panel the writer noted a direct similarity in Extension to that espoused for the school administrator framework. It was at this level where most research had been conducted in the Extension field.

This brief adaptation of Halpin's paradigm to Extension indicated that a major problem lies in the area of identifying the behavior of the agent as a decision-maker and group leader.

To accomplish this measurement of behavior, it was necessary to again refer to some scheme of measuring leader behavior. Since the previous discussion pointed out the many similarities in concepts of leader behavior, it seemed logical to proceed to a review of the present instruments used in measuring leader behavior rather than start on something entirely new. Reference was made to instruments which would be directed toward the concepts previously noted. The most widely researched and most used
instrument was the Leader Behavior Description Questionnaire (LBDQ) developed by researchers in the Ohio State Leadership Studies.53

Development and Utilization of LBDQ

The Leader Behavior Description Questionnaire (LBDQ) used most frequently consisted of forty items descriptive of leader behavior.54 Fifteen items had been identified as measuring initiating structure and another 15 measuring consideration.

These two dimensions of leader behavior were defined previously. The final instrument was the result of a number of different studies which grew from the initial one by Hemphill and Coons.55 In this study an attempt was made to measure nine dimensions of leader behavior. This and additional studies resulted in the development of the final 40-item questionnaire.

The LBDQ was relatively short and easy to administer. Each item was rated as to the frequency with which the leader engaged in the activity identified.

This LBDQ instrument was found to provide a good range of responses as identified by describers, both self and subordinate.56 The initiating structure factor had been found to

53 Leader Behavior Description Questionnaire (Columbus, Ohio: Bureau of Business Research, College of Commerce and Administration, 1957).
54 Ibid.
56 Ibid., p. 35.
have a Spearman-Brown corrected reliability of .83 while a comparable figure on the consideration dimension was .92. The instrument had consistently been shown to measure the same two distinct dimensions although the two dimensions had been shown to correlate at the .51 level.

In the case of aircraft commanders, the dimension of initiating structure was significantly related to performance on a number of factors weighing overall effectiveness. No significant relationships were found between the consideration dimension and performance.

In a school administrator study, the effective administrator was the one who had behaviors indicating high consideration and initiating structure.

These findings indicated that the LBDQ was a reliable instrument which measured two distinct dimensions of behavior. In some cases these dimensions were related somewhat to effectiveness in position.

However, three weak points were noted in the LBDQ. These included the susceptibility to the "halo" effect when being completed. Another was that all facets of behavior may not be

58 Halpin and Winer, op. cit., p. 42.
covered by the items included. The third was the problem of who can best describe or identify the behavior of the person under consideration.

With respect to the problem of evaluation "halo" one must face an almost certainly valid limitation in selecting items to describe leader behavior... One possible solution lies in the "forced-choice" format where items having equal preference value are paired, and where the respondent's task is to choose the one of an equally valued pair as most descriptive of the leader's behavior. 61

The weakness of not covering all facets of behavior was valid; this weakness was one which can be raised with any instrument.

The person most capable of describing behavior had not been completely answered. When behavior was being described with implications for performance certain bias effect was bound to be present, especially with the usual rating type scale. In one study "It was found that neither of the three groups—board members, staff, superintendents—adequately described the superintendent's behavior. The description of all three were needed to give a complete picture." 62

Certainly no final answer existed, but Stogdill and Shartle pointed out a valid observation.

When an individual describes his own behavior and is also described by an observer, which description is more accurate? ... It is apparent from the results ... that self-descriptions and descriptions by others are not in close agreement. This does not necessarily argue against the validity of self-descriptions. Research results have shown that subordinates who are not performing up to their

61 Hemphill and Coons, op. cit., p. 36.
62 Giesy, loc. cit.
own expectations tend to describe their superiors in less favorable terms, suggesting that descriptions by "others" need to be interpreted with as much precision as self-descriptions.\textsuperscript{63}

It appeared logical that a forced-choice format for description of leader behavior would tend to limit the amount of bias and so might be more valuable in self-rating than other types of instruments.

The concerns expressed about weaknesses of the LBDQ could be expressed relative to many rating techniques and so it behooved the researcher to utilize the research methods which most nearly avoided this type of criticism.

\textbf{Instrument Design for Use in Selection and Placement}

A rating scale is a device used to determine quantitatively or qualitatively the presence of some characteristics of people or things. The rating scale had been used widely in the social science field where concern was centered around the human element. Rating scales had been used often in measurement of personality factors, attitudes, and performances of workers or teachers.

Rating scales had generally been used with success in research, but were not used too successfully in determining performance nor in other uses where job opportunities or success

on a job where associated with the use of the rating scale. This varied depending on the kind of rating scale.

**Types of Rating Scales**

Guilford had presented the most accepted classification of rating scales as follows: numerical, graphic, standard, cumulated points, and forced-choice. 64

When concerned with rating scales and their use, Remmers had suggested five criteria by which the rating scale could be evaluated as a measuring device. 65 These criteria include—

1. Objectivity. The instrument should be able to provide data which are verifiable. The instrument should not be a function of the person using the rating scale.

2. Reliability. The same values should be present under comparable conditions, with all parts of the scale contributing equally to the total.

3. Sensitivity. Fine distinctions need to be evident about the objects under consideration.

4. Validity. The content should be relevant to a defined area of investigation and to some behavioral science construct and should be related to some other known variable.

5. Utility. Obviously the scale must be of some value to theoretical or practical issues and should be easily administered.

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Using the above criteria as a basis for evaluation, selected types of rating scales are reviewed briefly as to their possible use in this study.

Numerical

The numerical rating scales have appeared in many slightly different forms, but in all cases there was an assigned value to each category on an a priori basis. Normally, three to five categories are assigned to each statement. One example is: strongly agree, agree, uncertain, disagree, and strongly disagree. Or, one could use the three middle categories. Also at times only positive categories are used with corresponding numerical values.

Numerical scales are relatively easy to construct, easy to administer, and easy to score. This accounted for the wide usage of the particular type of scale.

A possible weakness was in whether the a priori scale values were really equal psychological intervals. This question does not appear to be answered completely as both points of view are expressed in the literature. "Likert found that scores resulting from these (arbitrary) weights correlate .99 with scores based upon the sigma deviate method." However, Remmers doubted that the a priori scales have equal intervals.

A major objection of the numerical scale was the lack of freedom from the "halo" effect and the ease of giving false information, which tended to limit its objectivity.

Graphic

The graphic rating scale provides a continuous straight line with some kind of word cues for the rater. It does not identify a specific numerical value between each word cue.

This type scale does provide the rater with much opportunity for self satisfaction since he feels he had the opportunity for more precise rating. More precision could be secured if one could justify the classification of precise intervals when numerical values are assigned. Certainly the question about equal intervals could be raised with this system as well as with the numerical scale.

The system could also be criticized for possible "halo" effect, falsification, and other response sets, all of which would limit objectivity.

 Forced-Choice

The forced-choice scale was a relative newcomer to the field of rating scales and differs in one distinct way. This scale was not an a priori kind of scale but was a psychologically scaled instrument requiring experimentation for its construction. 67

The basic concept of this scale was to place in units (dyads or tetrads normally) statements which appeared to be equally favorable, but half of which were really discriminating on the dimension under measurement.

The forced-choice instrument had been used primarily in rating performance since it was a type of scale which had been

shown to control the "halo" effect or other types of bias, especially leniency. The forced-choice design had also been shown to be valuable even with only short scales.

The major criticisms of the forced-choice scale were these: (1) Raters did not accept the idea for they could not tell which items were the "good" items; (2) Those being rated were unhappy for the system did not permit their knowing directly where they were weak; (3) The scale was costly and time consuming to build.

Remmers pointed out that the system was young and that much research was needed yet but the following conclusions could be reached:

(1) The ambiguity of the items has to a considerable degree achieved the original intent of the technique's rationale.
(2) Preference values are stable over time.
(3) Favorable statements in tetrads appear to yield higher validity than other block designs.
(4) Length of scale is only slightly related to its validity.68

Summary

The forced-choice design of rating scale had much merit to consider in this study. Since the proposed instrument was to be used by potential employees or their superiors as a possible device in selection and placement, the researcher desired to eliminate as much bias as possible from the rating system.

The research conducted in Extension and related fields along with the two concepts presented about leader behavior

68 Ibid., p. 343.
pointed the direction to experimentation in the measurement of leader behavior. The implied direction was that leaders who behave in a manner which could be classified in one of the three patterns below performed most effectively in bringing about organizational changes:

1. Leaders who were high in both initiating structure and consideration.

2. Leaders who could be classified as transactional (the one who could balance between the needs of the followers and the expectations of the organization).

3. Leaders who had balance between group achievement and group maintenance.

It appeared that all three of these leader types were essentially the same and if we could adequately measure the leader behavior to identify this leader, we could then determine if this type leader was really the most effective performing leader. The forced-choice and numerical instruments appeared to be the type of scales most adaptable to measuring leader behavior.
CHAPTER III
DEVELOPMENT OF FORCED-CHOICE LEADER
BEHAVIOR QUESTIONNAIRE

This study was directed toward the development of an instrument which could be used in the process of selection and placement of employees with the Ohio Cooperative Extension Service. To accomplish this, the instrument would need to be completed by prospective employees and by their superiors in previous positions.

It was necessary to have an instrument which—

1. Eliminated the opportunity for the "halo" effect to operate.
2. Avoided falsification of reporting.
3. Distinguished among the population.
4. Administered easily.
5. Provided for personal satisfaction to the prospective employee when completing it.

The forced-choice and numerical rating systems appeared to be the most appropriate techniques for use in a measuring instrument to meet these criteria. Not all writers fully believed these techniques to be satisfactory.

Travers objected to the forced-choice idea on the basis that it did not have higher validity than other scales and did not prevent "piling." However, Gordon pointed out the objection

of the traditional scales: "A primary reason for the low validity . . . is the motivation of a majority of respondents to mark socially acceptable alternatives to items, rather than those which they believe to apply to themselves." This and other similar reports pointed up the need for a system which would avoid the marking of items which appeared favorable. In effect this could be accomplished in the forced-choice technique.

Since the forced-choice system had gained acceptance and could contribute to the accomplishment of the purpose of this study, it was decided to use a forced-choice instrument. In order to provide adequate variance and also to make the instrument psychologically acceptable to the describer, it was decided to use a combination forced-choice and numerical rating system in the initial stages of the research. No research could be found where this had been used previously.

Procedure for Development of Forced-Choice and Numerical Scale

In the development of the forced-choice numerical scale, five distinct steps were followed:

1. Phrases descriptive of leader behavior of county Extension agents were secured.
2. All the phrases were edited for clarity.
3. The phrases were then classified into the initiating structure and consideration dimensions of leader behavior.
4. A discrimination index (D.I.) and a preference index (P.I.) were then computed on each remaining phrase.
5. Discrimination and preference indexes were used to develop three experimental scale formats.

Each of these steps in the development of the forced-choice and numerical scales will be explained in further detail later in this chapter.

Selection of Phrases for Scales

Based on the analysis of the theory in the area of leader behavior, it was decided to study the initiating structure and consideration dimensions of leader behavior. Therefore, the researcher needed to select phrases which could be distinguished as an indicator of one of the two dimensions.

Since these two areas of leader behavior were evident in previous research, the selection of phrases for the scale came basically from the phrases which were in the Leader Behavior Description Questionnaire (LBDQ). The short form of the LBDQ provided an initial group of 15 items in each dimension of leader behavior. However, these were too few phrases to start the development of a forced-choice instrument.

Additional phrases were selected from the long form of the LBDQ and more were added by the researcher which were applicable to the dimensions being researched. These additional phrases were identified from literature in Extension Education dealing with agent behavior and from discussion with graduate students in Extension Education. For the final analysis a total of 91 phrases were selected.
Editing of Phrases

The phrases selected from the initial LBDQ were edited so they would apply to Extension personnel. The phrases were general enough so they could be used with prospective employees. A similar editing procedure was necessary for the additional phrases selected. This editing was done by the researcher, his wife, and other graduate students.

Selected criteria from Wang's list were used in this evaluation or editing.⁴

1. Each statement should be subject to just one interpretation.
2. Each statement should be simple, not compound.
3. Each statement should be short.
4. Each statement should contain one complete thought.
5. Each statement should be clear-cut and direct.
6. Each statement should be stated in the active, not in the passive voice.

In the development of a forced-choice format, the editing step was not as essential as with other types of scales, for misleading statements were eliminated in later developmental steps.

Six phrases were eliminated in the editing step. These phrases were either duplications or phrases which could not be edited to meet the above criteria.

Classification of Phrases into Initiating Structure and Consideration Dimensions

The next step involved the sorting of the remaining 85 phrases into either the initiating structure or consideration leader behavior dimension. This was accomplished by having each

⁴Ferguson, Personality Measurement, p. 84.
phrase typed on a plain white, three by five, index card. The cards were then placed in a numerical order by random selection. Eight Extension supervisors or administrators were given the 85 phrases along with three instruction cards. The first instruction card read:

On each of the attached cards is a phrase which may be partially descriptive of agent behavior when working with people. Please sort the cards into the following two groups:

a. initiating structure phrases
b. consideration phrases

A description of each of these groups is on the attached cards.

Any phrases not descriptive of either group should be placed in a third group.

The other two instruction cards contained the definition of initiating structure and consideration related previously.

The cards containing the phrases were given individually to the Extension supervisory and administrative staff members. Two staff members in each of the following groups were used in this step:

District Supervisors
Home Economics Supervisors
4-H Club Supervisors
Other Administrative Personnel

This provided a composite group which had a broad perspective of Extension agent responsibilities.

Placement within a specific dimension by five of the eight staff members was necessary for the item to be used further. After elimination of phrases not meeting this criterion, there
were 35 consideration and 41 initiating structure phrases. Nine phrases were rejected at this stage of analysis including two phrases adapted slightly from the LBDQ consideration dimension.

The results of the sorting of the 85 items can be found in Table 26 in Appendix A.

Determination of Preference and Discrimination Indexes

"The discrimination index is the degree to which the item differentiates high and low criterion individuals." This was accomplished by having a group of raters identify a high and low person on the selected criterion and describe each person on each item.

The preference index was a measure of how attractive the phrase was to the person reacting to the statement. This was accomplished in a similar procedure as was done with the discrimination index, but with a different statistical analysis.

In order to secure data for computation of a D.I. and a P.I., each supervisory and administrative staff member of the Ohio Cooperative Extension Service was asked to complete two major tasks.

1. The first task consisted of completing two questionnaires, each containing the 41 initiating structure phrases identified in the previous step. The staff member was to first identify two Extension agents, one of whom was high on initiating

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structure and the second low on this dimension. The staff member was then asked to place each of these individuals on a 20-point scale in relation to where all agents he had known would fall on this scale.

On the first questionnaire the staff member was asked to react by indicating to what extent (on a 5-point scale) each of the 41 phrases was descriptive of the agent he considered to be high on the initiating structure dimension.

On the second questionnaire the staff member was asked to react in a similar way but to the agent he considered to be low on the initiating structure dimension.

The instructions and questionnaires may be found in Appendix A.

2. The second task consisted of completing two questionnaires, each containing the 35 consideration phrases identified previously. A similar procedure was followed to that in step one above, but in all cases the leader behavior dimension of consideration was used rather than initiating structure.

The instructions and questionnaires may be found in Appendix A.

The instructions and four questionnaires were sent to 24 supervisory and administrative staff personnel. Twenty-two returned the questionnaires. One respondent did not feel qualified to complete the questionnaires and the questionnaires of two respondents were too late to be used. In the final analysis, 19
completed forms were used in the computation of preference and discrimination indexes.

The data from each completed questionnaire were punched on data processing cards. The cards were sorted by responses to each phrase.

Discrimination index numbers had been computed by biserial correlation, mean differences, per cent of overlap, or chi-square. However, Lanman and Remmers reported: "Sisson used the total of the differences between the high and low criterion groups in the rank of an item. This is the simplest possible index and there is no evidence yet presented to show that it is not as adequate for most situations as any other." 5

Thus, on each consideration and initiating structure phrase there was computed a difference of the frequencies in the respective high and low groups. These differences were then summed. A computation of a discrimination index can be seen in Table 1.

The preference index computed was the mean applicability value; that is, the frequency of both the high and low groups were multiplied by the appropriate response (5, 4, 3, 2, 1), summed, and a mean value computed. Both indexes were computed on each of the 76 phrases.

Table 1 reveals an example of how a preference index was computed in addition to the computation of a discrimination index.

5 Ibid.
TABLE 1. Procedural computation of discrimination and preference indexes on one phrase

<table>
<thead>
<tr>
<th>Criterion Group</th>
<th>Frequency of Applicability Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>10</td>
</tr>
<tr>
<td>Low</td>
<td>1</td>
</tr>
<tr>
<td>Differences of high and low group frequencies</td>
<td>9</td>
</tr>
</tbody>
</table>

P.I. = \( \frac{\text{total fr. x appl. values}}{n} = \frac{128}{38} = 3.37 \)

D.I. = \( \leq (|\text{High} - \text{Low}|) = 32 \)

In Table 1 the preference index was computed by multiplying total frequencies of each applicability value times the respective value. These five values were then summed and divided by the total number. The discrimination index was merely a total sum of the difference in the high and low group frequencies.

The use of the above procedure for computation of a preference index was chosen after a careful perusal of the conflicting methodological research on forced-choice formats relating to preference indexes. The preference index in early research with the PRS-AGO was indicated to be "... the mean of the scale indicating the degree to which the phrase applies to the group concerned."\(^6\)

\(^6\)Ibid., pp. 544-45.
This definition was not completely clear and much research had followed on whether other measures of attractiveness might be more appropriate. Berkshire researched five measures of attractiveness.\(^7\)

*Preference*  
*Favorableness*  
*Upper group applicability*  
*Face validity*  
*Job importance index*

Previous researchers found each of these five measures to be valuable in matching statements which appeared equally attractive to the describer. In Berkshire's research the job importance index was most valuable in personnel evaluation situations.

Both the job importance and favorableness indexes required an extra step in completion of an index, while the regular preference index was computed from the same data necessary for a discrimination index. Wherry found the preference index to be slightly more desirable than the favorability index.\(^8\) Likewise, Bartlett concluded the preference index to be more valuable in matching statements than the favorability index.\(^9\)


The decision to use the common preference index was based upon the desire to refrain from involving the supervisory and administrative staff in additional research since the research reported does not substantiate a specific type of attractiveness index. The major task of having statements appear equally attractive, to the rater using the instrument, appeared to be accomplished in the manner selected.

After computation of all the discrimination and preference indexes, the total range of P.I.'s and D.I.'s was observed as shown in Table 2.

<table>
<thead>
<tr>
<th>Leader Behavior Dimensions</th>
<th>P.I.</th>
<th>D.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Initiating structure</td>
<td>3.58</td>
<td>2.00</td>
</tr>
<tr>
<td>Consideration</td>
<td>3.61</td>
<td>2.71</td>
</tr>
</tbody>
</table>

The range in index values was much greater for the initiating structure phrases than for the consideration phrases, as can be seen in Table 2. The writer believed this disparity was due to the respondents' (supervisory and administrative staff) perceiving Extension agent behavior more like the behavior in the consideration phrases than they did the behavior evident in the initiating structure phrases.
However, the difference in range of scores did not affect the future development of an instrument where the phrases descriptive of each dimension of leader behavior were considered separately and not intermingled within a tetrad.

A review of several research studies revealed that a factor analysis of phrases was conducted at this stage to reverify the dimensions under consideration. Since the forced-choice design did not require this additional step and since the dimensions under consideration had been clearly identified in previous research, the researcher moved directly to the development of an actual instrument utilizing discrimination and preference indexes.

Development of Experimental Scales

In the area of statement grouping, there was agreement that the most desirable format was the tetrad arrangement of four favorable statements. In this format, the describer must select the two statements most like the person being considered. This format was recommended as a result of research completed by Highland and Berkshire and reported by Remmers,10 Hudson,11 and others. In order to develop a tetrad, it was not only necessary to match four phrases which were closely identical on the preference index, but also to select two phrases distinguishing between high and low criterion groups to a greater extent that the remaining two phrases.

10 Remmers, op. cit., p. 343.
11 Hudson, op. cit., p. 9.
Phrases were grouped within each leader behavior dimension. This eliminated any overlapping between the two dimensions of leader behavior. This was done since the researcher desired to measure each dimension of leader behavior independently. If phrases from each leader behavior dimension had been included in each tetrad, then a person rating high on one would rate low on the other.

The matching within each leader behavior dimension was completed with an end product of eight tetrads of initiating structure phrases and eight of consideration phrases. Of the 76 phrases for which P.I.'s and D.I.'s were computed a total of 64 phrases were used.

Twelve phrases were not used. Of these 12, one was a consideration phrase taken directly from the LBDQ, and four were initiating structure phrases taken directly from the LBDQ and edited slightly. The initiating structure phrases from the LBDQ, not used in the forced-choice format, were phrases which had a "strong" value tone. Thus, they were not descriptive of an Extension agent as perceived by the supervisory and administrative staff. This was substantiated by low preference and discrimination indexes of these phrases. The phrases were not liked nor did they distinguish between people high and low on initiating structure.

The D.I. and P.I. values for each tetrad used can be found in the Appendix A, Tables 27 and 28.

Bartlett had indicated the possible value of equal preference and discrimination indexes in a tetrad or dyad when using an
instrument as a self-rating device.\textsuperscript{12} Since this study was directed toward a possible self-rating device, it was decided to experiment with Bartlett's proposal of equal P.I.'s and D.I.'s. Since only two dimensions of leader behavior were used in this study, it was desirable to develop dyads using the equal P.I. and D.I. idea. A series of dyads was developed with one item from each leader behavior dimension. Each phrase selected within a dyad had equal preference and discrimination indexes. The pairing of these dyads can be found in Table 29, Appendix A. At this point the researcher had two forced-choice scales; one being the tetrads and the second the dyad arrangement. The researcher planned to use a numerical rating scale along with the forced-choice scale. This was done on an experimental basis by attaching a numerical scale to the tetrad section. A typical example taken from the section composed of tetrads is as follows:

a. Compliments others for their work.
b. Engages in friendly jokes and comments.
c. Has an open ear.
d. Is willing to make changes.

For this particular scale the describer was asked to select the two phrases most like or which best described the person being considered. The scoring was accomplished by giving one point for each phrase selected in a tetrad if the phrase was a discriminating phrase. Possible scores were zero, one, or two.

\textsuperscript{12}Bartlett, "Relationship Between Self Ratings and Peer Ratings on a Leadership Behavior Scale."
The numerical type scale was merely an extension of the above type tetrad. In addition to a selection of the two most descriptive phrases, the describer was asked to select a numerical value which corresponded to how frequently the person being described engaged in the activity evident in the two phrases selected. The following type scale was placed to the right of each item in each tetrad:

\[
\begin{array}{cccccc}
5 & 4 & 3 & 2 & 1 \\
\text{Always} & \text{Often} & \text{Occasionally} & \text{Seldom} & \text{Never}
\end{array}
\]

The extension of the forced-choice type scale permitted the expansion of range in scores of each tetrad. In this scale it was possible to score between zero and ten on each tetrad. This was accomplished by adding the numerical values selected of those items which were discriminating in the tetrad.

The third type of scale was the section composed of dyads. A typical dyad—

a. Emphasizes the meeting of deadlines.
b. Helps individuals with personal problems.

The describer was instructed to choose the one phrase most like the person being considered. The scoring pattern was one point for either initiating structure or consideration depending upon the phrase selected.

The experimental instrument had three different scales, with two highly related, since one depended upon the other. The
third scale (dyad) was independent of the other two, although some of the same phrases were used in construction.

The completed scales can be found in Appendix B.

**Administration and Analysis of Experimental Scales**

Through the construction of a forced-choice scale based on known dimensions, the researcher designed into the scale a certain amount of validity. The placement and retention of phrases within a specific dimension provided for the building of some content validity. However, content validity cannot normally be considered sufficient for measurement devices other than achievement tests. Additional validation was essential.

At this stage of experimentation, it was necessary to determine whether or not the instrument measured accurately the existing status of the two dimensions of leader behavior under study. The determination of whether the instrument was diagnostic of an existing status was called concurrent validity. A common method for measurement of concurrent validity was through the use of other tests.\(^{13}\)

Since the LBDQ measured the two dimensions of initiating structure and consideration, the concurrent validity of the new instrument was determined by correlating the results of an administration of the LBDQ, and each new scale on known individuals. Thus the LBDQ was referred to as the criterion instrument.

\(^{13}\)Anne Anastasi, *Psychological Testing*, p. 142.
It was decided to have a group of Extension staff members describe an ideal Extension agent on the following instruments:

1. Leader Behavior Description Questionnaire (LBDQ)
2. Forced-Choice Leader Behavior Questionnaire
   a. Tetrad section without numerical scale (FCLBQ)
   b. Tetrad section with numerical scale [FCLBQ (numerical)]
   c. Dyad section [FCLBQ (dyad)]

The ideal Extension agent was chosen as the person to be described so that consistency would be present in the description of an individual on each instrument. The determination of the worth of each new instrument was partially dependent upon consistency of describers, since inconsistency would result in a lower correlation between the instruments.

In addition to this step serving as a measure of concurrent validity, it also served as an additional pretest of the instrument. It was decided to have the same type group of people, who would be completing the instrument later, participate in this validation step in the research. The supervisory and administrative staff and a class of Extension personnel enrolled in a workshop on Extension education were asked to complete the LBDQ and also each of the new instruments. Each of these instruments may be found in Appendix B along with the letters of instruction.

Of the 23 supervisory and administrative staff members, who were sent the questionnaires, 19 returned completed usable forms in time for the statistical computation. Two additional forms were returned too late for use.

There were 20 students in the graduate Extension Education class during Winter Quarter, 1964. Three of the students were
eliminated since they were international students who had very limited contact with Extension agents in this country. Returns from 16 class members were used, since one was received too late for use.

Since four different instruments were used, eight different scales had to be considered because each instrument contained the two basic leader behavior dimensions.

The scoring on each instrument was done by hand.

The Leader Behavior Description Questionnaire (LBDQ) was scored on a $4, 3, 2, 1, 0$ basis corresponding to the frequency with which the leader engaged in the activity indicated. A composite score was computed for each dimension. The scoring key was available in a manual prepared by Halpin.\textsuperscript{14}

The Forced-Choice Leader Behavior Questionnaire (FCLBQ) was scored as indicated previously. A composite score was computed for each leader behavior dimension.

The FCLBQ (numerical) was scored as described previously and composite scores were computed for each dimension.

The FCLBQ, in the dyad format, was scored either one or zero, the positive value being scored for the leader behavior dimension which was selected as most like the person being described. Thus, the total scores on this 12-item scale ranged from zero to 12 in each dimension; however, the combined score could not exceed 12.

\textsuperscript{14}Andrew W. Halpin, \textit{Manual for the Leader Behavior Description Questionnaire} (Columbus, Ohio: Bureau of Business Research, College of Commerce and Administration, The Ohio State University, 1957).
In Table 3, the mean scores of each leader behavior dimension on each instrument as perceived by the describers are evident.

**TABLE 3.** Ideal Extension agent mean scores on two leader behavior dimensions as perceived by supervisory and administrative staff and a graduate class in Extension Education through the use of four instruments

<table>
<thead>
<tr>
<th>Instrument Used</th>
<th>Initiating Structure Mean</th>
<th>Consideration Mean</th>
<th>Initiating Structure Mean</th>
<th>Consideration Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBDQ</td>
<td>39.6</td>
<td>48.3</td>
<td>37.6</td>
<td>47.5</td>
</tr>
<tr>
<td>FCLBQ</td>
<td>9.5</td>
<td>10.5</td>
<td>8.4</td>
<td>10.2</td>
</tr>
<tr>
<td>FCLBQ (numerical)</td>
<td>38.9</td>
<td>45.4</td>
<td>32.8</td>
<td>42.9</td>
</tr>
<tr>
<td>FCLBQ (dyad)</td>
<td>4.7</td>
<td>7.3</td>
<td>5.6</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Inasmuch as the scoring system for each instrument was different, no comparison could be made between the actual scores of the different instruments as reported in Table 3. However, in all cases, the data indicated that the leader behavior of Extension agents was more nearly like the phrases descriptive of consideration than initiating structure. Because this observation was true with all instruments and all describers, the writer believed Extension personnel think Extension agents need to be more concerned about their working relationships with people than with initiating new ideas.
In order to determine statistically whether the two groups of describers were basically alike in their description, the $t$ test\footnote{Solomon Diamond, Information and Error, pp. 107-14.} was applied to determine the significance of the difference between two independent mean values. The $t$ values are shown in Table 4.

**TABLE 4.** Student's $t$ values of the difference between the mean scores of an ideal Extension agent as perceived by administrative and supervisory staff and a graduate class in Extension Education on four descriptive instruments

<table>
<thead>
<tr>
<th>Instrument Used</th>
<th>Initiating Structure $t$ Value</th>
<th>Consideration $t$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBDQ</td>
<td>1.29</td>
<td>.27</td>
</tr>
<tr>
<td>FCLBQ</td>
<td>$4.66^a$</td>
<td>.55</td>
</tr>
<tr>
<td>FCLBQ (numerical)</td>
<td>$5.38^a$</td>
<td>1.24</td>
</tr>
<tr>
<td>FCLBQ (dyad)</td>
<td>1.09</td>
<td>1.59</td>
</tr>
</tbody>
</table>

$^a$Significant at .001 level.

It can be observed that in only two cases were there any significant differences between the description of the ideal Extension agent by supervisory and administrative staff and the graduate Extension Education class. The only significant difference was in the initiating structure dimension on the FCLBQ and the FCLBQ (numerical).

Referring to the evidence in Tables 3 and 4, it can be concluded that the two groups of describers perceived the ideal Extension agent in the same way with the exception of the
initiating structure dimension on the two related experimental scales. The two groups of describers were generally consistent. Therefore, the researcher used both groups in the correlation of the new scales with the LBDQ.

The major reason for having the three new forms and the LBDQ completed by a group of staff members was to determine whether the new scales measured consistently the same leader behavior dimensions as the LBDQ. In order to determine this concurrent validity, a Pearson product-moment correlation was computed between three selected pairs of scales on each leader behavior dimension.

The correlations between three different scales on the consideration dimension are presented in Table 5.

<table>
<thead>
<tr>
<th>TABLE 5. Correlations between three experimental leader behavior scales and the LBDQ on the consideration dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scales Being Correlated</strong></td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>LBDQ - FCLBQ</td>
</tr>
<tr>
<td>LBDQ - FCLBQ (numerical)</td>
</tr>
<tr>
<td>LBDQ - FCLBQ (dyad)</td>
</tr>
</tbody>
</table>

^aSignificant at .05 level.

^bSignificant at .10 level.

16Ibid., pp. 181-183.
The data in Table 5 indicate the greatest relationship was between the LBDQ and the FCLBQ (numerical). The writer used the t test as explained in Snedecor and found these values of r to all be significant at the .10 level of confidence. The correlation was significant at the .05 level when both groups of describers were used. This relationship was interpreted to mean that the FCLBQ (numerical) was the instrument that most nearly measures the same consideration factor as the LBDQ.

The correlations in Table 5 have in them error from the instrument being developed and from the LBDQ with which it was being compared. Guilford pointed out the need to correct for attenuation in the criterion to achieve a true measure of the instrument under investigation. To accomplish this adjustment, the reliability of the criterion instrument (LBDQ) was needed. The Spearman-Brown corrected odd-even reliability of the LBDQ on the consideration dimension was .52 when used by administrators, supervisors, and graduate students to describe an ideal Extension agent.

When the formula provided by Guilford was used to correct for attenuation in the criterion only, the correlation between the LBDQ and the FCLBQ (numerical) on the consideration dimension increased from .37 to .51 (n = 35) which was significant at the .01 level.

18 Guilford, Psychometric Methods, p. 401.
19 Ibid., p. 354.
level. Statistically, the new instrument was highly related to the LBDQ.

The correlation between the LBDQ and the FCLBQ was also corrected for attenuation. It was not significant since the value was only .11. Likewise the correlation between the LBDQ and the FCLBQ (dyad) was not significant when corrected for attenuation.

Correlations were also computed for the initiating structure dimension. This information is presented in Table 6.

### TABLE 6. Correlations between three experimental leader behavior scales and the LBDQ on the initiating structure dimension

<table>
<thead>
<tr>
<th>Scales Being Correlated</th>
<th>Supervisors and Administrators N = 19</th>
<th>Graduate Class N = 16</th>
<th>Combination of Describers N = 36</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBDQ - FCLBQ</td>
<td>-.10</td>
<td>.24</td>
<td>.11</td>
</tr>
<tr>
<td>LBDQ - FCLBQ (numerical)</td>
<td>.50&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.22</td>
<td>.38&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>LBDQ - FCLBQ (dyad)</td>
<td>.45&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.30</td>
<td>.36&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>Significant at .05 level.  
<sup>b</sup>Significant at .10 level.

The relationship between the LBDQ and the FCLBQ with numerical scale was significant at the .05 level when using all describers or only the supervisory and administrative staff. Likewise, on the initiating structure data shown in Table 6, the dyad form of the FCLBQ was significantly related to the LBDQ. This was not the case with the correlation for the consideration dimension which is shown in Table 5.
A correction for attenuation was also appropriate for these data on the initiating structure dimension. The odd-even Spearman-Brown corrected reliability for the initiating structure dimension of the LBDQ was found to be .31.

Correcting for attenuation, the correlation between the LBDQ and the FCLBQ (numerical) increased from .38 to .68 which was significant at the .001 level. Likewise, the correlation between the LBDQ and the FCLBQ (dyad) corrected for attenuation was .64 which was also significant at the .001 level. The LBDQ - FCLBQ correlation corrected for attenuation was .20, which was not significant.

Referring to raw correlations in Tables 5 and 6 and the corrected correlations referred to in the discussion, it was concluded by the researcher that the FCLBQ with numerical scale was the new instrument most closely associated with the older LBDQ on both leader behavior dimensions. A perfect correlation between two instruments was not expected, because the new instrument was changed to make it adaptable to Extension agents.

High correlations cannot be expected when the reliability of the instrument used as a criterion was not high. As pointed out previously, the LBDQ odd-even reliabilities were low according to some standards. In fact, the reliability coefficients of .31 on initiating structure phrases and .52 on consideration phrases were much lower than the past reported reliabilities of the LBDQ. This low reliability can be explained by the fact that the range

20 Ibid., p. 401.
of scores on the ideal Extension agent was relatively small. Reliability was related to the standard deviation and the design of this step of the research provided a setting for a small standard deviation.

The odd-even reliability figures of the new instruments were low, as they were with the LBDQ. Again, this was attributed to the small standard deviation, to the short test length, and the error in the new instrument. Since the reliability was sporadic, it was decided that further analysis of the experimental instrument should be accomplished in the final administration of the instrument.

The concurrent validity figures between the LBDQ and the FCLBQ (numerical) indicated a sufficient relationship to warrant the continuation of the research project. Thus, the FCLBQ (numerical) was selected as the instrument to be used for further analysis of the initiating structure and consideration dimensions of leader behavior.

Administration and Analysis of Final Scale

The 16-item FCLBQ (numerical) was prepared for administration to a population of Extension agents to be completed by themselves and their supervisors. The printed instrument can be found in Appendix C.

The instrument was identical with the experimental scale except the numerical verbal cues were changed. The new word cues indicated the extent to which the phrase was descriptive of the
agent being described rather than the frequency in which he engaged in the behavior indicated in the phrase.

The questionnaire was sent by mail to 197 county Extension agents in Ohio on whom a performance evaluation figure was available. This meant the agent must have been on the job by October 1, 1962. Not included were 39 newly employed agents on whom no performance score had been completed. Each Ohio county was represented by at least one agent. A copy of the cover letter sent with the questionnaire is in Appendix C. The cover letter instruction sheet requested each Extension agent to complete the questionnaire on himself.

At the same time each agent's immediate supervisor was contacted individually and asked to complete a FCLBQ (numerical) on each agent working under him or her. Thus, ten supervisors completed questionnaires on from 14 to 35 agents. The large number was due to the need for two supervisors to complete questionnaires on two groups of agents since the supervisory staff lacked some personnel.

Of the 197 questionnaires sent to agents, 195 were returned or a return percentage of 99. Three returns were too late for use. An additional seven questionnaires were not completed sufficiently for use, so the final analysis was made on 185 returns.

All 197 questionnaires were returned from the supervisors, but since the adding of supervisor and self-described data was required, it was necessary to discard the 12 supervisory forms of the agents who did not return usable questionnaires.
The analysis was thus made using 185 questionnaires completed by the agents on themselves and the same agent as described by supervisors. This was 94 per cent of the agents who were eligible for inclusion in the population.

Each item on the questionnaire was scored by hand indicating whether the discriminating items were selected in the forced-choice tetrad. Each tetrad score was computed by adding the numerical score of each phrase selected, providing it was a discriminating phrase. Thus, each tetrad had a possible score of zero to ten.

The tetrad values were then punched on data processing cards along with additional information needed in the validation analysis. The statistical analysis was completed by the Statistics Laboratory in the Mathematics Department of The Ohio State University.

Instrument Analysis

For the final instrument analysis it was necessary to complete a reliability value and an item analysis to determine if any items should be rejected before the validation analysis.

Reliability commonly gives an indication of consistency throughout several measurements. In test reliability, each item can be considered as a unit of measurement, so the test constructors desire all items to measure consistently.
Low reliability can be caused by many sources of error such as lack of item specificity, heterogeneity of items, or changes in individuals such as fatigue, distractions, emotional strain, and worry.

There were several methods of computing reliability which would have indicated whether these different types of error were present. The writer chose to use the odd-even reliability measure, which was a measure of internal consistency and as such checks the item specificity. To an extent, the odd-even correlation also measured the equivalence of the two parts (odd and even).

In order to avoid the presence of error from heterogeneity of items, it was necessary to compute a reliability figure for each dimension (initiating structure and consideration) of the instrument. Each of the consideration tetrads was arranged in order according to the preference index values of the items in the tetrad. Then the odd and even tetrads were identified for use in computation of the odd-even reliability. A similar procedure was used with the initiating structure tetrads.

The odd-even reliability figures of the FCLBQ (numerical) are in Table 7.

The correlations in Table 7 have been corrected for attenuation by use of the Spearman-Brown formula. This was necessary to give the proper correlation since the length of the instrument had, in effect, been cut in half.

21Ibid., p. 354.
TABLE 7. Spearman-Brown corrected odd-even reliability of the consideration and initiating structure dimensions of the 16-item FCLBQ (numerical)

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Consideration Tetrads</th>
<th>Initiating Structure Tetrads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>.33</td>
<td>.33</td>
</tr>
<tr>
<td>Supervisor</td>
<td>.66</td>
<td>.64</td>
</tr>
</tbody>
</table>

*aCorrelation of two halves of four items each.

The correlations in Table 7, ranging from .33 to .64, are all significant at the .001 level, but are not as high as would be desired for a reliability of two halves of a test. A reliability value of .80 or above was normally desired. 22

The variation in reliability between the supervisor and self-description may have been of a temporal kind. The writer concluded that agents completing a questionnaire on themselves were probably more frustrated and anxious than the supervisors. Thus, a difference in the reliability figure.

Since the researcher used the odd-even reliability, some of the error was due to a lack of item specificity so there was a need to do further analysis of the data. An item analysis of the tetrads was computed to provide some indication of which tetrads were associated with the dimension of which they were a part. Further, the researcher desired to know if each tetrad was more closely associated with its own dimension than with the other dimension in the questionnaire.

22 Anne Anastasi, op. cit., p. 118.
To accomplish an item analysis, the researcher chose to use a correlational technique. Each tetrad score was correlated with the total score of both the initiating structure and consideration dimensions. An ideal correlation would have found a tetrad score correlating high with the total score of its own dimension and low with the opposite dimension.

The correlations of the initiating structure tetrads with the total scores can be seen in Table 8.

**TABLE 8.** Correlation of each initiating structure tetrad with the sum of the eight initiating structure tetrads and with the sum of the eight consideration tetrads on FCLBQ (numerical)\(^a\)

<table>
<thead>
<tr>
<th>Initiating Structure Tetrad Number</th>
<th>Initiating Structure</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self</td>
<td>Supervisor</td>
</tr>
<tr>
<td>2</td>
<td>.53</td>
<td>.75</td>
</tr>
<tr>
<td>4</td>
<td>.47</td>
<td>.57</td>
</tr>
<tr>
<td>9</td>
<td>.39</td>
<td>.56</td>
</tr>
<tr>
<td>11</td>
<td>.36</td>
<td>.39</td>
</tr>
<tr>
<td>12</td>
<td>.51</td>
<td>.57</td>
</tr>
<tr>
<td>14</td>
<td>.36</td>
<td>.46</td>
</tr>
<tr>
<td>15</td>
<td>.42</td>
<td>.52</td>
</tr>
<tr>
<td>16</td>
<td>.50</td>
<td>.34</td>
</tr>
</tbody>
</table>

\(^a\)All values of \(r \geq .21\) are significant at .01 level.

As shown in Table 8, the correlations of the initiating structure tetrad scores to total scores of this same dimension ranged from .34 to .75. All these values were significant correlations. Thus, the writer concluded that all the tetrad scores
were definitely contributing to the total sum. When correlating an item with a total score, of which the item was a part, the researcher must use the values with caution. This was true since any correlation of this nature will be spuriously high.

The correlation of these same initiating structure tetrad scores to total scores of the consideration dimension ranged from .01 to .44. None of the correlations in the self-report were significant, but four values were significant in the supervisory-report. As indicated previously the researcher would have ideally desired all of these correlations to be near zero.

Referring again to Table 8, a comparison was made between the correlations of tetrad scores to total initiating structure sum, and the correlations between the tetrad scores and the consideration dimension sum. In all cases the initiating structure correlations were higher than the correlations of the consideration dimension. The spuriously high factor was present in only the correlations of a tetrad score to its own dimension. Thus, there should be a definite difference between any comparable correlations of the same tetrad. In the case of tetrad number 16, the correlations were .34 (own dimension) and .32 (other dimension) in the supervisory-report. In the self-report the range was larger, the correlations being .50 and .16. Since the reliability of the supervisory-report was much higher than the self-report, the researcher felt more confidence could be put in future analysis of this segment of the research. Even though a good range of correlation was evident in the self-report, the .34 and .32
correlations of tetrad 16 completed by supervisors were considered
too close to indicate that the tetrad was contributing to one
specific dimension. Thus, tetrad number 16 was eliminated from
further analysis.

The correlations of the consideration tetrads with total
sums of both dimensions can be found in Table 9.

TABLE 9. Correlation of each consideration tetrad with the sum
of the eight consideration tetrads and with the sum of the
eight initiating structure tetrads on FCLBQ (numerical)\textsuperscript{a}
\(N = 185\)

<table>
<thead>
<tr>
<th>Consideration Tetrad Number</th>
<th>Consideration Self</th>
<th>Consideration Supervisor</th>
<th>Initiating Structure Self</th>
<th>Initiating Structure Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.35</td>
<td>.55</td>
<td>.16</td>
<td>.39</td>
</tr>
<tr>
<td>3</td>
<td>.48</td>
<td>.73</td>
<td>.04</td>
<td>.24</td>
</tr>
<tr>
<td>5</td>
<td>.36</td>
<td>.57</td>
<td>.02</td>
<td>.26</td>
</tr>
<tr>
<td>6</td>
<td>.38</td>
<td>.60</td>
<td>.03</td>
<td>.44</td>
</tr>
<tr>
<td>7</td>
<td>.42</td>
<td>.44</td>
<td>-.05</td>
<td>.14</td>
</tr>
<tr>
<td>8</td>
<td>.37</td>
<td>.17</td>
<td>-.02</td>
<td>-.01</td>
</tr>
<tr>
<td>10</td>
<td>.51</td>
<td>.61</td>
<td>.24</td>
<td>.31</td>
</tr>
<tr>
<td>13</td>
<td>.37</td>
<td>.61</td>
<td>.15</td>
<td>.29</td>
</tr>
</tbody>
</table>

\textsuperscript{a}All values of \( r \geq .21 \) are significant at .01 level.

The correlations of the consideration tetrad scores with
total sums of both leader behavior dimensions was much the same
as were the initiating structure correlations. The correlation
of tetrad scores with its own dimension totals, as evident in
Table 9, shows the range of correlations to be .17 to .73. Since
the .17 correlation was not significant (even though it was known
to be a spuriously high correlation), tetrad number eight was immediately discarded from further use.

The correlations of the consideration tetrad scores with the total sum of the initiating structure dimension were all lower than the correlations with their own dimension. However, there were several correlations which were significant, indicating some relationship between the two dimensions.

The elimination of tetrads eight and sixteen were the changes which resulted from the correlational method of item analysis.

The data were then analyzed a second time omitting these two tetrads.

In the computation of a new reliability figure, it was not possible to accurately use the Spearman-Brown formula to correct for attenuation since one part had three items and one had four. However, a look at comparable figures to those found in Table 7 gives some indication of change in reliability. The self-report consideration .33 and initiating structure .33 odd-even reliabilities decreased to .30 and .32, respectively.

The writer attributed this decrease to the elimination of the two tetrads which were not "poor" when the self-report data were analyzed, but were "poor" when the supervisory-report data were analyzed.

Since supervisory-reports were the basis for elimination of the two tetrads, the reliability figures for the supervisory-report should have increased. The .66 and .64 correlations for
the supervisory-report in Table 7 increased to approximately .68 and .69.

In summary, an estimate of the odd-even reliability of both dimensions of the revised instrument was just under .70 using the data as described by the supervisors. When agents described themselves, the reliability was approximately .30.

An additional item analysis was completed on the remaining 14 tetrads. The summary of these correlations are found in Tables 30 and 31 in Appendix C. These correlations of the remaining tetrads with total sums fluctuated only slightly from the previous item analysis.

Summary

The construction of a forced-choice and numerical type instrument was tedious, but resulted in an instrument which the writer has shown to measure distinct dimensions of leader behavior. The instrument constructed had reliability figures ranging from .30, when completed by self, to .69 when completed by supervisor.

The researcher interpreted the low self-report reliability to mean that limited confidence could be placed in future analysis of the self-report data. Although further analysis of data would have to be considered within the framework of a reliability figure slightly lower than was desired, the researcher felt further analysis of data in relation to performance was desirable.
CHAPTER IV

ANALYSIS OF PERFORMANCE IN RELATION TO LEADER BEHAVIOR DESCRIPTION

The FCLBQ (numerical) was developed to measure two distinct dimensions of leader behavior to be used as an aid in selection and placement of county Extension agents. Although the instrument had been shown to measure the two dimensions of leader behavior and was fairly reliable, when completed on subordinates by superiors, it was still necessary to relate the results of its use to performance. To accomplish this validation of the instrument an analysis of its administration was made and is explained in this chapter.

Procedures in Administration of Instrument and Analysis of Data

The data were obtained from the administration of the instrument to the same respondents as were used in the final item analysis and reliability computations. This was explained in detail in Chapter III.

The statistical analyses necessary for further interpretation included the use of means, medians, and correlations of the data collected from the final 14 tetrad FCLBQ (numerical). The means from each dimension of leader behavior were used for observation of whether supervisors and the agents completed the
questionnaire similarly. The correlation analysis was used to show the extent of this relationship.

The median value was used to determine whether agents were above or below the mid-point in order to classify them into one of four categories. The categories or classifications were:

1. Above the median on the initiating structure and consideration dimensions. (+IS, +C)
2. Above the median on initiating structure and below the median on consideration. (+IS, -C)
3. Below the median on initiating structure and above the median on consideration. (-IS, +C)
4. Below the median on the initiating structure and consideration dimensions. (-IS, -C)

An analysis of variance was then computed on the performance level scores of the four groups of Extension agents. This procedure was used so that any significant difference among the four groups or between the high and low groups of each dimension could be detected. Raw performance scores were transformed to T values for use in this analysis. The performance scores were available from the personnel records of the Ohio Cooperative Extension Service and resulted from the use of the Ohio forced-choice evaluation system.

---

Comparison of Self- and Supervisory-Reports

In the previous chapter some difference was evident in the results of the FCLBQ (numerical) as completed by the agent on himself and on the agent by the supervisor. The low reliability of the self-report score was the most evident difference.

The range of raw scores from the self and supervisory administrations of the FCLBQ (numerical) can be observed in Table 10.

TABLE 10. Raw score ranges of Extension agents on the initiating structure and consideration dimensions as described by self and supervisor on the FCLBQ (numerical)

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Initiating Structure</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>12-46</td>
<td>20-55</td>
</tr>
<tr>
<td>Supervisor</td>
<td>6-42</td>
<td>11-62</td>
</tr>
</tbody>
</table>

Although some variation existed between describers in the range of scores from use of the FCLBQ (numerical), the difference did not seem to be extreme. The figures in Table 10 do not strongly support any difference between describers.

However, the mean scores of the two dimensions of leader behavior indicate a difference in the supervisory and self-reports. This is evident in Table 11.

The data in Table 11 reveal that the self-description scores of agents were higher on both leader behavior dimensions than the supervisory-description. Both groups of describers apparently view the staff as exhibiting behavior more like the
consideration dimension than initiating structure, which was evident from the higher scores on the consideration dimension.

**TABLE 11.** Mean scores of Extension agents on a fourteen tetrad FCLBQ (numerical) for each of two leader behavior dimensions as described by self and supervisor

<table>
<thead>
<tr>
<th>Describer</th>
<th>Initiating Structure</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>26.8</td>
<td>37.0</td>
</tr>
<tr>
<td>Supervisor</td>
<td>24.1</td>
<td>29.3</td>
</tr>
</tbody>
</table>

The researcher observed the relationship of the two describers in another way by correlating the tetrad scores of one describer with the other describer. This is shown in Table 12.

**TABLE 12.** Correlation of tetrad scores between supervisory and self-description on fourteen tetrad FCLBQ (numerical) for each dimension of leader behavior

<table>
<thead>
<tr>
<th>Leader Behavior Dimension</th>
<th>r Value&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiating structure</td>
<td>.13</td>
</tr>
<tr>
<td>Consideration</td>
<td>.04</td>
</tr>
<tr>
<td>Total instrument</td>
<td>.08</td>
</tr>
</tbody>
</table>

<sup>a</sup>All are n.s.

The correlations in Table 12 show a very limited relationship between the supervisory and self-report data. In no case were the values significant.

The writer believed the lack of relationship between description of agents by themselves and supervisors does not
necessarily mean that one was right and another wrong. However, the low reliability when completed by self, as reported in Chapter III, would indicate that limited confidence could be placed in the self-descriptions.

In the following analysis of data, self and supervisory-descriptions are discussed, even though the writer had limited confidence in the self-description.

**Analysis of Personnel Performance Scores in Relation to Agent Classification**

As indicated in the brief introduction, the scores on each leader behavior dimension were used to classify the Extension agents into four groups. The four groups were:

1. Above the median on initiating structure and consideration. (++)
2. Above the median on initiating structure and below the median on consideration. (+−)
3. Below the median on initiating structure and above the median on consideration. (−+)
4. Below the median on initiating structure and consideration. (−−)

All 185 Extension agents were classified into these four groups using two different sets of data. They were classified using self-report scores and supervisory-report scores. The median score was used as the point for dividing scores into high and low classes. These mid-points were essentially the same as the means indicated in Table 11.
The analysis of variance was then computed on the difference between mean personnel performance scores in each of the four classifications identified previously. The personnel performance data were secured from records of the Ohio Cooperative Extension Service. Each Extension agent had a raw score and a percentile score on his performance evaluation record. In order to use the analysis of variance, it was necessary to use a raw score or comparable standard score which could be considered as an interval level of measurement.

The standard score, T, was selected so that when combining data from each district the standard deviation for the individual district would be considered, permitting more uniformity of scoring throughout the state.

The actual analysis of data is discussed by describer categories. The first analysis uses the self-description data and was followed by supervisory-description data.

Performance Analysis—Self-Description Classification

As stated previously, the .30 odd-even reliability would tend to limit the confidence to be placed on further analysis of data which was selected on the basis of description of Extension agents by themselves on the FCLBQ (numerical). However, since these data were used only to place staff members into one of four groups, precision was not as essential. Thus, an analysis of personnel performance between the four groups might have some meaning.
In the process of placing agents above and below the median on each leader behavior dimension, the groups were not identical in size. The percentage of the total in each agent position is given in Table 13.

TABLE 13. Per cent of agents in each leader behavior group classification when described by self on the FCLBQ (numerical)

<table>
<thead>
<tr>
<th>Agent Position</th>
<th>+IS +C</th>
<th>+IS -C</th>
<th>-IS +C</th>
<th>-IS -C</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture (N=77)</td>
<td>32</td>
<td>26</td>
<td>20</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>Home Economics (N=58)</td>
<td>22</td>
<td>14</td>
<td>19</td>
<td>45</td>
<td>100</td>
</tr>
<tr>
<td>4-H (N = 50)</td>
<td>36</td>
<td>14</td>
<td>28</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>All (N = 185)</td>
<td>30</td>
<td>19</td>
<td>22</td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

As can be seen in Table 13, the groups were the largest where the agent was high or low on both dimensions. In the three agent positions the percentages were about equal with the exception of the home economics agents. The per cent of this group in the classification where agents were below the median on both leader behavior dimensions, was unusually high.

When the self-description classification was used, mean performance scores were computed on each of the group classifications for each agent position and for all agents. The variance ratio was computed on each agent position group. These data are found in Table 14.
TABLE 14. Mean personnel performance levels of county Extension agents classified according to leader behavior descriptions as completed by self

<table>
<thead>
<tr>
<th>Group Classification</th>
<th>+IS</th>
<th>+IS</th>
<th>-IS</th>
<th>-IS</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>+C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Agriculture (N = 77) 50.56  51.18  46.67  50.19  .73
Home Economics (N=58) 53.91  51.29  54.16  45.99  2.73
4-H (N = 50) 49.52  44.19  52.56  52.28  1.33
All (N = 185) 51.01  49.81  50.79  48.60  .64

aAll are n.s.

In Table 14 there are no significant differences among the four mean scores for each agent position. For example, when all agents were considered, the variation in mean scores ranged from 48.60 to 51.01. The .64 F value was much below the necessary 2.65 to be significant at the 5 per cent level.

A visual observation of the mean scores shows no consistent pattern among agent positions as to where the highest performance level is located. In summary, the mean differences were not significant and no single pattern was present among agent positions.

The highest F value, although not significant, was found with the agents in home economics. A test of interaction between the two leader behavior dimensions indicated no interaction was present. So a further analysis was necessary to determine whether one leader behavior dimension was contributing to the mean differences to provide an F value of that magnitude. This analysis is evident in Table 15.
It can be seen in Table 15 that the mean scores of the consideration dimension differ by almost seven points. This difference in mean scores on the consideration dimension was significant. The differences in means of the initiating structure dimension were not significant. Thus, the slight difference in performance in Table 14 can be attributed to the consideration factor.

The reported difference in mean performance scores of home economics agents on the consideration dimension was the only significant difference in the self-report data. Stated another way, the agents in home economics high on consideration perform at a higher level than do those low on consideration.

No further analysis was reported on the self-report data since the other F values were not high enough to be significant.

The research data using the supervisory-report differed considerably from the self-report.
Performance Analysis—Supervisory-Description Classifications

As reported in Chapter III, the data available from the completion of the FCLBQ (numerical) on the agents by members of the supervisory staff were much more reliable than the self-administered questionnaire data. Thus, the writer had more confidence in the data from the supervisory-description than the self-administration.

The same procedure was used for analysis of the data from the supervisory-reports as was used with the self-reports. The agents were grouped into one of four classifications based on the presence of the two dimensions of leader behavior.

The distribution was not equal in each group classification in the supervisory-report. The specific percentage distribution is evident in Table 16.

TABLE 16. Per cent of agents in each leader behavior group classification when described by supervisors on the FCLBQ (numerical)

<table>
<thead>
<tr>
<th>Agent Position</th>
<th>+IS +C</th>
<th>+IS -C</th>
<th>-IS +C</th>
<th>-IS -C</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture (N = 77)</td>
<td>40 12</td>
<td>13 35</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Economics (N=58)</td>
<td>28 17</td>
<td>21 34</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-H (N = 50)</td>
<td>30 16</td>
<td>12 42</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All (N = 185)</td>
<td>33 15</td>
<td>15 37</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Once again the end distributions were much larger than the groups where the agent was high on one dimension and low on the second. In this case the ++ and -- group per cents were larger than in the case of the self-description. The writer believed this difference to be due to more "halo" effect operating in the case of the supervisors than when the agent was described by self. This halo effect was possibly due to the inclusion of the numerical scales with the forced-choice instrument. In effect, the describer might be seeing the agent as high on everything if his overall impression was good.

The mean personnel performance score was then computed for each group classification for each agent position and for all agents. The variance ratio was computed on the mean differences of each agent position. These data are found in Table 17.

TABLE 17. Mean personnel performance scores of county Extension agents classified according to leader behavior descriptions as completed by supervisors

<table>
<thead>
<tr>
<th>Group Classification</th>
<th>+IS</th>
<th>+IS</th>
<th>-IS</th>
<th>-IS</th>
<th>F Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+C</td>
<td>-C</td>
<td>+C</td>
<td>-C</td>
<td></td>
</tr>
<tr>
<td>Agriculture (N = 77)</td>
<td>54.23</td>
<td>47.39</td>
<td>52.32</td>
<td>44.82</td>
<td>6.17a</td>
</tr>
<tr>
<td>Home Economics (N=58)</td>
<td>54.43</td>
<td>51.36</td>
<td>46.20</td>
<td>48.19</td>
<td>1.82b</td>
</tr>
<tr>
<td>4-H (N = 50)</td>
<td>57.89</td>
<td>55.01</td>
<td>47.73</td>
<td>43.66</td>
<td>10.74a</td>
</tr>
<tr>
<td>All (N = 185)</td>
<td>55.17</td>
<td>51.12</td>
<td>48.71</td>
<td>45.45</td>
<td>12.77a</td>
</tr>
</tbody>
</table>

aSignificant at .01 level.
bn.s.
In each agent position, in Table 17, the group classification with the highest mean score was that group of agents who were above the median on both the initiating structure and consideration leader behavior dimensions. This mean performance score ranged from 54.23 to 57.89 and in each agent position the mean score was two points or more above the next mean score.

This consistently high mean score substantiated the leader behavior theories which postulated that the most effective leader is the one who could balance the conflict between the needs of the individuals in the group and the institutional requirement of completing a task. The leader behavior group classification which was consistently high in this study was the leader referred to by Halpin as one who was high on both initiating structure and consideration. The same type leader in the theory presented by Getzels and Guba was referred to as the transactional leader.

Further study of the data in Table 17 reveals some variation in patterns of the next highest mean personnel performance score. In the analysis involving all agents, the lowest mean score was found in the group where the agents were low on both initiating structure and consideration. This was as expected for it was the reverse of the best performers.

The data on all agents also reveal that the agents who were high on initiating structure and low on consideration were more effective than the agents with just the opposite pattern.

---

In an earlier development stage, the supervisory and administrative staff perceived the ideal Extension agent as one who was much higher on consideration than he was on initiating structure. Thus, the ideal description suggested to the researcher that the second highest performance should have been the agents who were high on consideration and low on initiating structure. The opposite was true.

The 12.77 F value which measured the difference between the means of the four group classifications of all agents was significant at the .01 level. Thus, confidence could be placed in the data that the descending pattern of personnel performance values, as evident in Table 17, was significantly different.

When observing the mean performance scores of the agents in agriculture, the writer noted that the low initiating structure and high consideration classification was the second highest score. This was the opposite of what was present in the total agent means. However, when looking at all four mean performance scores there was a significant difference as evidenced by the 6.17 F value.

In the case of agents in 4-H club work, the mean personnel performance scores were arranged in the same descending order as was true with all agents. The differences were significant as evidenced from the 10.74 F value.

The agents in home economics had a range in mean performance scores from 46.20 to 54.43. However, these differences were not significant as seen by the low F value (1.82). The irregular
factor in this group of agent performance mean scores was that the agents below the median on both leader behavior dimensions were not the lowest performers.

Although the basic design of the study was to look at the analysis just presented, the statistical analysis completed provided the opportunity to look more carefully at the performance levels of agents above and below the median in each leader behavior dimension. An interaction factor was also available to serve as a measure of whether the two leader behavior dimensions were completely independent. The researcher has reported each leader behavior dimension only if a significant F value was present in the overall analysis. The mean performance scores of the agents in agriculture are found in Table 18.

TABLE 18. Mean personnel performance scores of county agricultural agents grouped above and below the median on two measures of leader behavior as described by supervisors

<table>
<thead>
<tr>
<th>Leader Behavior Dimension</th>
<th>Classification Around Median</th>
<th>t Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above</td>
<td>Below</td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>52.69</td>
<td>46.85</td>
</tr>
<tr>
<td>Consideration</td>
<td>53.77</td>
<td>45.46</td>
</tr>
</tbody>
</table>

<sup>a</sup>n.s.
<sup>b</sup>Significant at .05 level.

There was no significant interaction in the case of the county agricultural agents. Thus, the two leader behavior dimensions and their mean performance value differences can be interpreted as independent of each other. In Table 18 the writer
noted a fairly large difference in mean scores in both leader behavior dimensions. The mean difference in the consideration dimension was significant, while the difference in initiating structure means was not significant. This was interpreted to mean that all the variation in mean scores among the agricultural agents was attributable to the high level of supervisory perceived consideration activity.

Since the mean performance scores of the county 4-H club agents were significantly different, the researcher studied also each individual dimension of leader behavior and the interaction factor. There was no significant interaction so each leader behavior dimension could be considered independent. These data are presented in Table 19.

<table>
<thead>
<tr>
<th>Leader Behavior Dimension</th>
<th>Classification Around Median</th>
<th>t Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above</td>
<td>Below</td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>56.89</td>
<td>44.57</td>
</tr>
<tr>
<td>Consideration</td>
<td>54.99</td>
<td>46.79</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Significant at .01 level.
\textsuperscript{b}n.s.

The mean performance scores evident in Table 19 have a fairly large difference in each leader behavior dimension. However, only the initiating structure dimension difference was
significant. Thus, most of the difference in performance scores of the agents in 4-H was due to being high on initiating structure. This was the opposite of what was true in the case of the agents in agriculture.

There was also a significant F in Table 17 where all agents were combined. Since there had been no interaction factor previously, there was none in the total. The mean performance scores for all agents can be seen in Table 20.

**TABLE 20. Mean personnel performance scores of all agents grouped above and below the median on two measures of leader behavior as described by supervisors**

<table>
<thead>
<tr>
<th>Leader Behavior Dimension</th>
<th>Classification Around Median</th>
<th>t Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above</td>
<td>Below</td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>53.94</td>
<td>46.40</td>
</tr>
<tr>
<td>Consideration</td>
<td>53.16</td>
<td>47.06</td>
</tr>
</tbody>
</table>

^a Significant at .01 level.

n.s.

A relatively large range in mean performance scores can be observed on both dimensions of leader behavior in Table 20. However, only the initiating structure dimension was significantly different between the agents high and those low on this dimension. Interpreting from data relative to the total group of agents, the writer concluded that being high on initiating structure was more important in being a successful agent than was being high on consideration.
The analysis of the personnel performance data according to the classification of agents based on supervisory-report had several significant factors. In brief summary some of these were:

1. The leader behavior theory indicating a high score on both initiating structure and consideration as being the most effective leader was supported.

2. The least effective performing agents were those below the median on both leader behavior dimensions.

3. The data show the initiating structure dimension to be more important than consideration, even though the supervisory and administrative staff perceived the ideal agent to be higher on consideration.

4. In the case of the agriculture agents, the consideration dimension contributed most to effective performance, while with the 4-H club agents, the initiating structure dimension was most important.

5. There was no significant difference in the group classification mean scores of agents in home economics.

The study was also designed to explore the combined scores of supervisory and self-reports. It was perceived that a combined report might be more meaningful than separate reports. However, since the self-report data were of low reliability, the combined reports were not very meaningful. Thus, these data were not reported.

Although the type of analysis of performance levels completed to this point gives an indication of the type of individual
more nearly associated with effective performance, the researcher
desired to explore what combinations of agents worked together
most effectively. This analysis is provided in the next section
of this chapter.

Analysis of Personnel Performance Levels
of Agent Teams with Like and Unlike
Leader Behavior Patterns

In order to observe effectiveness as a team, it was
necessary to match agent teams on some logical basis. Since all
the agricultural agents in this study also served as county chair­
man, the researcher chose to determine what type of agent worked
best with the agricultural agents. Only the data from the de­
scription of agent leader behavior by supervisors were used.

The agricultural agents were sorted into the four basic
group classifications based on the relative presence of the two
leader behavior dimensions. Next, the county Extension agents in
home economics and 4-H were sorted to match the agricultural
agent with whom he or she worked.

Mean scores were computed for each leader behavior group
classification of home economics agents working with each leader
behavior group classification of the agricultural agents. A
similar procedure was used with the agents in 4-H work.

The mean scores of each group classification of agents
in home economics are presented in Table 21.

The agents in the first column of Table 21, who were above
the median on both leader behavior dimensions, had mean perform­
ance scores higher than almost any other group. The writer
interpreted this to mean that the "top quality" Extension agents performed at a high level, regardless of the type individual with whom they worked.

<table>
<thead>
<tr>
<th>Agricultural Agent Group Classification</th>
<th>Home Economics Agent Group Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+IS +C</td>
</tr>
<tr>
<td>+IS, +C</td>
<td>8 55.42</td>
</tr>
<tr>
<td>+IS, -C</td>
<td>2 58.30</td>
</tr>
<tr>
<td>-IS, +C</td>
<td>3 57.50</td>
</tr>
<tr>
<td>-IS, -C</td>
<td>1 52.20</td>
</tr>
</tbody>
</table>

Likewise, the home economics agents below the median on both leader behavior dimensions were generally ineffective performers. One exception was the group of home economics agents, low on both leader behavior dimensions, who worked with agricultural agents who were also low on both leader behavior dimensions.

Similar type mean scores on the county 4-H club agents can be found in Table 22.

The most effective performing agents in 4-H club work were those represented in the first two classification columns of Table 22. In all cases the performance level was well above the
mean of all agents (50.00). These were the agents high on both leader behavior dimensions or high on just initiating structure.

**TABLE 22.** Mean performance scores of county 4-H club agents in four leader behavior group classifications according to the leader behavior group classification of the agricultural agents in the same county

<table>
<thead>
<tr>
<th>Agricultural Agent Group Classification</th>
<th>+IS +C</th>
<th>+IS -C</th>
<th>-IS +C</th>
<th>-IS -C</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>M</td>
<td>N</td>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>+IS, +C</td>
<td>6</td>
<td>57.12</td>
<td>3</td>
<td>52.17</td>
</tr>
<tr>
<td>+IS, -C</td>
<td>1</td>
<td>51.60</td>
<td>1</td>
<td>57.70</td>
</tr>
<tr>
<td>-IS, +C</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>56.60</td>
</tr>
<tr>
<td>-IS, -C</td>
<td>4</td>
<td>59.62</td>
<td>3</td>
<td>56.43</td>
</tr>
</tbody>
</table>

The agents in the last column, which were the agents low on both leader behavior dimensions, all had low performance scores.

The writer interpreted these data to further substantiate a previous statement that the effective performing agent will be effective regardless of the type person he works with in a county.

In order to look specifically at whether home economics or 4-H agents worked best with other agents whose leader behavior was like or unlike their own, the researcher placed all the home agents and 4-H club agents into two groups.

The groups were (1) home economics and 4-H club agents who worked with agricultural agents of like leader behavior levels; (2) home economics and 4-H club agents who worked with
agricultural agents of unlike leader behavior. These data are given in Table 23.

TABLE 23. Mean performance scores of county Extension agents in home economics and 4-H who worked with agricultural agents whose leader behavior was like or unlike that of themselves

<table>
<thead>
<tr>
<th>Agent Position</th>
<th>Like Leader Behavior</th>
<th>Unlike Leader Behavior</th>
<th>t Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Economics Agent</td>
<td>53.44</td>
<td>49.02</td>
<td>2.27a</td>
</tr>
<tr>
<td>4-H Club Agent</td>
<td>46.86</td>
<td>50.71</td>
<td>1.57b</td>
</tr>
</tbody>
</table>

Significant at .05 level.

In Table 23 note that home economics agents working with agricultural agents of similar leader behavior levels performed at a significantly higher level than those home economics agents working with agricultural agents of unlike behavior. The mean difference of the two groups of 4-H club agents was not significant. However, the direction of the difference was reversed from what it was in the case of the home economics agents. The 4-H club agents tended to be more effective when with agricultural agents of unlike behavior.

In summary, the only significant difference was that home economics agents performed at a higher level when working with agricultural agents of similar leader behavior patterns.
Summary

The major purpose of this chapter was to present the data used to interpret the value of the Forced-Choice Leader Behavior Questionnaire (numerical) in identifying effective performing Extension agents. This validation was necessary in order to project future use with potential employees in selection and placement.

In summary, here are some of the major findings:

1. There was no correlation (.08) between the way the agents described their own leader behavior and how the supervisors described the agent's behavior.
2. Extension personnel perceived the leader behavior dimension of consideration as more like the effective agent than they did the initiating structure dimension.
3. When the results of self-description of Extension agents were used to determine leader behavior group classifications, there was no significant difference between the groups as to performance levels of a county Extension agent.
4. The most effective performing agents were those above the median on both the initiating structure and consideration leader behavior dimensions (based on the description of agents by the supervisors).
5. The least effective agents were those below the median on both initiating structure and consideration (based on the description of agents by the supervisors).
6. The initiating structure dimension of leader behavior was significantly related to performance level of the 4-H agents while the consideration dimension was not related to performance (based on the description of agents by the supervisors).

7. There was no difference in performance of the agricultural agents who were high or low on the initiating structure dimension, but there was a significant difference on the consideration dimension (based on the description of agents by the supervisors).

8. There was no significant difference between leader behavior group classifications and performance of home agents (based on the description of agents by the supervisors).

9. The agents in home economics and 4-H above the median on both leader behavior dimensions performed at a uniform high level, regardless of the leader behavior of the agricultural agent with whom they worked.

10. The home economics agents, who worked with agricultural agents of like leader behavior, performed slightly better than those who worked with agricultural agents of unlike behavior.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to develop an instrument which would measure the leader behavior dimensions of consideration and initiating structure and could be used as a self-description instrument as well as an instrument for superiors to describe their subordinates. The instrument was utilized to determine whether the leader behavior dimensions were related to performance in order for the instrument to be used in the selection and placement of county Extension agents.

Objectives

In order to fulfill the major purpose, the following specific objectives were used to direct the study:

1. Develop a scale to identify the leader behavior dimensions of initiating structure and consideration among Extension staff members which was sufficiently general to apply to potential staff members.

2. Measure the presence among county Extension agents of the two dimensions of leader behavior, initiating structure and consideration.

3. Determine differences in the personnel performance level of staff members according to the relative presence or
absence of the leader behavior dimensions of initiating structure and consideration.

**Design and Methodology**

The overall design for this study consisted of the utilization of a system of measuring the two leader behavior dimensions of initiating structure and consideration among all Ohio Extension staff members on whom a performance evaluation measure had been completed. These staff members were then classified into a two by two table grouping according to whether they were (1) high on both initiating structure and consideration, (2) high on initiating structure and low on consideration, (3) low on initiating structure and high on consideration, or (4) low on both initiating structure and consideration. These four groups were then compared for any significant difference between the groups on their personnel performance evaluation level. Significant differences were calculated for the total county staff and county Extension agents in agriculture, home economics, and 4-H. Mean scores were computed for similar groups of 4-H and home economics agents based on the overall leader behavior classification of the agricultural agents in the same county.

The specific design and methodology follows in more detail.
Development of Forced-Choice and Numerical Scale

The development of a combination forced-choice and numerical scale involved several distinct steps. Briefly, these were--

1. Phrases descriptive of leader behavior of county Extension agents were secured. Sources of the phrases were the Leader Behavior Description Questionnaire (LBDQ),¹ Extension Education literature, and Extension Education graduate students.

2. All phrases were edited for clarity.

3. All phrases were classified into the initiating structure and consideration dimensions of leader behavior. This was accomplished by having the members of the Extension supervisory and administrative staff sort the phrases into one of the two dimensions or reject the phrase.

4. A discrimination index (D.I.) and a preference index (P.I.) were then computed on each phrase. Indexes were computed on the initiating structure phrases from questionnaires which supervisors completed by indicating how well each phrase described a person high on initiating structure and a person low on this dimension. A similar procedure was used for the consideration phrases.

5. The discrimination and preference indexes were used to develop two basic forced-choice instruments.

¹Leader Behavior Description Questionnaire (Columbus, Ohio: Bureau of Business Research, College of Commerce and Administration, 1957).
a. The Forced-Choice Leader Behavior Questionnaire (FCLBQ) was a 16 tetrad instrument which had eight initiating structure and eight consideration tetrads. Each tetrad contained four positive type statements, all being from the same leader behavior dimension. While all four statements had the same P.I., only two had high D.I. values.

b. The Forced-Choice Leader Behavior Questionnaire composed of dyads [FCLBQ (dyad)] was a 12 item instrument with each pair of phrases having equal P.I.'s and D.I.'s. The only difference in a dyad was that each phrase was from a different leader behavior dimension.

6. A five-point numerical scale was added to the FCLBQ, making the third experimental instrument [FCLBQ (numerical)].

7. The three experimental scales, along with the LBDQ, were given to the Ohio Extension supervisory and administrative staff and a graduate Extension Education class for completion on their ideal Extension agent. The results of the three new scales were correlated with the results of the LBDQ to determine the extent to which they measured the same leader behavior dimensions.

8. The FCLBQ (numerical), selected as best of the three experimental scales, was then administered to 197 county Extension agents. It was also completed on these 197 agents by their immediate supervisors. The data so collected were
Analysis of Final Instrument

The data from the 185 completed returns and of the 14 final items on the FCLBQ (numerical) were used for validation of the instrument designed to aid in the selection and placement of county Extension agents.

After the numerical sums from the FCLBQ (numerical) were obtained, each agent was classified above or below the median on each leader behavior dimension. Thus each person could then be classified into one of four groups:

1. Above the median on both initiating structure and consideration. (++)
2. Above the median on initiating structure and below the median on consideration. (+-)
3. Below the median on initiating structure and above the median on consideration. (-+)
4. Below the median on both initiating structure and consideration. (--) 

This type of classification was completed using self-report and supervisory-report.

After classification of the agents into the four basic groups, an analysis of variance was computed on the personnel performance score of each agent. The performance score was secured from the records of the Ohio Cooperative Extension Service. It was obtained from an administration of the Ohio
Diagnostic Forced-Choice Performance Evaluation Instrument. The analysis of variance yielded a variance ratio for testing the significance between the means of each group classification. The analysis also yielded a test of interaction between the two dimensions of leader behavior. A significance test of the difference between the means of each leader behavior dimension independently was also available.

Each of the above analyses was available on each agent's position and on all agents, using self- and supervisory-reports.

When only the supervisory-report was used, mean scores of 4-H and home economics agents were computed for each group classification in relation to group classification of the agricultural agent in the same county. Thus, for the agricultural agents high on both dimensions, there was computed on their co-workers in the same county a mean personnel performance score on each of the four group classifications. This was also done for each of the other three groups of agricultural agents.

A t test for measuring differences in means was used to determine if agents worked best with other agents like themselves or with those different from themselves as perceived by measures of leader behavior.

**Major Findings**

The major findings are discussed in relation to each specific objective in the study. Within the third objective, reference is made to the hypotheses of the study.

---

Developing a Scale

In the process of developing a scale, several major findings were evident.

1. The concepts of initiating structure and consideration were generally acceptable to Extension personnel. Supervisory and administrative staff members easily placed all but nine phrases out of 85 into one of the two leader behavior dimensions.

2. The range of discrimination and preference indexes was much greater in the initiating structure phrases than it was on consideration phrases. The consideration P.I. range was 2.71-3.61, while the initiating structure P.I. was 2.00-3.58. This was interpreted to mean that the consideration phrases were perceived as generally being more like Extension agents than were the initiating structure phrases.

3. On three experimental scales and the LBDQ, the mean initiating structure and consideration scores of an ideal Extension agent, as described by supervisory and administrative staff and Extension agents in a graduate education course, were essentially alike.

4. The Forced-Choice Leader Behavior Questionnaire (numerical) correlated with the LBDQ at a .51 level on the consideration dimension and .68 on the initiating structure dimension. The straight forced-choice instrument (FCLBQ) correlated with the LBDQ at a .11 and .20 level on consideration and initiating
structure dimensions, respectively. The FCLBQ (dyad) correlated lower than the other two, so the FCLBQ (numerical) was chosen as the best instrument to use.

5. The individual initiating structure tetrad scores correlated relatively high (.37 to .70) with the sum of the initiating structure tetrad scores and relatively low (-.03 to .42) with the sum of the consideration tetrads. This was interpreted to mean that the initiating structure tetrads measured one distinct dimension of leader behavior.

6. The individual consideration tetrads correlated relatively high (.35 to .73) with the sum of the consideration tetrad scores and relatively low (-.06 to .40) with the sum of the initiating structure tetrads. This was interpreted to mean that the consideration tetrads measured one distinct dimension of leader behavior.

7. The final 14 item FCLBQ (numerical) had odd-even reliabilities of .68 and .69 when completed on agents by supervisors. Similar reliabilities for self-description of agents were .30 and .33.

Measuring Initiating Structure and Consideration

When describing an ideal agent on the LBDQ and the FCLBQ (numerical), the supervisory and administrative staff apparently perceived the consideration dimension as being more like the ideal Extension agent than they did the initiating structure dimension. The mean scores on the LBDQ were 39.6 for initiating
structure and 48.3 for consideration. Comparable scores for the FCLBQ (numerical) were 38.9 and 45.4.

On the final FCLBQ (numerical), the mean scores of the self-report were 26.8 on initiating structure and 37.0 on consideration. Comparable scores on the supervisory-report were 24.1 and 29.3. A correlation between self and supervisory-report of the tetrad scores was .13 on initiating structure tetrads and .04 on consideration tetrads. These data were interpreted to mean that supervisors did not describe the leader behavior of county Extension agents the same as the agents described themselves.

On the final FCLBQ (numerical), the consideration dimension of leader behavior was perceived as more like county Extension agents than was initiating structure. This was evident from the higher consideration scores from both the supervisory and self-reports.

Determining Differences in Personnel Performance

It was within the framework of the third objective that each of the hypotheses was developed. The discussion of findings will be in relation to each hypothesis. For research purposes and interpretation, each hypothesis was stated as a null hypothesis.

**Hypothesis number 1**

Hypothesis number one presupposed that Extension agents who were "high" on both leader behavior dimensions of
initiating structure and consideration did not perform at a higher level of competency than did other agents.

It was necessary that this hypothesis be considered when two different sets of data were used. These sets of data were determined by the describers who were self and supervisor.

Self-description data. -- Differences in personnel performance was first considered when agents were grouped into four classifications utilizing the data from self-description of agents on the FCLBQ (numerical).

The mean performance score for all agents who were above the median on both leader behavior dimensions was 51.01. Although this was the highest mean score of the four classifications, there was no significant difference between the means. The other three means were 49.81 (+), 50.79 (++, and 48.60 (––).

Referring to these data, it was necessary to accept the null hypothesis. There was no difference in performance levels of the four classifications.

Supervisory-description data. -- The second analysis of performance scores was completed on the four classifications which were determined from the data available from supervisors describing the behavior of agents. The mean performance score for all agents who were above the median on both leader behavior dimensions was 55.17. The other three mean scores were 51.12 (+), 48.71 (++, and 45.45 (––). This difference in mean values was significant at the .01 level. Thus, there was a difference with the agents high on both leader behavior dimensions being the
most effective performers. Conversely, those low on both dimensions were the least effective performers.

In addition to the overall analysis, the statistical treatment permitted the analysis of the contribution of each leader behavior dimension. The t values, for the dimensions independently, were 2.75 for initiating structure and 1.60 for consideration. Although the values show some contribution for each dimension, the initiating structure dimension was the only significant one (p < .01).

Based on the evidence just presented, it was necessary to reject the null hypothesis. Those agents above the median on both leader behavior dimensions performed at a higher level of competence than the other agents. It was further necessary to point out that the initiating structure dimension contributed the most to the differences in mean performance scores.

When considering both sets of data just presented, it was necessary to reject the null hypothesis. Agents above the median on both leader behavior dimensions were the more effective performers.

Hypothesis number 2

Hypothesis number two presupposed that performance and level of initiating structure and consideration was not similar for the agricultural, home economics, and 4-H agents.

It was again necessary to consider this hypothesis when two different sets of data were used, since two different sets of
describers were used in the development of the four agent classifications.

Self-description data.—The data presented in Table 24 resulted from an analysis of performance scores of four agent groups.

TABLE 24. Mean personnel performance scores of county Extension agents classified according to leader behavior descriptions as completed by self

<table>
<thead>
<tr>
<th>Group Classification</th>
<th>+IS</th>
<th>+IS</th>
<th>-IS</th>
<th>-IS</th>
<th>F Value^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural (N = 77)</td>
<td>50.56</td>
<td>51.18</td>
<td>46.67</td>
<td>50.19</td>
<td>0.73</td>
</tr>
<tr>
<td>Home Economics (N = 58)</td>
<td>53.91</td>
<td>51.29</td>
<td>54.16</td>
<td>45.99</td>
<td>2.73</td>
</tr>
<tr>
<td>4-H (N = 50)</td>
<td>49.52</td>
<td>44.19</td>
<td>52.56</td>
<td>52.28</td>
<td>1.33</td>
</tr>
</tbody>
</table>

^aAll are n.s.

The mean values in Table 24 show no pattern of uniformity between agent positions. Nor are any of the means within an agent position significantly different.

Based on these data, the null hypothesis was rejected. The agents' performance levels were essentially alike.

Supervisory-description data.—The second major group of data used was that which resulted from the group classifications of Extension agents based on supervisory-description. The data are summarized in Table 25.

In Table 25 the difference in means was significant in the case of the agents in agriculture and 4-H. Although
significantly different in both cases, the high mean scores were not in the same group classifications. A further analysis was made to determine the effect of each leader behavior dimension independently. In the case of the agricultural agents, the consideration dimension was found to be the major contributor to any difference in mean scores. In the case of the 4-H agents, just the opposite was true. The initiating structure dimension accounted for most of the difference in mean scores.

TABLE 25. Mean personnel performance scores of county Extension agents classified according to leader behavior descriptions as completed by supervisors

<table>
<thead>
<tr>
<th>Group Classification</th>
<th>+IS</th>
<th>+IS</th>
<th>-IS</th>
<th>-IS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0C</td>
<td>54.23</td>
<td>47.39</td>
<td>52.32</td>
<td>44.82</td>
<td>6.17a</td>
</tr>
<tr>
<td>2.0C</td>
<td>54.43</td>
<td>51.36</td>
<td>46.20</td>
<td>48.19</td>
<td>1.82b</td>
</tr>
<tr>
<td>3.0C</td>
<td>57.89</td>
<td>55.01</td>
<td>47.77</td>
<td>43.66</td>
<td>10.74a</td>
</tr>
</tbody>
</table>

aSignificant at .01 level.
bn.s.

The mean difference in the agents in home economics was not significant.

The one pattern of uniformity was that the highest performance level was always in the first column of Table 25, or the agents above the median on both leader behavior dimensions.

Thus, based on these data, the null hypothesis was accepted. The agents in the three different positions were not
similar as to which group classification had the most effective performing agents.

Considering both sets of data, it was necessary to accept the null hypothesis. The relationship between agent performance and level of initiating structure and consideration was not similar for the agricultural, home economics, and 4-H agents.

Hypothesis number 3

Hypothesis number three presupposed that the most effective Extension agent teams were those which had pairs of agents whose basic leader behavior pattern was not different as measured by level of initiating structure and consideration.

Only the data on agents as described by supervisors was used to test this hypothesis.

When comparing the performance scores of the home economics agents who worked with agricultural agents of like and unlike leader behavior, there was a significant difference at the .05 level. The mean score for home economics agents working with agricultural agents whose leader behavior was similar to their own was 53.44, while the mean score of home economics agents who worked with agricultural agents of unlike behavior was 49.02. The mean score pattern was reversed when considering the 4-H agents. That is, those working with agents of unlike behavior had a higher mean score. However, the differences were not significant.

The mean performance scores of those agents who were high on both leader behavior dimensions were high, regardless of the
leader behavior classification of the agricultural agent with whom they worked.

Based on these data the null hypothesis was accepted. Those agents who have the same level of leader behavior on initiating structure and consideration as their co-worker perform at a higher level.

Conclusions

Based on the evidence reported in the major findings, the following conclusions are presented:

1. The Forced-Choice Leader Behavior Questionnaire (numerical), when completed on Ohio county Extension agents, identified initiating structure and consideration as two distinct leader behavior dimensions.

   Although these two dimensions were known previously, this instrument was found to definitely measure two leader behavior dimensions of county Extension agents. The correlations of the initiating structure tetrad scores with the sum of the initiating structure tetrads were high, while the correlations with the consideration tetrads sum were low. Comparable correlations of the consideration tetrad scores were high when with consideration tetrad scores and low when with the initiating structure.

2. The Forced-Choice Leader Behavior Questionnaire (numerical) was fairly reliable when Extension agents were described by supervisors, but had a low reliability when used by agents as a self-description instrument.

   The odd-even reliability correlations of each leader behavior dimension were just below .70 when the instrument was completed by supervisors describing the agents. They were more
significant than the .30 reliabilities found when the agents described themselves on the Forced-Choice Leader Behavior Questionnaire (numerical).

3. Extension supervision and administration staff members perceived the ideal Extension agent as exhibiting behavior more like the leader behavior dimension of consideration than the leader behavior dimension of initiating structure.

This was true when the ideal agent was described on the Leader Behavior Description Questionnaire and on each of the three experimental scales developed in this study.

4. Supervisors perceived the leader behavior of agents differently than the agents perceived their own leader behavior.

The .08 correlation between the tetrads of the supervisory-report and the self-report would substantiate this lack of relationship. The mean scores on each of the two leader behavior dimensions were also different depending on whether the agent or his supervisor described the agent's leader behavior. This lack of relationship could be partially due to the low reliability of the data when agents described themselves.

5. There was no relationship between the level of leader behavior of an Extension agent as described by self and the level of performance of that individual as a county Extension agent.

This lack of relationship was evident since there was no difference in performance levels of the four arbitrarily classified groups of agents. The lack of relationship could easily have been caused by the lack of reliability when agents described their own leader behavior.
The following conclusions are based on the findings which were secured only from supervisors describing the leader behavior of agents:

6. The most effective performing Extension agents were those who were above the median on both the initiating structure and consideration leader behavior dimensions.

The leader behavior theory, upon which this study was based, postulated that this would be true. The theory was supported by the fact that, with all agent positions, the most effective agents were those above the median on both leader behavior dimensions.

7. The least effective Extension agents were those who were below the median on both initiating structure and consideration leader behavior dimensions.

This was true in all cases except with the agents in home economics.

8. The initiating structure and consideration dimensions of leader behavior were related less to level of performance of home economics agents than to the performance level of agents in agriculture and 4-H.

Analysis of the data revealed that the home economics agents were not consistent with the agents in the other two positions.

9. The consideration dimension of leader behavior was significantly related to performance of a county agricultural agent, while the dimension of initiating structure was not related to performance.

There was a significant difference between the means of the groups above and below the median on the consideration dimension. There was no difference on the initiating structure dimension.
10. The initiating structure dimension of leader behavior was significantly related to performance of the county 4-H agent, while the dimension of consideration was not significantly related to performance.

There was a significant relationship in the initiating structure dimension as indicated. There was some relationship, although not significant, between the consideration leader behavior dimension and performance level.

11. The effective Extension agents performed at a high level regardless of the leader behavior of the other agents working with them.

The most effective home economics agents were those high on both leader behavior dimensions. Thus, these agents were high performers regardless of the leader behavior pattern of the agricultural agents. The most effective 4-H club agents were those high on both leader behavior dimensions or high on just initiating structure. These individuals continued to be most effective regardless of their co-worker's leader behavior.

**Recommendations**

The recommendations which are given as a guide to implement the findings are based upon the conclusions of the study and the judgment of the writer.

1. Use the Forced-Choice Leader Behavior Questionnaire (numerical) as an aid for selection of Ohio county Extension agents on an experimental basis.

2. Follow these procedures in an experimental program:
   a. Ask at least one former superior of the potential employee to describe the leader behavior of the candidate
by using the Forced-Choice Leader Behavior Questionnaire (numerical). The type of superior must be one who has seen the potential employee in a situation where it would be possible to act as a leader of a group.

b. Consider male employees who score above the median on both leader behavior dimensions as excellent potential employees.

c. Check the reliability of the instrument after several individuals have completed it and correlate the results of its use with performance as an Extension agent as a cross validation of this study.

3. Have supervisors of the Ohio Cooperative Extension Service make increased effort to develop more understanding with county Extension agents about how each perceives the leader behavior of the Extension agent. The low reliability of the agents describing themselves, along with a fair reliability of the leader behavior description by supervisors, points out the need to continually review the job expectations and present behavior being exhibited by agents.

4. Appraise the Ohio Extension supervisory and administrative personnel that the leader behavior dimension of initiating structure is a more important factor in the effectiveness of a county Extension agent than perceived by the supervisors.

5. Place new county home economics agents with present agents whose leader behavior is similar to the new employee.
6. Establish further guidelines for selection and placement of Extension agents:

a. Have the Forced-Choice Leader Behavior Questionnaire (numerical) completed by potential employees after an oral instruction period in order to determine if this type of administration will make it more valuable as a self-description device.

b. Conduct additional research on procedures for development of reliable self-description instruments to be used in selection of employees.

c. Initiate further leader behavior research with Extension agents, particularly in the area of determining reasons for differences among agent positions.

d. Conduct further studies on the working relationships within a county Extension team for most effective performance.
TABLE 26. Placement of initial 85 phrases into the two dimensions of initiating structure and consideration by selected supervisory and administrative staff

<table>
<thead>
<tr>
<th>Phrase</th>
<th>Number of Times Placed</th>
<th>Initiating Structure</th>
<th>Consideration</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Initiating Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insists on being informed of decisions made by other people which are not in keeping with policies</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Checks to see that all in the group are working up to capacity</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Plans for future direction of groups</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Schedules work carefully to see that it is all accomplished</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Maintains definite standards of performance</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Expects everyone to maintain a high level of performance</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sees to it that work of others is coordinated as needed</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Assigns others particular tasks</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sees that everything goes according to schedule</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Is continually planning to get everything done</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Encourages the meeting of deadlines</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Encourages others to establish standard routines to get the task accomplished</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sees that all material needed for others is present</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Distributes work to be accomplished to co-workers</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Emphasizes the meeting of deadlines</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Gives information on how to do things</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Plans only that which can be accomplished effectively</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Phrase</td>
<td>Number of Times Placed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follows orderly methods of doing jobs</td>
<td>7 1 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make sure that his part in the organization is understood by those who have contact with him</td>
<td>7 1 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourages the use of uniform procedures</td>
<td>7 1 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is first in getting things started</td>
<td>7 1 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is always trying different ways to improve the groups with whom he works</td>
<td>7 1 0</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Emphasizes the quality of work</td>
<td>7 1 0</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Clarifies everyone's responsibilities</td>
<td>7 1 0</td>
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<td></td>
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</tr>
<tr>
<td>Evaluates others working with him</td>
<td>7 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plans each day's work in detail</td>
<td>7 0 1</td>
<td></td>
<td></td>
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<tr>
<td>Asks that all follow standard rules and regulations</td>
<td>7 0 1</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Encourages others to work until task is accomplished</td>
<td>6 2 0</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Meets with those working under him at regular times</td>
<td>6 2 0</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Offers new approaches to problems</td>
<td>6 2 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourages the &quot;slow&quot; people to work harder</td>
<td>6 1 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Believes that rules are to be strictly enforced</td>
<td>6 0 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asks others to make sacrifices to see that everything gets done</td>
<td>6 0 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criticizes poor work of co-workers and others working under him</td>
<td>6 0 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is more concerned with entire groups than with individuals in them</td>
<td>5 3 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lets fellow members know what is expected of them</td>
<td>5 3 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phrase</td>
<td>Number of Times Placed</td>
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</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>------------------------</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Makes his attitude clear to those with whom he works</td>
<td>5 3 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides means for communication among co-workers</td>
<td>5 3 0</td>
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<td></td>
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</tr>
<tr>
<td>Speaks in a manner not to be questioned</td>
<td>5 2 1</td>
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<tr>
<td>Rules others with an iron hand</td>
<td>5 0 3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Stresses competitiveness</td>
<td>5 0 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. Consideration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is interested in others as persons</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is careful to explain his actions</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourages others to express ideas and opinions</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Considers all suggestions for changes</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is friendly and approachable</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does little things to make it pleasant to work with him</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finds time to listen to others</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Always has time to talk over a problem</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expresses appreciation for a job well done</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixes freely</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliments others for their work</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works right along with group members</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helps individuals with personal problems</td>
<td>0 8 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes others feel at ease when talking with them</td>
<td>0 8 0</td>
<td></td>
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<tr>
<td>Has an open ear</td>
<td>1 7 0</td>
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</tr>
<tr>
<td>Phrase</td>
<td>Number of Times Placed</td>
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<td>-----------------------------------------------------------------------</td>
<td>------------------------</td>
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<tr>
<td></td>
<td>Initiating Structure</td>
<td>Consideration</td>
<td>Reject</td>
<td></td>
</tr>
<tr>
<td>Always consults with those concerned before making decisions</td>
<td>1</td>
<td>7</td>
<td>0</td>
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<tr>
<td>Has others share in making decisions</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Backs up co-workers in their action</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Is given special attention by those with whom he works</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Engages in friendly jokes and comments</td>
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<td>7</td>
<td>1</td>
<td></td>
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<tr>
<td>Criticizes only ideas and not people</td>
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<td>7</td>
<td>1</td>
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<tr>
<td>Does personal favors for others with whom he works</td>
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<td>7</td>
<td>1</td>
<td></td>
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<tr>
<td>Treats all people as his equal</td>
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<td>7</td>
<td>1</td>
<td></td>
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<tr>
<td>Participates in social events of groups</td>
<td>0</td>
<td>7</td>
<td>1</td>
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<tr>
<td>Looks out for the personal welfare of individuals around him</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td></td>
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<tr>
<td>Gives credit where credit is due</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td></td>
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<tr>
<td>Backs up what people under him do</td>
<td>3</td>
<td>5</td>
<td>0</td>
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<tr>
<td>Is willing to make changes</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Stands up for those working under him although it makes him unpopular</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Gets approval of affected groups in minor matters before going ahead</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Tries out his new ideas with others with whom he works</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Readily accepts new ideas</td>
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<td>5</td>
<td>1</td>
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<tr>
<td>Is easy to understand</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Lets others work at own speed</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Is always willing to compromise</td>
<td>1</td>
<td>5</td>
<td>2</td>
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</table>
TABLE 26.— (Continued)

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<tr>
<th>Phrase</th>
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<tr>
<td></td>
<td>Initiating Structure</td>
</tr>
<tr>
<td><strong>C. Rejects</strong></td>
<td></td>
</tr>
<tr>
<td>Gets group approval in important matters before going ahead</td>
<td>4</td>
</tr>
<tr>
<td>Helps others to see their areas of needed improvement</td>
<td>4</td>
</tr>
<tr>
<td>Carries out the promises he makes</td>
<td>4</td>
</tr>
<tr>
<td>Needs to explain ideas only once</td>
<td>4</td>
</tr>
<tr>
<td>Expects others to follow his ideas</td>
<td>4</td>
</tr>
<tr>
<td>Yields to others in discussions</td>
<td>3</td>
</tr>
<tr>
<td>Puts others' suggestions into operation</td>
<td>3</td>
</tr>
<tr>
<td>Reacts favorably to anything his co-workers do</td>
<td>0</td>
</tr>
<tr>
<td>Talks continually about how much should be done</td>
<td>4</td>
</tr>
</tbody>
</table>
November 22, 1963

TO: SUPERVISORY AND ADMINISTRATIVE STAFF

RE: Research Project Request

Dear Co-Worker:

Would you please participate in a very important stage in the research project which deals with the selection and placement of county Extension agents. This is a significant stage because 76 phrases must be evaluated in relation to actual agents known by staff members. Your cooperation is essential to make the study have more potential for utility.

Attached you will find:

(1) Two initiating structure descriptive phrase checklists of 41 items. (Forms A and B)
(2) Two consideration descriptive phrase checklists of 35 items. (Forms C and D)
(3) Appropriate instructions and reference cards.

Please complete the four short checklists according to instructions and return by December 7. Pre-testing of the instrument has shown that approximately 40 minutes are needed to complete everything enclosed. If you have any questions please call.

Thanks for your help.

Sincerely,

Clarence J. Cunningham
Leader Extension Training

CJC: km

enclosures
COUNTY EXTENSION AGENT DESCRIPTIVE PHRASES
INSTRUCTIONS FOR COMPLETION OF FORMS A AND B

On the attached forms you will find 41 phrases which are descriptive of the action of some county Extension agents, regardless of their specific area of responsibility.

In order to accurately complete these forms, it will be necessary for you to think of one Extension agent whom you consider to be highly inclined toward the leadership dimension of initiating structure, and one who possesses slightly these characteristics.

Initiating structure is a factor which denotes behavior of a leader in organizing and defining relationships between himself and the group, in defining interactions among group members, establishing ways of getting the job done, scheduling, and evaluating.

Select now one agent who is inclined to do the type of things indicated in the above description, regardless of his other characteristics, and one who is not inclined to do these things.

Please place the name of the agent selected as "high" on card A and the agent selected as "low" on card B. Using the following 20 point scale, indicate with a letter (A or B) the position where you would locate each agent in relation to where other agents you have known would fall on the dimension of initiating structure.

<table>
<thead>
<tr>
<th>20</th>
<th>19</th>
<th>18</th>
<th>17</th>
<th>16</th>
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</tbody>
</table>

Initiating Structure Scale

Using the agent on card A as a reference for Form A, circle the appropriate number which indicates the extent to which you feel each phrase describes this agent. Then complete a similar process on Form B, using as a reference the agent on card B.

Please score every phrase even if it is necessary for you to estimate the value for the person selected.

The term "group" in attached statements refers to any group with which agent has a leadership role.

After completion, destroy the cards with the agents' names and return this instruction sheet and completed forms A and B.

(PLEASE RETURN BY DECEMBER 7)
**FORM A**

Select the Column to the Left of the Phrase which Best Describes the Extent to which the Phrase Applies to the Agent You have Chosen and Circle the Corresponding Number

<table>
<thead>
<tr>
<th>Very High</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Very Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1</td>
<td>(1) Insists on being informed of decisions made by other people which are not in keeping with policies.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(2) Encourages others to work until task is accomplished.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(3) Meets with those working under him at regular times.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(4) Checks to see that all in the group are working up to capacity.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(5) Plans only that which can be accomplished effectively.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(6) Plans for future direction of the group.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(7) Schedules work carefully to see that it is all accomplished.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(8) Maintains definite standards of performance.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(9) Expects everyone to maintain a high level of performance.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(10) Follows orderly methods of doing jobs.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(11) Sees to it that work of others is coordinated as needed.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(12) Assigns others particular tasks.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(13) Sees that everything goes according to schedule.</td>
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<td></td>
</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(14) Is continually planning to get everything done.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(15) Makes sure that his part in the organization is understood by those who have contact with him.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(16) Encourages the &quot;slow&quot; people to work harder.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(17) Speaks in a manner not to be questioned.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(18) Encourages the meeting of deadlines</td>
<td></td>
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<td></td>
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<tr>
<td>Very High</td>
<td>Above Average</td>
<td>Average</td>
<td>Below Average</td>
<td>Very Limited</td>
</tr>
<tr>
<td>-----------</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(19) Encourages others to establish standard routines to get the task accomplished.</td>
<td></td>
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<tr>
<td>5 4 3 2 1</td>
<td>(20) Is more concerned with entire group than with individuals in it.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(21) Sees that all material needed for others is present.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(22) Evaluates others working with him.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(23) Distributes work to be accomplished to co-workers.</td>
<td></td>
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<tr>
<td>5 4 3 2 1</td>
<td>(24) Rules others with an iron hand.</td>
<td></td>
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<tr>
<td>5 4 3 2 1</td>
<td>(25) Encourages the use of uniform procedures.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(26) Is first in getting things started.</td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(27) Lets fellow members know what is expected of them.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(28) Plans each day's work in detail.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(29) Emphasizes the meeting of deadlines.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(30) Is always trying different ways to improve the group with which he works.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(31) Asks that all follow standard rules and regulations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(32) Believes that rules are to be strictly enforced.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(33) Asks others to make sacrifices to see that everything gets done.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(34) Makes his attitude clear to those with whom he works.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(35) Emphasizes the quality of work.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(36) Offers new approaches to problems.</td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(37) Provides means for communication among co-workers.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(38) Criticizes poor work of co-workers and others working under him.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(39) Stresses competitiveness.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(40) Clarifies everyone's responsibilities.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5 4 3 2 1</td>
<td>(41) Gives information on how to do things.</td>
<td></td>
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</tbody>
</table>

THANKS!!
Select the Column to the Left of the Phrase which Best Describes the Extent to which the Phrase Applies to the Agent You have Chosen and Circle the Corresponding Number

<table>
<thead>
<tr>
<th>Very High</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Very Limited</th>
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<tbody>
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<tr>
<td>(1) Insists on being informed of decisions made by other people which are not in keeping with policies.</td>
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<tr>
<td>(2) Encourages others to work until task is accomplished.</td>
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<td>(3) Meets with those working under him at regular times.</td>
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<tr>
<td>(4) Checks to see that all in the group are working up to capacity.</td>
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<td>(5) Plans only that which can be accomplished effectively.</td>
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<tr>
<td>(6) Plans for future direction of the group.</td>
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<tr>
<td>(7) Schedules work carefully to see that it is all accomplished.</td>
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<td>(8) Maintains definite standards of performance.</td>
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<tr>
<td>(9) Expects everyone to maintain a high level of performance.</td>
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<tr>
<td>(10) Follows orderly methods of doing jobs.</td>
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<tr>
<td>(11) Sees to it that work of others is coordinated as needed.</td>
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<tr>
<td>(12) Assigns others particular tasks.</td>
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<td>(13) Sees that everything goes according to schedule.</td>
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<tr>
<td>(14) Is continually planning to get everything done.</td>
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<tr>
<td>(15) Makes sure that his part in the organization is understood by those who have contact with him.</td>
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<tr>
<td>(16) Encourages the &quot;slow&quot; people to work harder.</td>
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<td>(17) Speaks in a manner not to be questioned.</td>
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<tr>
<td>(18) Encourages the meeting of deadlines</td>
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<tr>
<td>Very High</td>
<td>Above Average</td>
<td>Below Average</td>
<td>Very Limited</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(19)</td>
<td>Encourages others to establish standard routines to get the task accomplished.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(20)</td>
<td>Is more concerned with entire group than with individuals in it.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(21)</td>
<td>Sees that all material needed for others is present.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(22)</td>
<td>Evaluates others working with him.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(23)</td>
<td>Distributes work to be accomplished to co-workers.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(24)</td>
<td>Rules others with an iron hand.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(25)</td>
<td>Encourages the use of uniform procedures.</td>
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<td>5 4 3 2 1</td>
<td>(26)</td>
<td>Is first in getting things started.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(27)</td>
<td>Lets fellow members know what is expected of them.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(28)</td>
<td>Plans each day's work in detail.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(29)</td>
<td>Emphasizes the meeting of deadlines.</td>
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<td>5 4 3 2 1</td>
<td>(30)</td>
<td>Is always trying different ways to improve the group with which he works.</td>
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<td>5 4 3 2 1</td>
<td>(31)</td>
<td>Asks that all follow standard rules and regulations.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(32)</td>
<td>Believes that rules are to be strictly enforced.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(33)</td>
<td>Asks others to make sacrifices to see that everything gets done.</td>
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<td>5 4 3 2 1</td>
<td>(34)</td>
<td>Makes his attitude clear to those with whom he works.</td>
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<td>5 4 3 2 1</td>
<td>(35)</td>
<td>Emphasizes the quality of work.</td>
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<td>5 4 3 2 1</td>
<td>(36)</td>
<td>Offers new approaches to problems.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(37)</td>
<td>Provides means for communication among co-workers.</td>
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<td>5 4 3 2 1</td>
<td>(38)</td>
<td>Criticizes poor work of co-workers and others working under him.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(39)</td>
<td>Stresses competitiveness.</td>
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<td>5 4 3 2 1</td>
<td>(40)</td>
<td>Clarifies everyone's responsibilities.</td>
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<tr>
<td>5 4 3 2 1</td>
<td>(41)</td>
<td>Gives information on how to do things.</td>
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THANKS!!
COUNTY EXTENSION AGENT DESCRIPTIVE PHRASES
INSTRUCTIONS FOR COMPLETION OF FORMS C AND D

On the attached forms you will find 35 phrases which are descriptive of the action of some county Extension agents, regardless of their specific area of responsibility.

In order to accurately complete these forms, it will be necessary for you to think of one Extension agent whom you consider to be highly inclined toward the leadership dimension of consideration, and one who possesses slightly these characteristics.

The consideration factor involves behavior described as indicative of friendship, mutual trust, respect, and warmth between the leader and his group. Good "human relations" are evident by the leader in his association with his group. This factor does not imply any laxity in performance of duties by the leader.

Select now one agent who is inclined to do the type of things indicated in the above description, regardless of his other characteristics, and one who is not inclined to do these things.

Please place the name of the agent selected as "high" on card C and the agent selected as "low" on card D. Using the following 20 point scale, indicate with a letter (C or D) the position where you would locate each agent in relation to where other agents you have known would fall on the dimension of consideration.

<table>
<thead>
<tr>
<th>20</th>
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</table>

Consideration Scale

Using the agent on card C as a reference for Form C, circle the appropriate number which indicates the extent to which you feel each phrase describes this agent. Then complete a similar process on Form D, using as a reference the agent on card D.

Please score every phrase even if it is necessary for you to estimate the value for the person selected.

After completion, destroy the cards with the agents' names and return this instruction sheet and completed forms C and D.

(Please return by December 7)
Select the Column to the Left of the Phrase which Best Describes the Extent to which the Phrase Applies to the Agent You have Chosen and Circle the Corresponding Number

<table>
<thead>
<tr>
<th>Very High</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Very Limited</th>
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</tr>
<tr>
<td>(1) Is given special attention by those with whom he works.</td>
<td>(2) Is interested in others as persons.</td>
<td>(3) Has an open ear.</td>
<td>(4) Backs up what people under him do.</td>
<td>(5) Engages in friendly jokes and comments.</td>
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<tr>
<td>5 4 3 2 1</td>
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<tr>
<td>(6) Lets others work at own speed.</td>
<td>(7) Always consults with those concerned before making decisions.</td>
<td>(8) Readily accepts new ideas.</td>
<td>(9) Is careful to explain his actions.</td>
<td>(10) Encourages others to express ideas and opinions.</td>
</tr>
<tr>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
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</tr>
<tr>
<td>(11) Considers all suggestions for changes.</td>
<td>(12) Is friendly and approachable.</td>
<td>(13) Is willing to make changes.</td>
<td>(14) Criticizes only ideas and not people.</td>
<td>(15) Does personal favors for others with whom he works.</td>
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<td>5 4 3 2 1</td>
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<tr>
<td>(16) Does little things to make it pleasant to work with him.</td>
<td>(17) Finds time to listen to others.</td>
<td>(18) Always has time to talk over a problem.</td>
<td>(19) Expresses appreciation for a job well done.</td>
<td>(20) Has others share in making decisions.</td>
</tr>
</tbody>
</table>
(21) Is easy to understand.

(22) Mixes freely.

(23) Treats all people as his equal.

(24) Participates in social events of groups.

(25) Compliments others for their work.

(26) Works right along with group members.

(27) Gives credit where credit is due.

(28) Helps individuals with personal problems.

(29) Stands up for those working under him although it makes him unpopular.

(30) Gets approval of affected group in minor matters before going ahead.

(31) Is always willing to compromise.

(32) Tries out his new ideas with others with whom he works.

(33) Looks out for the personal welfare of individuals around him.

(34) Makes others feel at ease when talking with them.

(35)Backs up co-workers in their action.

THANKS!!
Select the Column to the Left of the Phrase which Best Describes the Extent to which the Phrase Applies to the Agent You have Chosen and Circle the Corresponding Number

<table>
<thead>
<tr>
<th>Very High</th>
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<th>Very Limited</th>
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<tbody>
<tr>
<td>5</td>
<td>4</td>
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</tbody>
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1. Is given special attention by those with whom he works.
2. Is interested in others as persons.
3. Has an open ear.
4. Backs up what people under him do.
5. Engages in friendly jokes and comments.
6. Lets others work at own speed.
7. Always consults with those concerned before making decisions.
8. Readily accepts new ideas.
9. Is careful to explain his actions.
10. Encourages others to express ideas and opinions.
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<td>5 4 3 2 1</td>
<td>(35) Backs up co-workers in their action.</td>
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THANKS!!
TABLE 27. Preference and discrimination indexes of the eight consideration tetrads used in the experimental scale

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<td></td>
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</table>
TABLE 29. Preference and discrimination indexes of the twelve dyads containing both initiating structure and consideration phrases

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<tr>
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<th>D.I.</th>
</tr>
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<td>2.89</td>
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<td>E</td>
<td>2.79</td>
<td>16</td>
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<tr>
<td></td>
<td>2.89</td>
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<td>F</td>
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<td>34</td>
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<td>30</td>
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<td></td>
<td>2.71</td>
<td>30</td>
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<tr>
<td>H</td>
<td>3.05</td>
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<td></td>
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<td>24</td>
</tr>
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<td>I</td>
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<td>2.97</td>
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</tr>
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<td>J</td>
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<td>L</td>
<td>3.08</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>3.05</td>
<td>36</td>
</tr>
</tbody>
</table>

*The initiating structure item is always listed at the top.*
TO: SUPERVISORY AND ADMINISTRATIVE STAFF

RE: RESEARCH PROJECT

Dear Co-Workers:

Thanks for your help in completing the necessary forms in the research dealing with Extension agent selection and placement. The research project is progressing satisfactorily and your help is needed on another segment of the research.

Enclosed are two questionnaires which include statements descriptive of the leadership behavior of county Extension agents. The one instrument has been validated as actually measuring two dimensions of leadership behavior. It is the purpose of this step in the research to see if these two instruments measure the same dimensions. To accomplish this you are being requested to do the following:

1. Select one Extension agent whom you consider to be the "ideal" leader or develop a mental image of your "ideal" Extension agent leader.

2. After selecting this "ideal" leader, complete the instruments using this person as the individual to be described on both questionnaires.

Instructions for each form are attached to the questionnaire. Please return by January 22, if possible. Thanks!

Sincerely,

Clarence J. Cunningham,
Leader
Extension Training

CJC/18s
Enclosures
TO: AGRICULTURAL EDUCATION 799A CLASS MEMBERS

RE: RESEARCH PROJECT

Dear Co-Workers:

Currently we are conducting a research project which deals with selection and placement of county Extension agents. Your help at the present stage of this research will certainly be appreciated.

Enclosed are two questionnaires which include statements descriptive of the leadership behavior of county Extension agents. The one instrument has been validated as actually measuring two dimensions of leadership behavior. It is the purpose of this step in the research to see if these two instruments measure the same dimensions. To accomplish this you are being requested to do the following:

1. Select one Extension agent whom you consider to be the "ideal" leader or develop a mental image of your "ideal" Extension agent leader.

2. After selecting this "ideal" leader, complete the instruments using this person as the individual to be described on both questionnaires.

Instructions for each form are attached to the questionnaire. Please return by January 22, if possible. Thanks!

Sincerely,

Clarence J. Cunningham
Leader
Extension Training

CJC/1ss
Enclosures
Code Number

QUESTIONNAIRE NUMBER 1

PLEASE READ THE INSTRUCTIONS AND COMPLETE THE ATTACHED FORM USING AS A REFERENCE THE "IDEAL" EXTENSION AGENT LEADER SELECTED BY YOU.

ESTIMATED COMPLETION TIME IS 15 MINUTES.
FORCED-CHOICE LEADERSHIP BEHAVIOR QUESTIONNAIRE

Name of person being described________________________________________

Name of describer______________________________________________________

The Forced-Choice Leadership Behavior Questionnaire is developed in two parts as follows:

Part I - Consists of 16 sets of four (4) descriptive phrases or statements in each set (called tetrads).

Part II - Consists of 12 sets of two (2) descriptive phrases or statements in each set (called dyads).

Specific instructions precede each part.

Part I - Descriptive Level Section

Two tasks are required in the completion of this section consisting of 16 tetrads.

(1) For each tetrad, select the two (2) phrases which are most like or best describe the person being considered. Indicate your choice by circling the letter preceding each of the two (2) phrases selected. In each tetrad you must circle two phrases even though all four phrases may be highly like or only slightly like the person being described.

(2) Re-read each phrase circled and think about how frequently the leader being described engages in the activity indicated in the phrase. Decide whether he always, often, occasionally, seldom, or never acts as described by the phrase. Indicate your decision by circling the number to the right of the phrase which describes the person being considered.

Use the following illustration as a guide:
Example of Tetrad

1. Select and circle two phrases which are most like or best describe the person.

2. Decide how frequently the person being described engages in the behavior indicated in each of the two phrases selected in step one and circle appropriate number.

- Expects everyone to maintain a high level of performance. 5 4 3 2 1
- Insists on being informed of decisions made by other people which are not in keeping with policies. 5 4 3 2 1
- Evaluates others working with him. 5 4 3 2 1
- Encourages others to work until task is accomplished. 5 4 3 2 1

Although each phrase in this tetrad described the person somewhat, the describer in this case felt "a" and "c" best described the person being considered. The describer noted, for the two phrases selected, the frequency with which the person described engaged in behavior indicated in the phrase. The person engaged in phrase "a" occasionally and in phrase "c" always, so the appropriate numbers were circled.

Following the above instructions please complete the 16 sets of phrases listed below based on your knowledge of the person being described:
1. Select and circle two phrases which are most like or best describe the person.

2. Decide how frequently the person being described engages in the behavior indicated in each of the two phrases selected in step one and circle the appropriate number.

(1)

a. Encourages others to express ideas and opinions. 5 4 3 2 1
b. Finds time to listen to others. 5 4 3 2 1
c. Treats all people as his equal. 5 4 3 2 1
d. Works right along with group members. 5 4 3 2 1

(2)

a. Emphasizes the quality of work. 5 4 3 2 1
b. Is always trying different ways to improve the group with which he works. 5 4 3 2 1
c. Is more concerned with entire group than with individuals in it. 5 4 3 2 1
d. Meets with those working under him at regular times. 5 4 3 2 1

(3)

a. Backs up what people under him do. 5 4 3 2 1
b. Is given special attention by those with whom he works. 5 4 3 2 1
c. Looks out for personal welfare of individuals around him. 5 4 3 2 1
d. Participates in social events of groups. 5 4 3 2 1
(4)
a. Clarifies everyone's responsibilities.  
   5 4 3 2 1
b. Emphasizes the meeting of deadlines.  
   5 4 3 2 1
c. Encourages others to establish standard routines to get the task accomplished.  
   5 4 3 2 1
d. Encourages the use of uniform procedures.  
   5 4 3 2 1

(5)
a. Backs up co-workers in their action.  
   5 4 3 2 1
b. Considers all suggestions for changes.  
   5 4 3 2 1
c. Is easy to understand.  
   5 4 3 2 1
d. Stands up for those working under him although it makes him unpopular.  
   5 4 3 2 1

(6)
a. Criticizes only ideas and not people.  
   5 4 3 2 1
b. Does little things to make it pleasant to work with him.  
   5 4 3 2 1
c. Is careful to explain his actions.  
   5 4 3 2 1
d. Tries out his new ideas with others with whom he works.  
   5 4 3 2 1

(7)
a. Always has time to talk over a problem.  
   5 4 3 2 1
b. Expresses appreciation for a job well done.  
   5 4 3 2 1
c. Is friendly and approachable.  
   5 4 3 2 1
d. Is interested in others as persons.  
   5 4 3 2 1
(8)

a. Compliments others for their work.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

b. Engages in friendly jokes and comments.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

c. Has an open ear.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

d. Is willing to make changes.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

(9)

a. Checks to see that all in the group are working up to capacity.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

b. Is continually planning to get everything done.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

c. Makes sure that his part in the organization is understood by those who have contact with him.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

d. Provides means for communication among co-workers.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

(10)

a. Always consults with those concerned before making decisions.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

b. Gets approval of affected group in minor matters before going ahead.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

c. Helps individuals with personal problems.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

d. Lets others work at own speed.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

(11)

a. Encourages others to work until task is accomplished.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

b. Evaluates others working with him.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

c. Ensures on being informed of decisions made by other people which are not in keeping with policies.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |

d. Plans only that which can be accomplished effectively.  
   | Always | Often | Occasionally | Never |
   | 5 4 3 2 1 |
(12)

a. Encourages the meeting of deadlines.  
   5 4 3 2 1

b. Gives information on how to do things.  
   5 4 3 2 1

c. Offers new approaches to problems.  
   5 4 3 2 1

d. Sees that all material needed for others is present.  
   5 4 3 2 1

(13)

a. Gives credit where credit is due.  
   5 4 3 2 1

b. Has others share in making decisions.  
   5 4 3 2 1

c. Makes others feel at ease when talking with them.  
   5 4 3 2 1

d. Mixes freely.  
   5 4 3 2 1

(14)

a. Is first in getting things started.  
   5 4 3 2 1

b. Maintains definite standards of performance.  
   5 4 3 2 1

c. Schedules work carefully to see that it is all accomplished.  
   5 4 3 2 1

d. Sees to it that work of others is coordinated as needed.  
   5 4 3 2 1

(15)

a. Distributes work to be accomplished to co-workers.  
   5 4 3 2 1

b. Follows orderly methods of doing jobs.  
   5 4 3 2 1

c. Lets fellow members know what is expected of them.  
   5 4 3 2 1

d. Makes his attitude clear to those with whom he works.  
   5 4 3 2 1
(16)

a. Asks others to make sacrifices to see that everything gets done. 5 4 3 2 1

b. Asks that all follow standard rules and regulations. 5 4 3 2 1

c. Encourages the "slow" people to work harder. 5 4 3 2 1

d. Sees that everything goes according to schedule. 5 4 3 2 1

Be sure you have two phrases selected in each tetrad and have indicated at the right how frequently the leader engages in the activity indicated in the two statements in each tetrad.

THANKS!
This section consists of 12 dyads or pairs of phrases. It is designed to have the describer indicate which phrase in each pair is most like or best describes the person being described.

This can be accomplished by reading each pair of statements and then circling the letter identifying the one statement which is most like or best describes the person being described.

Example of Dyad

a. Is easy to understand.
b. Follows orderly methods of doing jobs.

In this example the describer felt the "b" phrase best described the person so he circled letter "b."

Please proceed to complete the following 12 dyads by circling the one phrase in each pair which best describes the person being considered.

(1)

a. Gives information on how to do things.
b. Is easy to understand.

(2)

a. Does little things to make it pleasant to work with him.
b. Plans for future direction of the group.

(3)

a. Criticizes only ideas and not people.
b. Emphasizes the quality of work.

(4)

a. Encourages the use of uniform procedures.
b. Gets approval of affected group in minor matters before going ahead.

(5)

a. Asks that all follow standard rules and regulations.
b. Lets others work at own speed.
(6)
a. Lets fellow members know what is expected of them.
b. Tries out his new ideas with others with whom he works.

(7)
a. Encourages the "slow" people to work harder.
b. Is always willing to compromise.

(8)
a. Assigns others particular tasks.
b. Does personal favors for others with whom he works.

(9)
a. Checks to see that all in the group are working up to capacity.
b. Considers all suggestions for changes.

(10)
a. Provides means for communication among co-workers.
b. Stands up for those working under him although it makes him unpopular.

(11)
a. Emphasizes the meeting of deadlines.
b. Helps individuals with personal problems.

(12)
a. Backs up co-workers in their action.
b. Encourages the meeting of deadlines.

THANKS!

PLEASE COMPLETE QUESTIONNAIRE NUMBER 2 NOW.
QUESTIONNAIRE NUMBER 2

PLEASE READ THE INSTRUCTIONS AND COMPLETE THE ATTACHED FORM USING AS A REFERENCE THE SAME "IDEAL" EXTENSION AGENT LEADER YOU USED ON QUESTIONNAIRE NUMBER 1. NOTE INSTRUCTIONS READ YOU SHOULD DESCRIBE "YOUR SUPERVISOR." PLEASE DISREGARD THIS PART OF PRINTED INSTRUCTIONS AND DESCRIBE YOUR "IDEAL" EXTENSION AGENT.

ESTIMATED COMPLETION TIME IS 8 MINUTES.
LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE

Developed by staff members of
The Ohio State Leadership Studies

On the following pages is a list of items that may be used to describe the behavior of your supervisor. Each item describes a specific kind of behavior, but does not ask you to judge whether the behavior is desirable or undesirable. This is not a test of ability. It simply asks you to describe, as accurately as you can, the behavior of your supervisor.

Note: The term, "group," as employed in the following items, refers to a department, division, or other unit of organization which is supervised by the person being described.

The term "member," refers to all the people in the unit of organization which is supervised by the person being described.

Published by

Bureau of Business Research
College of Commerce and Administration
The Ohio State University
Columbus, Ohio

Copyright 1957
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 always, often, occasionally, seldom, or never acts as described by the item.
d. DRAW A CIRCLE around one of the five letters following the item to show the answer you have selected.

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

1. He does personal favors for group members. A B C D E
2. He makes his attitudes clear to the group. A B C D E
3. He does little things to make it pleasant to be a member of the group. A B C D E
4. He tries out his new ideas with the group. A B C D E
5. He acts as the real leader of the group. A B C D E
6. He is easy to understand. A B C D E
7. He rules with an iron hand. A B C D E
8. He finds time to listen to group members. A B C D E
9. He criticizes poor work. A B C D E
10. He gives advance notice of changes. A B C D E
11. He speaks in a manner not to be questioned. A B C D E
12. He keeps to himself. A B C D E
13. He looks out for the personal welfare of individual group members. A B C D E
14. He assigns group members to particular tasks. A B C D E
15. He is the spokesman of the group. A B C D E
16. He schedules the work to be done. A B C D E
17. He maintains definite standards of performance. 
18. He refuses to explain his actions. 
19. He keeps the group informed. 
20. He acts without consulting the group. 
21. He backs up the members in their actions. 
22. He emphasizes the meeting of deadlines. 
23. He treats all group members as his equals. 
24. He encourages the use of uniform procedures. 
25. He gets what he asks for from his superiors. 
26. He is willing to make changes. 
27. He makes sure that his part in the organization is understood by group members. 
28. He is friendly and approachable. 
29. He asks that group members follow standard rules and regulations. 
30. He fails to take necessary action. 
31. He makes group members feel at ease when talking with them. 
32. He lets group members know what is expected of them. 
33. He speaks as the representative of the group. 
34. He puts suggestions made by the group into operation. 
35. He sees to it that group members are working up to capacity. 
36. He lets other people take away his leadership in the group. 
37. He gets his superiors to act for the welfare of the group members. 
38. He gets group approval in important matters before going ahead. 
39. He sees to it that the work of group members is coordinated. 
40. He keeps the group working together as a team.
APPENDIX C
TO: Selected County Extension Agents

RE: Research Project on Selection and Placement of Extension Personnel

Dear Co-Workers:

Your cooperation is needed in a research project designed to assist with the selection and placement of personnel for the Ohio Cooperative Extension Service. The attached questionnaire is designed to measure the behavior of potential county Extension agents. As a part of the research, it is necessary to know how our present staff acts as indicated by self-description on the questionnaire.

We encourage you to assist in this project which will take about 12 minutes by:

1. Reading instructions carefully.
2. Complete questionnaire describing yourself as you feel you act when filling the role of leader in your county.
3. Return completed questionnaire to Extension Research and Training Office in enclosed envelope by February 26.

This questionnaire is not a measure of performance and will be used for research purposes only. As you note your name is not essential for each instrument is coded by number to identify it. All individual responses will be kept confidential.

Thanks for your assistance with this research project.

Sincerely,

Robert W. McCormick
Assistant Director

PLEASE RETURN ATTACHED BY FEBRUARY 26
FORCED-CHOICE LEADER BEHAVIOR QUESTIONNAIRE

FOR

COUNTY EXTENSION AGENTS

Developed By

Clarence J. Cunningham

Name of Person being Described _____________________________

Name of Describer _____________________________

Partially Adapted from
Leader Behavior Description Questionnaire
Developed By
Bureau of Business Research
The Ohio State University
Columbus, Ohio
INSTRUCTIONS

This questionnaire is designed for the description of behavior of leaders. Since there are no "right" or "wrong" answers, please be accurate in describing the person being considered.

Two tasks are required in the completion of the 16 sets of descriptive phrases called tetrads.

1. For each tetrad, select the two (2) phrases which are most like or best describe the person being considered. Indicate your choice by circling the letter preceding each of the two (2) phrases selected. In each tetrad you must circle two phrases even though all four phrases may be highly like or only slightly like the person being described.

2. Re-read each phrase circled and think about the extent which each phrase is descriptive of the leader being considered. Decide whether the phrase describes the person to a very great, above average, average, below average, or very limited extent. Indicate your decision by circling the number to the right of the phrase which describes the person being considered.

Use the following illustration as a guide:

Example of Tetrad

1. Select and circle two phrases which are most like or best describe the person.

   a. Expects everyone to maintain a high level of performance.

   b. Insists on being informed of decisions made by other people which are not in keeping with policies.

   c. Evaluates others working with him.

   d. Encourages others to work until task is accomplished.

2. Decide to what extent each of the two phrases selected in step one is descriptive of the person being considered. Circle appropriate number.

<table>
<thead>
<tr>
<th></th>
<th>very great</th>
<th>above average</th>
<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>5</td>
<td>4</td>
<td>(3)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>(5)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Although each phrase in this tetrad described the person somewhat, the describer in this case felt "a" and "c" best described the person being considered. The describer noted, for the two phrases selected, the extent which each phrase described the behavior of the person being considered. The person engaged in phrase "a" to an average extent, and in phrase "c" to a very great extent, so the appropriate numbers were circled.

Following the above instructions, please complete the 16 sets of phrases listed based on your knowledge of the person being described.
1. Select and circle two phrases which are most like or best describe the person.

2. Decide to what extent each of the two phrases selected in step one is descriptive of the person being considered. Circle appropriate number.

<table>
<thead>
<tr>
<th>(1)</th>
<th>Phrase</th>
<th>very great</th>
<th>above average</th>
<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Encourages others to express ideas and opinions.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Finds time to listen to others.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Treats all people as his equal.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Works right along with group members.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2)</th>
<th>Phrase</th>
<th>very great</th>
<th>above average</th>
<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Emphasizes the quality of work.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Is always trying different ways to improve the group with which he works.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Is more concerned with entire group than with individuals in it.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Meets with those working under him at regular times.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3)</th>
<th>Phrase</th>
<th>very great</th>
<th>above average</th>
<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Backs up what people under him do.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Is given special attention by those with whom he works.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Looks out for personal welfare of individuals around him.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Participates in social events of groups.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<th>(4)</th>
<th>Phrase</th>
<th>very great</th>
<th>above average</th>
<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
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<tbody>
<tr>
<td>a.</td>
<td>Clarifies everyone's responsibilities.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Emphasizes the meeting of deadlines.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Encourages others to establish standard routines to get the task accomplished.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Encourages the use of uniform procedures.</td>
<td>5</td>
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<td>3</td>
<td>2</td>
<td>1</td>
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<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Backs up co-workers in their action.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Considers all suggestions for changes.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Is easy to understand.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Stands up for those working under him although it makes him unpopular.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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</tbody>
</table>

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<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Criticizes only ideas and not people.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Does little things to make it pleasant to work with him.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Is careful to explain his actions.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Tries out his new ideas with others with whom he works.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Always has time to talk over a problem.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Expresses appreciation for a job well done.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Is friendly and approachable.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Is interested in others as persons.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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</tbody>
</table>

<table>
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<th>above average</th>
<th>average</th>
<th>below average</th>
<th>very limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Compliments others for their work.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b.</td>
<td>Engages in friendly jokes and comments.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c.</td>
<td>Has an open ear.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d.</td>
<td>Is willing to make changes.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
(9)
a. Checks to see that all in the group are working to capacity.  
   5  4  3  2  1
b. Is continually planning to get everything done.  
   5  4  3  2  1
c. Makes sure that his part in the organization is understood by those  
   who have contact with him.  
   5  4  3  2  1
d. Provides means for communication among co-workers.  
   5  4  3  2  1

(10)
a. Always consults with those concerned before making decisions.  
   5  4  3  2  1
b. Gets approval of affected group in minor matters before going ahead.  
   5  4  3  2  1
c. Helps individuals with personal problems.  
   5  4  3  2  1
d. Lets others work at own speed.  
   5  4  3  2  1

(11)
a. Encourages others to work until task is accomplished.  
   5  4  3  2  1
b. Evaluates others working with him.  
   5  4  3  2  1
c. Insists on being informed of decisions made by other people which  
   are not in keeping with policies.  
   5  4  3  2  1
d. Plans only that which can be accomplished effectively.  
   5  4  3  2  1

(12)
a. Encourages the meeting of deadlines.  
   5  4  3  2  1
b. Gives information on how to do things.  
   5  4  3  2  1
c. Offers new approaches to problems.  
   5  4  3  2  1
d. Sees that all material needed for others is present.  
   5  4  3  2  1

(13)
a. Gives credit where credit is due.  
   5  4  3  2  1
b. Has others share in making decisions.  
   5  4  3  2  1
c. Makes others feel at ease when talking with them.  
   5  4  3  2  1
d. Mixes freely.  
   5  4  3  2  1

(14)
a. Is first in getting things started.  
   5  4  3  2  1
b. Maintains definite standards of performance.  
   5  4  3  2  1
c. Schedules work carefully to see that it is all accomplished.  
   5  4  3  2  1
d. Sees to it that work of others is coordinated as needed.  
   5  4  3  2  1

(15)
a. Distributes work to be accomplished to co-workers.  
   5  4  3  2  1
b. Follows orderly methods of doing jobs.  
   5  4  3  2  1
c. Lets fellow members know what is expected of them.  
   5  4  3  2  1
d. Makes his attitude clear to those with whom he works.  
   5  4  3  2  1

(16)
a. Asks others to make sacrifices to see that everything gets done.  
   5  4  3  2  1
b. Ask that all follow standard rules and regulations.  
   5  4  3  2  1
c. Encourages the "slow" people to work harder.  
   5  4  3  2  1
d. Sees that everything goes according to schedule.  
   5  4  3  2  1

Be sure you have selected two phases in each tetrad and have indicated at the right to what  
extent each phase selected is descriptive of the leader being considered.

THANKS!
TABLE 30. Correlation of each initiating structure tetrad with sum of the seven initiating structure tetrads and with sum of the seven consideration tetrads on FCLBQ (numerical)  
$N = 185$

<table>
<thead>
<tr>
<th>Initiating Structure Tetrad Number</th>
<th>Initiating Structure</th>
<th>Consideration</th>
<th>Self</th>
<th>Supervisor</th>
<th>Self</th>
<th>Supervisor</th>
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<tbody>
<tr>
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TABLE 31. Correlation of each consideration tetrad with sum of the seven consideration tetrads and with sum of the eight initiating structure tetrads on FCLBQ (numerical)  
$N = 185$

<table>
<thead>
<tr>
<th>Consideration Tetrad Number</th>
<th>Consideration</th>
<th>Initiating Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self</td>
<td>Supervisor</td>
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<tr>
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<td>Self</td>
<td>Supervisor</td>
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