


1975

# A comparison of the effectiveness of two methods of teaching Human Resource Management I, action-training and lecture-discussion

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PARK, Leroy Harold, 1935-  
A COMPARISON OF THE EFFECTIVENESS OF TWO  
METHODS OF TEACHING HUMAN RESOURCE MANAGEMENT  
I: ACTION-TRAINING AND LECTURE-DISCUSSION.

Iowa State University, Ph.D., 1975  
Education, adult

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A comparison of the effectiveness of two methods  
of teaching Human Resource Management I:  
Action-training and lecture-discussion

by

Leroy Harold Park

A Dissertation Submitted to the  
Graduate Faculty in Partial Fulfillment of  
The Requirements for the Degree of  
DOCTOR OF PHILOSOPHY

Department: Professional Studies  
Major Subject: Education (Adult and Extension Education)

Approved:

Signature was redacted for privacy.

In Charge of Major Work

Signature was redacted for privacy.

For the ~~Major Department~~

Signature was redacted for privacy.

For ~~the~~ Graduate College

Iowa State University  
Ames, Iowa

1975

## TABLE OF CONTENTS

	Page
INTRODUCTION	1
Background	1
Statement of the Problem	3
Objectives	4
Definitions	5
Sample for the Study	6
Delimitations	7
REVIEW OF LITERATURE	8
The Human Relations School of Management	9
Human Relations and the Education Process	22
Action-Training	22
Related Studies	33
Summary	36a
METHODS OF PROCEDURE	37
Design of the Experiment	38
Experimental Treatments	39
Preparation of Materials for the Action-Training Group	41
Selection and Preparation of Evaluation Materials	42
Statistical Analyses	49
FINDINGS	52
Analysis of the Independent Variable Data	53
Experimental Effects	55

	Page
SUMMARY, DISCUSSION, AND RECOMMENDATIONS	73
Summary	73
Discussion	77
Recommendations	81
Recommendations for Further Study	82a
BIBLIOGRAPHY	83
ACKNOWLEDGMENTS	89
APPENDIX A. COURSE SYLLABUS	91
APPENDIX B. COMMON LESSON PLAN FOR DAY #1	94
APPENDIX C. EXAMPLE OF ACTION-TRAINING EXERCISE	96
APPENDIX D. PRETEST	100
APPENDIX E. MIDTERM EXAMINATION	119
APPENDIX F. FINAL EXAMINATION	128
APPENDIX G. REPORT OF STUDY TIME	140
APPENDIX H. ENGINEERING COUNCIL COURSE- INSTRUCTOR EVALUATION	142
APPENDIX I. ATTITUDINAL QUESTIONNAIRE	145
APPENDIX J. LEADERSHIP OPINION QUESTIONNAIRE	151
APPENDIX K. COURSE QUESTIONNAIRE	156

## LIST OF TABLES

Table	Page
1. Midterm examination mean scores for the two treatment conditions	43
2. Final examination mean scores for the two treatment conditions	44
3. Summary of the group means of the independent variable data by instructor	54
4. Unadjusted and adjusted mean gains in achievement for experimental and control groups when cumulative grade point average was used as a covariate	56
5. Unadjusted and adjusted mean gains in achievement for instructor groups when cumulative grade point average was used as a covariate	56
6. Unadjusted and adjusted mean gains in achievement for experimental and control groups when pretest scores were used as a covariate	57
7. Unadjusted and adjusted mean gains in achievement for instructor groups when pretest scores were used as a covariate	57
8. Nested design analysis of variance for mean gain in achievement test for experimental and control groups	58
9. Nested design analysis of variance for mean gain in achievement test for experimental groups	58
10. t test of posttest data on attitudes toward experimental courses by method	60
11. t tests of posttest data on attitudes toward experimental courses by teacher within method	60
12. Mean gain in students' attitudes toward personnel management, unions, and group activities by method and instructor	61

Table		Page
13.	Nested design analysis of variance for mean gain in attitude toward personnel management, unions, and group activity for experimental and control groups	62
14.	Nested design analysis of variance for mean gain in attitude toward personnel management, unions, and group activity for experimental groups	63
15.	Group means for individual students on individual items for attitude	64
16.	Mean gain in consideration and structure by method and instructor	71
17.	Nested design analysis of variance for mean gain in consideration for experimental and control groups	71
18.	Nested design analysis of variance for mean gain in consideration for experimental groups	72
19.	Tabulated responses to course evaluation by method, by instructor	80



## LIST OF FIGURES

Figure	Page
1. Managerial grid	15
2. Overlay of two leadership theories	17
3. Review of humanistic theories	21
4. A comparison of the assumptions about human nature and behavior underlying Theory X and Theory Y management philosophy	23

## INTRODUCTION

. . . students are a part of the educational process. contributors to it and not merely beneficiaries of it. They do as much to educate one another as teachers do, and sometimes they educate teachers (27, p. 242).

This statement would seem particularly applicable to courses such as Human Resource Management where philosophy is expressed as well as content. The philosophy--that people are an organization's most important asset and, as employees develop, so will the organization. The highest value is placed on the individual. The goal is to provide the maximum development of the humane use of human resources within the organization. The content--a blend of modern behavioristic management theories, coupled with an introduction to labor unions, labor law and collective bargaining, and practical management problems.

## Background

For most students who enroll in Industrial Engineering 424, Human Resource Management I (HRM-I), at Iowa State University, it is their first experience with a course designed to teach them how to manage the work of other people. Traditionally the course material has been covered through lecture-discussion led by the instructor. Class enrollment has been limited to fifteen to twenty-five students per section to facilitate discussion. Even so, some students choose to function as observers either unprepared or unwilling to partici-

pate. The students with a desire to contribute to class discussions are often deterred by the quantity of material presented by lecture.

Beach (6) states that the learning of ideas is enhanced when the students participate actively in the learning process. He further states,

It may save time if the instructor organizes all of the subject matter and explains it logically and clearly to his trainees. But, at least part of the time, opportunity should be provided for them to work on exercises, problems, and concepts and discover truths for themselves. . . . Courses whose purpose is to modify attitudes, facilitate behavioral adjustments, aid interpersonal relations, and promote self-insight are clearly superior when the trainer adopts a democratic, participative leadership style. High-member interaction is most conducive to these goals. A very authoritarian trainer tends to be ineffective in changing group attitudes, but a leader who generates high member involvement can more effectively modify opinions, prejudices, and emotions (p. 385).

These comments are of particular significance to the investigator since they are taken from the text assigned to students of Human Resource Management I.

It seems that it might be possible to develop action-training materials in which appropriate situations, conditions and activities are provided to facilitate learning the content material of Industrial Engineering 424 with minimum time spent in lecture. In addition, it seems that an action-training course might encourage frequent participation by all students, and better meet the needs of instructors, particularly in the study of learning theory, motivation theory and participative management units. Further, we should expect additional benefits

for students such as:

1. An increase in skills required for management;
2. A positive shift in their attitudes toward personnel management, labor unions, and group activities;
3. Establishing a climate that provides intrinsic motivation for students and instructors.

#### Statement of the Problem

This study was designed to investigate and also evaluate the effectiveness of action-training methods of teaching human resource management concepts compared to a conventional lecture-discussion method.

The ultimate goal of the study was to provide data to test the theory that action-training methods would increase teaching effectiveness in HRM-I courses. In order to accomplish this goal it was necessary to:

1. Develop action-training materials that would simulate real world problems related to information covered in the course material;
2. Design an experiment where one treatment group would take HRM-I in the conventional manner, another treatment group would take HRM-I in the action-training format, and a control group would receive no treatment;
3. Develop or obtain, and administer measurement instruments, i.e., examinations, attitudinal questionnaires and leadership opinion questionnaire to each of the

three groups;

4. Evaluate the performance of each of the treatment groups versus the performance of the other as well as the performance of the control group.

### Objectives

The objectives of this study are to answer the following questions:

1. Can an action-training course in HRM-I be developed to replace the conventional lecture-discussion format?
2. Are students more highly motivated in the area of human resource management by having been exposed to the action-training format than students exposed to the lecture-discussion format?
3. Is the attitude toward HRM-I more favorable for students receiving action-training instruction than for students receiving conventional instruction?
4. Is the attitude toward personnel management, unions, and group activities more favorable for students receiving action-training instruction in HRM-I than for students receiving conventional instruction?
5. Do students display a greater degree of consideration for others after receiving instruction in the action-training format than students trained in a traditional approach to a course in HRM-I?

## Definitions

In order to clarify the meanings of various terminology used in this study, the following definitions are given:

Lecture-discussion--informal lectures related to each reading assignment, with questions and comments encouraged by both instructor and students to stimulate interest and focus attention on the topic to be dealt with.

Action-training--the use of single and multiple role playing, incident processes, case studies and demonstrations to simulate the situation in which the student must operate in the real world. Its essence is that it requires some simulated behavior on the part of the trainee and that it affords him some feedback on the effect of that behavior from both the instructor and his peers.

Role playing--the spontaneous acting out of problems and situations. Students are placed, without script, in either superior or subordinate roles to give them the experience of approaching and viewing problems from different positions.

Case study--a complex situation typical of a real world problem is presented as a theme for discussing, "What to do?", "How could this problem have been prevented?", and "What are the issues involved?"

Incident process--the student is provided with a thumbnail sketch of some actual incident. The materials for a full-length case report are then assembled orally. This is done by

students asking questions of the instructor who gives the facts of the case only in response to specific questions. After the students have developed their case, they discuss in case study fashion.

Demonstrations--an application and display of student skills to one or more class member(s).

Pretest--attitudinal questionnaires, a Leadership Opinion Questionnaire and an achievement test given to students in all fall 1973 classes in Industrial Engineering 424 and one class in Industrial Engineering 351 before any type of formal instruction in human resource management has been undertaken.

Posttest--attitudinal questionnaires, a Leadership Opinion Questionnaire, an achievement test, and an instructor-course evaluation questionnaire given to the same students receiving the pretest at the end of the fall 1973 quarter.

#### Sample for the Study

The study was conducted during the fall quarter, 1973, at Iowa State University. Students enrolled in Industrial Engineering 424, Human Resource Management I, form the sample for the study. This course is designed as a two-course sequence to introduce senior-level and first-year graduate students to the principles and practices involved in effective management of people. The only prerequisite for this course is Industrial Engineering 351, Industrial Organization.

The textbooks used for the course were Personnel: The

Management of People at Work by Dale S. Beach, published by The Macmillan Company in 1970; Managing People at Work: Readings in Personnel by Dale S. Beach, published by The Macmillan Company in 1971; and A Layman's Guide to Basic Law under the National Labor Relations Act, published by the U.S. Government Printing Office, 1971.

#### Delimitations

The scope of this investigation was confined to the study of the effective use of action-training methods in the conduct of Industrial Engineering 424 for the fall quarter of 1973 at Iowa State University.

The investigation permitted an examination of the relative merits of teaching this course under two methods: (1) traditional approach of lecture-discussion and (2) action-training. Effectiveness was determined by an achievement test and attitudinal questionnaire developed by the investigator with the aid of other instructors of Industrial Engineering 424, by the Leadership Opinion Questionnaire designed to measure two dimensions of supervisory leadership, and by an instructor-course evaluation questionnaire.



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## REVIEW OF LITERATURE

Much of the knowledge and research in the area of human resource management has found its way into a management text without having first been shared with academicians and vice versa. This is unfortunate due to the close parallel between the functions of an industrial supervisor and a classroom instructor. In a role of leader, teacher, or climate builder, each is responsible for achieving a predetermined objective. Each must rely heavily on his most valuable asset--other humans. Nadler (58) supports this parallel when he depicted management as the "prime target in the Human Resource Developers student body, . . . and all line supervisors as part of his faculty." He stated, ". . . the job of the Human Resource Developer is to help everybody be a better educator" (pp. 174-246).

This chapter presents a general review of literature in the areas of human resource management with emphasis on learning theory and action-training. In the first area of the review, the writer discusses the "human relations" school of management and its implications for industrialists and educators. An attempt was made in the second part of the review to relate the human relations school of management to the education process. This was followed by descriptions of several forms of action-training. The final aspect of the review of literature focuses on research in the area of action-training applied to management development activities.

## The Human Relations School of Management

The way in which managers and teachers view these human resources can greatly alter their leadership behavior. For example, a mechanistic view of human nature which depicts man as lazy and work hateful, would result in authoritative behavior. A human relations view of man would be optimistic, and one that sought to capitalize on his potential rather than emphasize his weaknesses. This would result in more participative leadership practices either in the classroom or in the factory.

Educators in industrial engineering and management are concerned with combining technological training with studies of human relationships. At the turn of the century, this would seem an unlikely combination of topics to people reading the following statement by Frederick Taylor (77), the "father" of scientific management.

Now one of the very first requirements for a man who is fit to handle pig iron . . . is that he shall be so stupid and so phlegmatic that he more nearly resembles . . . the ox than any other type. . . . He must consequently be trained by a man more intelligent than himself (p. 59).

This statement is not surprising when one realizes that Taylor conceived of workers in terms analogous to machines and attempted to analyze the job in order to increase efficiency and productivity. In contrast with Taylor, Fayol (21) attempted to develop a broader theory concerned with general management. His thesis was that the

fundamental functions of management consisted of planning, organizing, "commanding," coordinating, and controlling.

In industry, the shift from a purely mechanistic view of man began with the now famous studies by Mayo (54) at Western Electric's Hawthorne works in Chicago. These studies, which revealed the importance of considering a worker as a man with feelings and the work situation as a society, gave birth to the human relations school of management dealing with the interaction of people in all types of endeavor.

The human relations school does not replace the traditional scientific management school. Rather, it alters the emphasis on the style of supervision and management. With increasing frequency, the focus is on the individual and how the organization can best serve his needs. Fayol's functions of management, for example, have stood the test of time with the exception that the function, "commanding" was reduced to "directing." Later, as the human relations movement gained ground, "directing" gave way to "motivate." Some authors, acknowledging that while one could not motivate another human being, recognized that one could actuate another individual by the establishment of a climate wherein motivation would be most likely to occur.

The shift in management philosophy from commanding to actuating, from an autocratic style to a participative style, has been guided by research in leadership behavior and human effectiveness. The principal studies were conducted by the

Institute of Social Research at the University of Michigan under the direction of Likert (48). Some of the significant findings of this research group were as follows:

1. There are significant differences in the leadership patterns of supervisors of high-producing groups and those of low-producing groups. High-producing groups tend to be employee-centered and concentrate attention on the human aspects of subordinates' problems and on building effective work groups with high performance standards. Low-producing supervisors are more production-centered, using pressure to "get out the work," but neglect important needs of their human organization.

2. The studies showed that departments in which men feel most free to set their own pace have above-average productivity, while those in which men feel least free to set their own pace have below-average productivity.

Managers who achieve high performance in their units accompanied by a sense of freedom, supervise by setting general goals and objectives and providing less specific direction than do the managers of low-producing units. . . . they use more participation and achieve higher involvement, greater interest in the work, and more responsibility for doing it than the low-producing managers (pp. 20-21).

3. Pressure through traditional management methods will bring impressive short-run results, but at a disproportionate cost in human assets. Participative methods enhance human resources for longer-run gains.

Likert divided management patterns into "participative"

(which he strongly favors), "consultative," "authoritative," and "exploitive authoritative." These differing managerial approaches are primarily based on differing attitudes of trust and confidence in subordinates. For example, the term "participative" features a high degree of trust and confidence in subordinates; a system of economic reward based on a high degree of participation; group involvement in setting goals, improving methods, and appraising progress toward goals; much interaction among superiors, individuals, and groups; extensive upward, downward, and lateral communications, which are typically friendly and trusting; widespread decision making integrated by overlapping groups, and extensive exercise of controls at lower levels (47, pp. 3-10).

In 1945, researchers at Ohio State University (24) identified "consideration" and "structure" as two important dimensions of leadership behavior. These dimensions were assessed by use of a Leadership Opinion Questionnaire which measures how the supervisor thinks he should behave in a leadership role.

A leader who scored high on the consideration dimension reflected that he had developed a work atmosphere of mutual trust, respect for subordinates' ideas, and consideration of subordinates' feelings. Such a leader encourages good superior-subordinate rapport and two-way communication. A low consideration score indicated that the leader is more impersonal in his dealings with subordinates.

A high initiating structure score indicated that the leader structures his role and those of his subordinates toward the attainment of goals. He is actively involved in planning work activities, communicating pertinent information, and scheduling work.

One research study compared foremen with different consideration and initiating structure scores on various performance measures (25). The first measure was obtained from proficiency ratings made by plant management. Other measures were unexcused absenteeism, accidents, formally filed grievances, and employee turnover. Indices for each of these measures were computed for each foreman's work group for an 11 month period.

Foremen who worked in production divisions were compared to foremen in nonproduction divisions on consideration scores, initiating structure scores and proficiency estimates. In the production divisions there was a positive relationship between proficiency and initiating structure and a negative relationship with consideration. In other words, the foremen who were rated by their superiors as most proficient scored high on structure and low on consideration. In the nonproduction divisions the relationships were reversed.

After comparing the leadership scores and foreman proficiency ratings, the researchers examined leadership scores and the performance measures--unexcused absenteeism, accidents, formally filed grievances, and employee turnover. In general,

it was determined that high structure and low consideration were related to an increase in absenteeism, accidents, grievances, and turnover.

Through later research, Blake and Mouton (11) developed a "Managerial Grid" to describe nine theories of how production through people is accomplished. The grid (shown in Figure 1) offers a schematic framework for comparing theories of interaction between production and human relationships. The horizontal axis represents concern for production. The vertical axis indicates concern for relationships among those engaged in production. Each is expressed as a nine-point scale with the "one" end representing minimum concern and the "nine" end representing maximum interest.

By orienting these two variables at right angles to one another, 81 possible relationships between concern for production and concern for relationships can be evaluated. Emphasis is placed on the corners and the midpoint of the grid to bring out the various ways in which production and human relationships interact. A management theory that exhibits a maximum concern for production and a minimal interest in people, 9,1, is characterized by high pressure, authoritarian style. The converse, 1,9, which shows a low concern for production and a high concern for people is often referred to as "country-club" management. Leadership that evidences a high concern for both people and production is labeled 9,9. This is held to be a most desirable pattern of management from



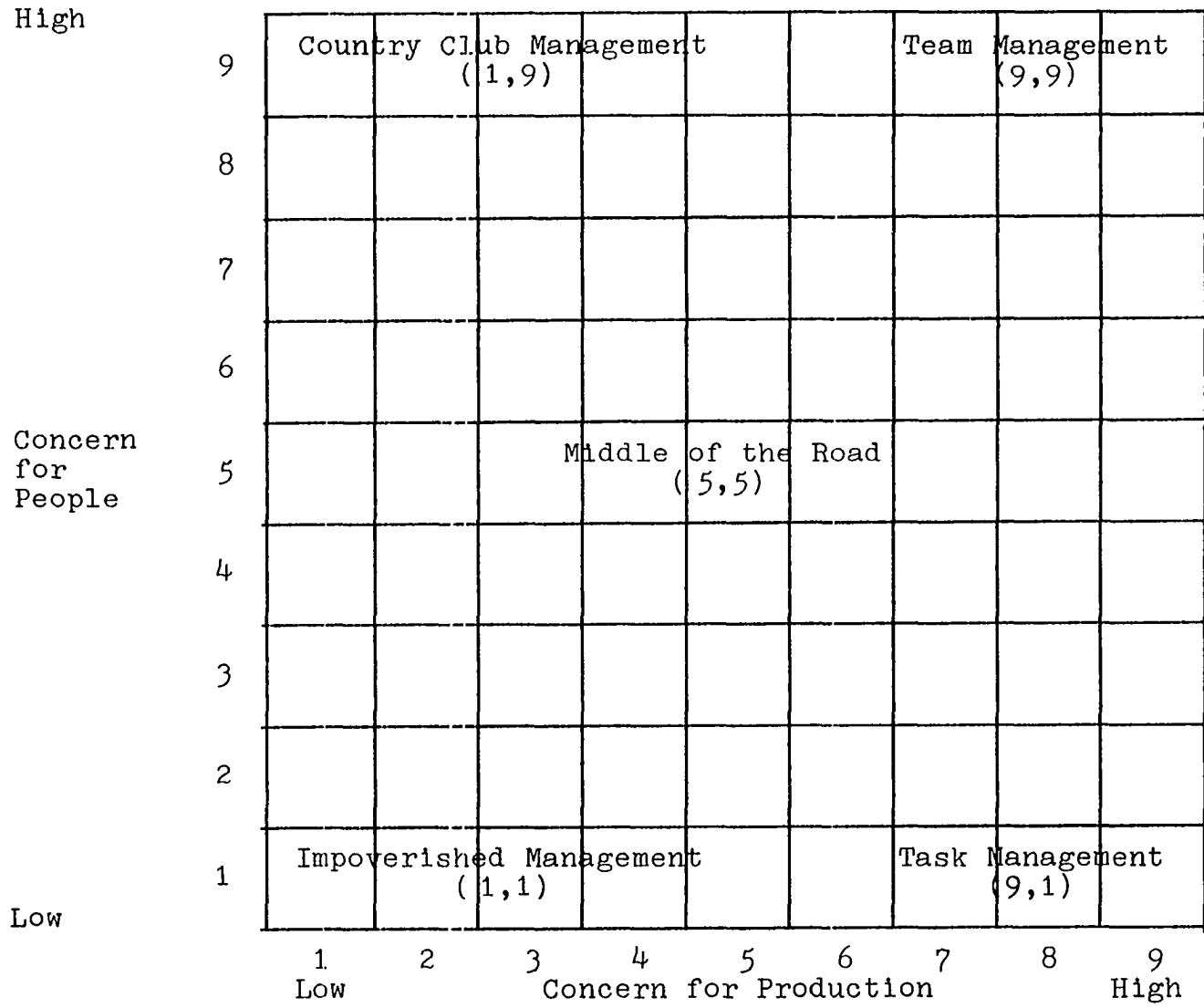


Figure 1. Managerial grid

the standpoint of conflict resolution, creativity, commitment, morale, and productivity.

The managerial grid has been integrated by Blanchard with the work of researchers at Ohio State University into an overlay theory of leadership by Blanchard (12, p. 68). (See Figure 2.)

In Blanchard's model, the leader with high structure scores will organize and define the roles of the members of his group. He will explain what each is to do and when, where and how the tasks are to be accomplished. Personal relationships between the leader and his subordinates are practically nonexistent. Workers are given little opportunity to use their potential.

The leader with high structure and high consideration scores opens up channels of communication, delegates responsibility, gives subordinates an opportunity to use their potential. He also emphasizes that a certain level and quality of production is essential and must be achieved. He seeks to build teams that will function effectively together as well as interact with peer groups.

A high consideration leader score concentrates on developing good human relationships with his employees. He gives the employees the authority to accomplish tasks in a manner of their own choosing without coercion. The leader with both low structure and low consideration scores allows workers to make nearly all the decisions and operates under

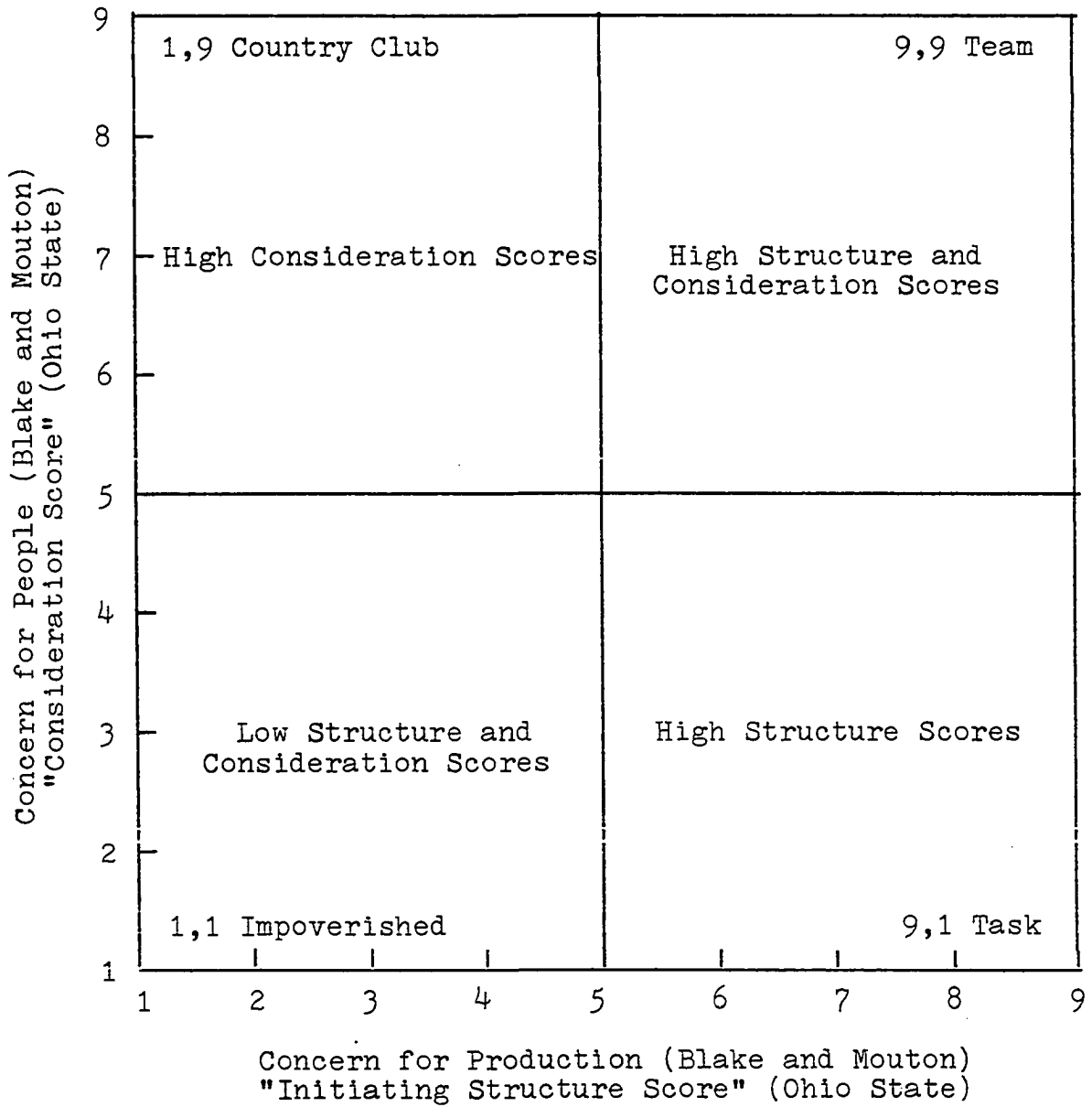


Figure 2. Overlay of two leadership theories

a "by-exception" policy.

A major factor in the leadership behavior of managers will be the assumptions they hold about human behavior. Traditional organization concepts neglected the importance of human assets. McGregor (55) pointed out that the traditionalists in business actually follow a theory of human behavior. He called it Theory X which assumes that:

1. The average human being has an inherent dislike of work and will avoid it if he can.
2. Because of this human characteristic of disliking work, most people must be coerced, controlled, directed, or threatened with punishment to get them to put forth adequate effort toward the achievement of organizational objectives.
3. The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, wants security above all (pp. 33-34).

In contrast he pointed out how psychological theory, which he called Theory Y, involves quite a different set of assumptions:

1. The expenditure of physical and mental effort in work is natural as play or rest.
2. External control and the threat of punishment are not the only means for bringing about effort toward organizational objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed.
3. Commitment to objectives is a function of the rewards associated with their achievement.
4. The average human being learns, under proper conditions, not only to accept but to seek responsibility.

5. The capacity to exercise a relatively high degree of imagination, ingenuity, and creativity in the solution of organizational problems is widely, not narrowly, distributed in the population.
6. Under the conditions of modern industrial life, the intellectual potentialities of the average human being are only partially utilized (pp. 47-48).

While McGregor's Theory Y, Blake and Mouton's 9,9 management, the Ohio State University studies, and Likert's participative group are not identical, there are important similarities between them. These theories complement the work of Maslow (52) and Herzberg (32). Maslow (52) proposed that individual needs can be ordered from lower to higher, and that as each need level is satisfied, the needs at the next level begin to determine the behavior. These needs are:

1. Physiological
2. Safety and security
3. Belonging and love needs
4. Esteem and status
5. Need for self-actualization.

The higher-level needs of belonging, esteem and self-actualization can only be realized after the lower-level physiological and safety needs are met.

Herzberg (32) introduced the concept that man has two sets of needs:

1. Lower order needs to avoid loss of life, hunger, pain, and other deprivations
2. Need to grow psychologically.

The results of his research revealed that one group of factors accounted for high levels of job satisfaction. These factors, called motivators, were achievement, recognition, work itself, responsibility, and advancement. All of these satisfiers related to the job content. The factors classified as hygienic factors were reported more often as part of a negative job attitude. The factors that contributed to an employee's dissatisfaction were company policy and administration, supervision, salary, interpersonal relations, and working conditions.

A graphic review of the humanistic theories presented is shown in Figure 3.

Maslow (53) stated we may be partners to dehumanization if we treat human beings as objects to be controlled instead of persons to be released for growth. Knowles (40) supported this belief by stating that organizations have two purposes: the widely accepted work purpose, coupled with a social system which was instrumental in helping people meet human needs and achieve human goals. Knowles looked to education as the means available to organizations to develop their personnel to perform the work of organization. By developing competencies through education that will enable them to work up the ladder of Maslow's need hierarchy, individuals will further the human purpose of the organization.

	<u>System 1</u>	<u>System 2</u>	<u>System 3</u>	<u>System 4</u>
Rensis Likert	Exploitative Authoritative	Benevolent Authoritative	Consultative	Participative Group
The Ohio State University studies	Low structure and low consideration scores	High considera- tion or high structure	Avg. considera- tion and avg. structure	High considera- tion and high structure
Blake and Mouton	1,1 Neutrality and Indecision	1,9            9,1 Unbalanced con- cern for people in production	5,5 Compromise Middle-of-the road	9,9 Integration of resources
Douglas McGregor	Theory X  Reductive	Traditional		Theory Y  Developmental
Abraham Maslow	Lower need fixation  Halted growth		Self-actualization (eupsychia)  Realized potential	
Frederick Herzberg	Meaningless work < - - Hygiene seeking - - - - -		Meaningful work - - - - - Motivation seeking - >	

Figure 3. Review of humanistic theories

## Human Relations and the Education Process

Humanistic education, like humanistic management, emphasizes the importance of the developmental approach in the evaluation and subsequent programming of all human skills and abilities. It insists that all components of the educational system stress the development of human potential . . . (79, p. 16).

The hope is that men, having experienced and learned the methods and values of cooperation and found them good in the processes of their own education will commit themselves to the perpetuation and extension of these methods and values (38).

Rogers (66) was convinced that significant learning occurs more readily in situations where the student is actively seeking to resolve problems such as those devised for case studies. He defined significant learning as

. . . learning which makes a difference in the individual's behavior, in the course of action he chooses in the future, in his attitudes and in his personality. It is a pervasive learning which is not just an accretion of knowledge, but which interpenetrates with every portion of his existence (p. 232).

### Action-Training

Knowles (40, pp. 94-95) presented a summary (Figure 4) of the assumptions about human nature and human behavior by managers subscribing to Theories X and Y as perceived by McGregor (55, pp. 33-34, 47-48). He then compared managerial assumptions with the assumptions implicit in current education and those relevant to significant experiential learning as perceived by Rogers (66, pp. 272-279).



---

Theory X assumptions  
about human nature  
(McGregor)

---

The average human being inherently dislikes work and will avoid it if he can.

Because of this characteristically human dislike of work, most people must be coerced, controlled, threatened in the interest of organizational objectives.

The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, wants security above all.

---

Theory Y assumptions  
about human nature

---

The expenditure of physical and mental effort is as natural as play or rest.

External control and the threat of punishment are not the only means for bringing about effort toward organizational objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed.

Commitment to objectives is a function of the rewards associated with their achievement.

The average human being learns, under proper conditions, not only to accept but to seek responsibility.

A high capacity for imagination, ingenuity, and creativity in solving organizational problems is widely, not narrowly distributed in the population.

Under the conditions of modern industrial life, the intellectual potential of the average human being is only partially utilized.

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Figure 4. A comparison of the assumptions about human nature and behavior underlying Theory X and Theory Y management philosophy

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Assumptions implicit in  
current education  
(Rogers)

---

The student cannot be trusted to pursue his own learning.

Presentation equals learning.

The aim of education is to accumulate brick upon brick of factual knowledge.

The truth is known.

Creative citizens develop from passive learners.

Evaluation is education and education is evaluation

---

Assumptions relevant to  
significant experiential learning

---

Human beings have a natural potentiality for learning.

Significant learning takes place when the subject matter is perceived by the student as relevant to his own purposes.

Much significant learning is acquired through doing.

Learning is facilitated by student's responsible participation in the learning process.

Self-initiated learning involving the whole person--feelings as well as intellect--is the most pervasive and lasting.

Creativity in learning is best facilitated when self-criticism and self-evaluation are primary, and evaluation by others is of secondary importance.

The most socially useful thing to learning in the modern world is the process of learning, a continuing openness to experience, an incorporation into oneself of the process of change.

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Figure 4 (Cont.)

Because the learner is a part of the teaching-learning transaction, his motivational, perceptual, emotional and attitudinal systems are very important factors in how he approaches learning and change (50). And because the learner responds in many ways unknown directly by the instructor at the time, it follows that the instructor needs a way of teaching which will integrate these pervasive learnings, skills, beliefs, attitudes, and ideals (30).

Kilpatrick (38) stated that teaching must base learning on inquiry, investigation, and critical study in situations in which genuine purposes, needs, and wants are experienced. Maslow (53) extended learning to what he refers to as fusion-knowledge, knowledge from within, by being what we are knowing.

Various forms of drama in learning recognize the value of fusion-knowledge. Moreno (57) developed a role-playing technique in which players act out a problem situation, usually without a script. The role of the instructor is to prepare or to provide a suitable activity. His presence, while not essential, is likely to result in the group inviting his criticism due to his greater experience and objectivity.

In discussing the merits of role playing for learning, Klein (39) wrote:

It introduces the actors as well as the observers to the situation with dramatic impact. It draws the group from a purely intellectual exercise into an emotional experience. The entire meeting is pulled into the stream of events which the members can feel as well as hear about. . . . When the meeting is focused on a problem or incident to this extent, discussion follows

easily and can have depth. We do not need to be concerned with how to cope with apathetic members and uninteresting meetings.

Such an exercise is a practice in human relations. One might liken this to scrimmage practice of the football team in its training session. The team play is perfected, mistakes are observed and corrected and the players learn how to cope with the problems of the game. Role playing is useful to learn how to work with other people, how to handle ourselves, and to observe our human relations mistakes as we practice coping with the problems of group life (p. 19).

Knowles (40) reported that less able group members may welcome the structuring of a role-play situation and its limitations to a manageable number of relationships, while the able and experienced players may vary their approaches in "play" and in competing with others of similar calibre.

Role playing has been shown to be effective in improving two important components of sensitivity: observation and empathy (73).

Another approach to experiential knowledge is the case method developed at the Harvard Business School. The objective of finding the correct solution (supplied by an authority in traditional teaching) is replaced by the objectives of using facts effectively and of developing a convincing rationale for a position or decision. That case method is still a popular method of teaching business administration at Harvard reflects a continuing desire to maintain a balance between skill and knowledge. Lawrence et al. (43) stated that skill and knowledge must be acquired hand in hand or in linked sequence; unless this is accomplished the art of utilization of knowledge has

not been gained.

Two objectives of the case method were proposed by Roethlisberger (65). The first objective had a negative connotation: to avoid the boredom, futility, and waste of training programs that ignore the attitudes, feelings, and experiences of those being trained. The more important objective was positive in nature: to enable the participants to learn how to approach more effectively than before, the human problems of administration.

Case discussions have been criticized due to the tendency of some participants to indulge in destructive criticism. To overcome this objection, Pigors and Myers (62) developed the incident process method of studying cases for seminars and courses on personnel administration at the Massachusetts Institute of Technology. As a way of learning from experience, the incident process has four distinct features:

1. Situational diagnosis and decision making based on a thorough study of the incident, obtaining of facts, stating the issue, deciding the issue, and determining what has been learned from the case
2. Opportunities to experiment within the above system
3. Use of group-dynamics techniques to establish and cultivate an atmosphere that favors learning with and from other people
4. Opportunities in a range of roles and relationships which offer experiences in practicing and benefiting

by skills of leadership (p. 444).

Teaching techniques of role playing, case method, and critical incident processes have one common element; they simulate the situation in which the trainee must operate in the real world. The essence of these teaching techniques is that they require some simulated behavior on the part of the trainee and that they afford him feedback on the effect of that behavior from both the trainer and his peers (60).

Do the teaching techniques described sometimes referred to as action-training aid learning? Dubin and Taveggia in The Teaching-Learning Paradox, after reviewing four decades of research concluded: "The old ideas about pedagogy at the college level are simply wrong . . . there is no measurable difference among truly distinctive methods of college instruction when evaluated by student performance on final examinations" (19, p. 35).

However, Beard (7) stated that too much contribution to the learning environment by the instructor leads to passivity and resignation on the part of the student.

Layton (45) reported on research that supports teaching methods which require the active participation of the learner when the instructor's goal is to attain student mastery of concepts or acquisition of problem-solving skills (p. 20). In the field of social sciences where emphasis can be on changing students' attitudes, free discussion is preferable to discussion in which the instructor plays a large part.

Since there may be no uniquely best solution, or even a good solution, there is less danger that the students will be drilled in specific types of solutions with the use of simulated problems or games (7).

Lindeman (49) supported action-training concepts when he stated:

Learning which is combined with action provides a peculiar and solid enrichment. If for example, you are interested in art, you will gain much more if you paint as well as look at pictures and read about the history of art. If you happen to be interested in politics, don't be satisfied with being a spectator: participate in political action. If you enjoy nature, refuse to be content with the vicarious experiences of the naturalists; become a naturalist yourself. In all of these ways learning becomes an integral part of living until finally the old distinction between life and education disappears. In short, life itself becomes a perpetual experience of learning (p. 142).

Participation in the classroom is further supported by statement, ". . . acquisition of facts or knowledge does not guarantee understandings, meanings, or abilities to use the facts" (16, p. 141).

Layton (45) offered the following advantages of participatory groups to the students and to the instructor:

1. That they all have an equal right of participation, and any one of them may initiate discussion or offer criticism
2. That each student is expected to give his own judgment or opinion, or to show his own method of reasoning. This is in accordance with a major aim of university education, namely to help the student to think for

himself and work on his own

3. That students are enabled to learn from each other and not to rely only upon the nominal "expert" in the form of the instructor . . .
4. That the instructor can "abdicate" temporarily his status as an authority, and take on the role of an interpreter and clarifier of what is going on in the group. . . . The advantage to the instructor is that he can observe the students beginning to think for themselves, and revealing the weaknesses in their understanding or knowledge which may need correcting
5. The instructor is able to encourage a "feedback" of the students' responses to the output of information which has been fed to them through . . . [course readings]
6. The instructor does not always abdicate . . .
7. An advantage of another kind is that the instructor is enabled to establish a personal relationship by face-to-face contact with student (p. 54).

The importance of group experiences are twofold as viewed by Kilpatrick: 1) A student involved in collecting and evaluating data about his own performance and the effect of his performance on others is more likely to change when needed, than if the suggestions for change come only from the "expert," the instructor; 2) Transfer of learnings about self and about group processes from the class situations to other situations



is more likely to occur if students are consciously working at the task of generalizing their classroom group experiences ( 8, p. 42).

Wohlking (81) suggested the use of behavior change to produce attitude change and thereby assure persistence of the altered behavior. Participating in interpersonal relations exercises in which a person is asked to try out a new or unfamiliar procedure might develop a favorable attitude or remove an unfavorable one. Festinger's (22) theory of cognitive dissonance predicts that if we focus on behavior change in educational programs, the likelihood will be increased that the trainee will act differently.

Simon (70) cited Duberman as emphasizing the fact that little important information can be transmitted unless an emotional transaction is simultaneously in progress. "An individual will not reveal his deepest assumptions nor be able to perceive those of another if their relationship is purely intellectual" (p. 6). In his critique of the public schools, Crisis in the Classroom, Silberman (69) concluded that "what is most wrong with American education is its failure to develop sensitive, autonomous, thinking, humane individuals" (p. 196).

Valett (79) recognized that the mere acquisition of knowledge, such as information and facts, is insufficient by itself if the individual is incapable of fully understanding, critically evaluating, and applying what he has learned. He would

have the highest instructional priority directed to man's emotive abilities, the shaping of affective desires, and the enhancement of man's powers of self-direction and control (p. 16).

A good deal of material has been developed for management education with little improvement in management behavior. In Alexander Hamilton Institute's Business Conditions Weekly (1), Sorcher and Goldstein pointed to some shortcomings of management education programs:

1. Most management education programs emphasize theoretical issues. They deal with the abstract importance of good communications, motivation, and constructive criticism. There is little or no attempt to give the trainees help in the practical application of these ideas.
2. Programs tend to emphasize what the instructor thinks is important, not what the trainees think is relevant.
3. They usually subject the trainees to passive listening, rather than involvement, reinforcement, imitation of appropriate behavior, and practice of new skills.

These traditional training methods have been based on the assumption that the way to change behavior is to change the attitude from which it springs. Sorcher and Goldstein by contrast, believed that it is easier to bring about specific behavior changes, and that attitude change would follow. In support of this belief they developed a training program for the General Electric Corporation based on the concept of

"behavior modeling," which allows trainees to "try on" behaviors by role playing. Research at Stanford University reported by Bandura (3) showed that almost any learning outcome that results from direct experience can also come about on a vicarious basis through observation of other people's behavior and its consequences for them.

#### Related Studies

In a study conducted by Boynton (14), management attitudes were assessed at the beginning and end of the second phase of a development program for managers in a federal government agency. In the first phase, the managers studied two textbooks, one on basic management principles, and the other on human relations in the work setting. In the second phase, the managers met for a two-week session devoted to lectures, discussions, role playing, and other action-training techniques. No attempt was made to discern cognitive knowledge learned from the textbooks. The only concern was with the change in attitudes toward specific areas of management theory during the second phase of the development program.

The questionnaire used in the assessment of attitudes covered six areas of management theory: work, organization, administration, government, union, and economics. The material covered was such that change might be expected in attitudes toward work theory, organization theory, and administration theory since these are most germane to the subject matter of

the program. Attitudes toward economic theory, government theory, and union theory served as control measures since they were not expected to change as a result of the treatment.

The sample included 166 managers who completed pretest and posttest questionnaires. The general nature of the change from pretest to posttest, as predicted, was toward more modern positions on items in the work theory area, the organization area, and the administration area. No significant changes occurred in the degree of acceptance of modern government and economic theory areas. The modern union theory positions were not expected to change; however, a negative change did occur on one item.

The overall picture that emerged was that attitudes toward management theory can be changed by a well-designed and well-conducted management development course. The opportunity to meet with other managers and resource persons to explore and discuss the areas of management and human relations was apparently quite a powerful tool in the changing of otherwise stable attitudes.

In this study, measurable changes occurred during the two-week session even though the participants had already read and studied the text material prior to the session. The session therefore provided the opportunity for the managers to examine their views, to share experiences, to reconcile their attitudes to the work situation, and to reinforce and support each other in the attitude change process (pp. 20-25).

Carron (17) evaluated a human relations training program for supervisors in a chemical company utilizing a pretest, posttest design with one control group. The experimental group was comprised of 23 male supervisors in engineering units. The control group was composed of 12 supervisors similar to the experimental group subjects in age, sex, job level, educational level, service with the company, and organization unit. No significant difference was indicated between the groups on each of the matching items as well as on the pretest scores. Measurement was made immediately before training, immediately after training, and 17 months later.

The six-month training program included case discussions, concepts, role playing, and demonstrations. Typically, the meetings were two hours in length with the first hour devoted to concepts and research findings followed by an hour of laboratory exercises that involved the participants. Two well-established instruments were used to measure the effect of training: Fleishman's Leadership Opinion Questionnaire and the Authoritarianism F-Scale of Adorno and others.

Carron hypothesized that as a result of training, a movement away from authoritarian attitudes toward more democratic, group centered attitudes would occur. Specifically, he expected a decrease in structure scores, an increase in consideration scores on the Fleishman LOQ, and a decrease in the authoritarianism score on the Adorno F-Scale.

Analysis of posttest scores showed that the structure

score for the experimental group decreased significantly (at the .025 level) as compared to the control group. Similar but insignificant differences in the structure scores were obtained in the follow-up period. The differences on the consideration scale were found not to be significantly different at either the posttraining or follow-up period. Analysis on the authoritarianism scale at the posttraining period showed significant differences between groups in the predicted direction. The follow-up period revealed no significant differences.

#### Summary

The review of literature has attempted to display the close parallel between the functions of an industrial supervisor and a classroom instructor. This parallel is amplified in a comparison of managerial assumptions about human behavior as perceived by McGregor (55) with assumptions implicit in current education and experiential learning as perceived by Rogers (66).

Action-training was selected as the method of choice to provide experiential learning to college students in a course emphasizing the "human relations" school of management. Therefore, articles which describe various forms of action-training are reviewed and contrasted with the lecture method of college instruction. These articles are supplemented by examples of research in the use of action-training methods for management

development.

The authors of the articles vary in their evaluation of the effect of teaching methods on student performance on final examinations. However, evidence indicates action-training is the preferred method of instruction when attitudinal change is desired.

## METHODS OF PROCEDURE

This study was conducted at Iowa State University during the fall quarter of 1973 to investigate and evaluate the effectiveness of action-training teaching techniques in a management course emphasizing human resources as compared to the conventional lecture-discussion methods for the same course. The 83 subjects engaged in the study consisted of upper-level undergraduate students and first-year graduate students from diverse curricula backgrounds enrolled in Industrial Engineering 424, Human Resource Management I.

Four sections of HRM-I were offered fall quarter, 1973. No attempt was made to influence or alter the students' selection of course section. The instructor assignments by section were not made known to the students until the first class period. The researcher taught two courses, one in the action-training format, the other in conventional lecture-discussion format. The two instructors engaged in teaching the remaining two sections each used a different format so that a total of 40 students received instruction in the conventional manner and 43 received the action-training form of instruction. Twenty students enrolled in a separate course, Industrial Engineering 351A entitled Industrial Organizations, provided the control group. This class and section, consisting primarily of upper-level undergraduate students, were used due to convenience of administration, size of class and lack of exposure of students



to courses in human relations management.

Instructors for all sections were experienced in teaching HRM-I in the traditional lecture-discussion method. The instructors assigned to the lecture-discussion sections followed their normal class routine with the following exceptions: the administration of pretest, a posttest common to all sections divided between a midterm and final examination, and their request of each student to complete on a weekly basis a form indicating the number of hours devoted to course study during the week.

The topics to be covered in the course and assigned readings were the same for each of the four sections receiving treatment. A common syllabus which appears in Appendix A was prepared.

#### Design of the Experiment

Due to administrative considerations, a nonequivalent control group design was employed (13, p. 376). The study was designed as follows:

<u>Class and section</u>	<u>Design</u>
IE 424A	$O_p T_1 O_m T_1 O_f$
IE 424D	$O_p T_1 O_m T_1 O_f$
IE 424B	$O_p T_2 O_m T_2 O_f$
IE 424C	$O_p T_2 O_m T_2 O_f$
IE 351A	$O_p \quad \quad \quad O_{mf}$

- $T_1$  = traditional lecture-discussion method
- $T_2$  = action-training method
- $O_p$  = pretest cognitive, Leadership Opinion Questionnaire and attitudinal questionnaire
- $O_m$  = midterm examination over material covered--cognitive only
- $O_f$  = final examination over material covered since midterm examination--cognitive and affective measurement tools of pretest coupled with course-instructor evaluation questionnaire
- $O_{mf}$  = a repeat of the pretest--both cognitive and affective.

The two experimental conditions and control group were administered and monitored during the entire academic quarter. For purpose of the experiment, each student receiving treatment was evaluated at least twice--once at midterm and again during final examination.

#### Experimental Treatments

There was no intent or desire on the part of the investigator to grade or evaluate student performance for the student's record. The primary intent of this experiment was to determine if either of the two treatments was more effective as measured by cognitive examinations and attitudinal questionnaires. All students participating in the experiment were told that the Industrial Engineering Department was conducting

research in the class in which they were enrolled (Appendix B). This statement was followed by the administration of the pre-tests with no further reminder of the experimental environment other than the weekly collection of hours of study slips.

#### Control group

Students in Industrial Engineering 351A served as the control group. While these students were exposed to several units directly related to personnel management or tangential to personnel management, the course emphasis was on principles and methods of organizations. The topics included production control, motion and time study, wage systems, cost control, purchasing, quality control, sales, depreciation, and finance.

#### Lecture-discussion

This group was comprised of two sections of Industrial Engineering 424. Section A with 22 students met two times each week, two hours each Tuesday and one hour each Thursday. Section D with 18 students met three times each week on Monday, Wednesday, and Friday for one hour at each meeting. No attempt was made by the investigator to influence lecture content other than by a common course syllabus created by the participating instructors.

#### Action-training

This group was also comprised of two sections of Industrial Engineering 424. Section C with 20 students met two times each week, one hour each Tuesday and two hours each

Thursday. Section B with 23 students met three times each week on Monday, Wednesday, and Friday for one hour at each meeting.

Instructors were to open each class period with a request for questions covering the assigned readings for that period. Ten per cent of the total period was planned for question response. The remainder of the period, the instructor's participation in a leadership role was to be held to a minimum after explaining the group activities for the period.

#### Number of students evaluated

All 43 students enrolled in the action-training treatment group when the study began completed the course. However, data omissions on posttests of three graduating seniors reduced the group size to 40 for purpose of analysis. The 40 students enrolled in the traditional lecture-discussion group completed the course with complete data for analysis.

Twenty students were enrolled in the control group with 19 completing the course. Fourteen completed all required data to be used in the analysis.

#### Preparation of Materials for the Action-Training Group

The instructors presenting the action-training method courses collaborated in selecting and developing materials for class activity to correspond as closely as possible with assigned readings for each class period. A total of 20

lessons were prepared. Two periods were given to testing and five periods were to be developed by student participation within each of the action-training sections. An example of a group participation activity for class period 12 is included in Appendix C.

#### Selection and Preparation of Evaluation Materials

An achievement test was developed from two sources. A total of 78 multiple choice questions and answers were obtained from the Instructor's Handbook (4) which accompanied the main text, Personnel: The Management of People at Work, by Dale S. Beach. No attempt was made to alter the questions, answers, or distractors. Seven essay questions were selected from a test-file maintained by the lead-professor of the human resource management courses. The combined test (Appendix D) was given to all subjects as a pretest and to the control group as both a pre- and posttest. The test was divided into two parts for the treatment groups and given as a midterm (Appendix E) and as a final examination (Appendix F).

#### Midterm examination

The midterm examination was administered to all students receiving treatment in the experiment. The examination consisted of 30 multiple choice and 4 essay questions. The Kuder-Richardson (formula 20) (KR-20) reliability coefficient for the midquarter examination of this experiment was .66.

Table 1 was prepared to present midterm examination mean scores for the two treatment groups.

Table 1. Midterm examination mean scores for the two treatment conditions

Treatment	Mean
Lecture-discussion	38.35
Action-training	39.73
Overall	39.04

### Final examination

The final examination was administered en masse to all students receiving treatment in the experiment. This examination consisted of 47 multiple choice and 3 essay questions.

An item analysis of responses to the multiple choice questions revealed the KR-20 equal to .72.

Table 2 was prepared to present final examination mean scores for the two treatment groups.

Table 2. Final examination mean scores for the two treatment conditions

Treatment	Mean
Lecture-discussion	48.58
Action-training	46.63
Overall	47.61

Composite score

Nunnally's (59, p. 230) formula 7-15 was used to estimate the reliability of the composite scores of the midterm and final examinations. The following results were obtained:

$$r_c = 1 - \frac{2 - r_m - r_f}{\sigma_c^2}$$

$$r_c = 1 - \frac{2 - 0.66 - 0.72}{3.24}$$

$$r_c = 0.81$$

where

$r_c$  = estimated reliability of the composite scores,

$r_m$  = 0.66 = estimated reliability of the midterm examination,

$r_f$  = 0.72 = estimated reliability of the final examination,

$\sigma_c^2 = 2 + 2(r_{mf}) = 3.24 =$  variance of the composite scores,

$r_{mf} = 0.6237$  correlation coefficient between midterm and final examinations.

### Study time

On eight specified dates throughout the quarter, each student was requested to report (Appendix G) the number of hours he had spent outside of the class studying Industrial Engineering 424 materials. These data were collected, converted to an average number of minutes studied each week, and coded for each student. Examination of the statistics describing study time prompted the investigator to question its validity and worth. Data pertaining to study time were abandoned as having little or no value in this experiment.

### Course-instructor evaluation

In past years the researcher has routinely administered the "Engineering Council Course-Instructor Evaluation" questionnaire (Appendix H) for purpose of measuring student attitude toward course content and attitude toward the instructor. This instrument was selected for this study as the items evaluated are designed to minimize differences between students within a class and maximize differences between classes. The reliability of each item depends on the number of student responses. The standard error of the estimate of the mean on an item is  $\sqrt{\frac{\text{var.}}{n}}$ . Of the 17 items measured, the one with the greatest variance had a mean of 3.40, a standard deviation of 1.40 and a variance of 1.21. The standard error of the estimate of the mean was 0.12 indicating the minimal effect of the standard error of the mean on the reliability of the instrument.



Personnel management attitudinal questionnaire

An attitudinal questionnaire (Appendix I) was developed to determine the student's attitudes toward personnel management, labor unions, and group activities. This questionnaire was based on an attitudinal scale used by Aiken and Dreger as discussed by Wisnieski (80) in a study with college freshmen enrolled in general mathematics at a southeastern college.

Preliminary investigation using this scale attested to its reliability ( $r=0.94$  for test-retest). In addition a test of independence between the scores on the attitude scale and scores on four items designed to measure attitudes toward academic subjects in general suggested that attitudes specific to mathematics were being measured (80, p. 24).

Several of the items for the present study were obtained by simply replacing the word "mathematics" by the words "personnel management," "labor unions," or "group" in items from the scale used by Aiken and Dreger. A list of items and the type of format to use were determined after consultation with specialists who had had previous experience with attitudinal questionnaires. The scale used was essentially an 11 point Likert scale (59). There were a total of 36 items in the final form. Of these 18 were positive and 18 were negative. A positive item was a statement expressing a favorable opinion of personnel management, labor unions, or group activity, while a negative item was a statement expressing an unfavorable opinion. A value from positive five to negative five was assigned to student responses, with positive five indicating the response was in complete agreement with a positive item or complete

disagreement with a negative item. The total value for an individual student ranged from -180 to +180.

### Leadership Opinion Questionnaire

The investigator expected students in each treatment group to afford more consideration toward others, become more group centered even at the possible expense of structure. The constructs of consideration and structure were identified in Blanchard's model discussed in chapter two. A commercially prepared instrument, Fleishman's Leadership Opinion Questionnaire (Appendix J) was selected to measure the magnitude and direction of movement.

The Leadership Opinion Questionnaire measures the two major dimensions of leadership behavior: consideration and structure. Two scores are provided by the questionnaire and are defined as follows:

Consideration (C)--reflects the extent to which one individual is likely to have job relationships with his subordinates characterized by mutual trust, respect for their ideas, consideration of their feelings, and a certain warmth between himself and them. A high score is indicative of a climate of good rapport and two-way communication. A low score indicates the individual is likely to be more impersonal in his relations with group members.

Structure (S)--reflects the extent to which an individual is likely to define and structure his own role and those of his subordinates toward "good attainment." A high score on this dimension characterizes individuals who play a very active role in directing group activities through planning, communicating information, scheduling, criticizing, trying out new ideas, and so forth. A low score characterizes individuals who are likely

to be relatively inactive in giving direction in these ways.

The (C) and (S) scales are independent of each other (one could be high on both, low on both, or high on one and low on the other.)

Correlations of the scores with measures of intelligence indicate the scales are not dependent on intelligence or verbal ability. Correlations with personality test measures indicate that for the most part, the questionnaire measures something not measured by personality measures.

Alternatives to each item are scored 0, 1, 2, 3, or 4. The maximum possible for either scale is 80, however, scores generally range from 30 to 70.

In general, the pattern that emerges as most undesirable for many situations is the one in which the leader is low in both consideration and structure. Low consideration scores are often indicative of an undesirable situation. Low (C) scores are indicative of ineffective leadership. Leaders with high (C) scores seem to be able to indulge in high levels of structure on task emphasis without significant changes in grievances or personnel turnover.

The primary use of the questionnaire is in training and evaluating the effectiveness of training programs, and is recognized as valid for that purpose.

## Statistical Analyses

The primary objectives of this study were to evaluate the effectiveness of the action-training method of instruction with regard to: (1) increasing student competency in Industrial Engineering 424 as measured by the mean change in students' scores on achievement tests from pretest to posttest; (2) effecting a favorable change in students' attitudes toward the course as measured by the students' responses on a questionnaire designed to determine attitude toward the course and instructor; (3) effecting a favorable change in students' attitudes toward personnel management, unions, and group activities as measured by the mean change in responses on pre- and postadministration of a questionnaire designed to determine attitude in each of these areas; and (4) increasing student consideration for others as measured by the mean change in students' responses on pre- and postadministrations of a questionnaire designed to determine consideration for others.

An analysis of covariance procedure was used to determine the effects of covariates on results of each of the evaluation instruments.

$$Y_{ijk} = \mu + A_i + C_{ij} + B(X_{ijk} - \bar{X} \dots) + e_{ijk}$$

where

$Y_{ijk}$  = the  $k^{\text{th}}$  variable for the  $j^{\text{th}}$  person in the  $i^{\text{th}}$  group

$\mu$  = the overall grand mean

- $A_i$  = the effect of the  $i^{\text{th}}$  treatment  
 $c_{ij}$  = the effect of the  $j^{\text{th}}$  instructor utilizing the  $i^{\text{th}}$  treatment  
 $B$  = the regression coefficient of Y on X  
 $X_{ijk}$  = the  $k^{\text{th}}$  variable for the  $j^{\text{th}}$  person in the  $i^{\text{th}}$  group  
 $\bar{X}...$  = the overall mean for the measured variable  
 $e_{ijk}$  = residual associated with the  $k^{\text{th}}$  variable for the  $j^{\text{th}}$  person in the  $i^{\text{th}}$  group.

A nested model for analysis of variance, shown below, was used to evaluate the first, third, and fourth objectives.

$$X_{ijk} = \mu + \alpha_i + \delta_{ij} + e_{ijk}$$

where

- $X_{ijk}$  = the  $k^{\text{th}}$  variable for the  $j^{\text{th}}$  instructor in the the  $i^{\text{th}}$  treatment group  
 $\mu$  = the overall grand mean  
 $\alpha_i$  = the effect of the  $i^{\text{th}}$  treatment  
 $\delta_{ij}$  = the effect of the  $j^{\text{th}}$  instructor utilizing the  $i^{\text{th}}$  treatment  
 $e_{ijk}$  = residual associated with the  $k^{\text{th}}$  variable for the  $j^{\text{th}}$  instructor in the  $i^{\text{th}}$  treatment group.

The evaluation of the second objective was accomplished by means of a t statistic shown in Equation 1 below. This statistic tests for a significant difference between the means of two groups of data of equal group variances.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S_p \sqrt{\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}} \quad (1)$$

where

$\bar{X}_1$  is the experimental treatment group mean

$\bar{X}_2$  is the traditional treatment group mean

$N_1$  is the number of students in the experimental treatment group

$N_2$  is the number of students in the traditional treatment group

$S_p^2$  is the pooled variance using the data from both groups.

The same equation was used to determine significant difference between group mean scores for instructors within each treatment group.

## FINDINGS

This chapter contains the findings of this study which compares action-training and traditional methods of instruction in Human Resource Management I. These findings will be explained primarily through the use of tables and figures of tabulated means and variances, along with discussion of the findings.

As outlined in chapter one, the investigation seeks answers to the following questions:

1. Can an action-training course in HRM-I be developed to replace the conventional lecture-discussion format?
2. Are students more highly motivated in the area of human resource management by having been exposed to the action-training format than students exposed to the lecture-discussion method?
3. Is the attitude toward HRM-I more favorable for students receiving action-training instruction than for students receiving conventional instruction?
4. Is the attitude toward personnel management, unions, and group activities more favorable for students receiving action-training instruction in HRM-I than for students receiving conventional instruction?
5. Do students display a greater consideration for others after receiving instruction in the action-training format than students trained in a traditional approach

to a course in human resource management?

These five questions provide the basis for generating the following hypotheses:

1. The level of achievement will be significantly higher for students receiving action-training method of instruction than for students trained in a traditional approach to a course in human resource management.
2. Attitude toward a course in human resource management will be significantly more favorable for students instructed by use of action-training method than for students trained in a traditional approach.
3. Attitude toward personnel management, unions, and group activities will be significantly more favorable for students receiving action-training instruction than those receiving traditional instruction in a human resource management course.
4. Consideration for others will be significantly higher for students receiving action-training instruction than for students trained in a traditional approach to a course in human resource management.

#### Analysis of the Independent Variable Data

Two independent variables, cumulative grade point average (GPA) and pretest score, were selected to describe the academic characteristics in the two treatment groups and the control group.



The data for each of these independent variables were collected for each student. The purpose of collecting and analyzing the independent variable data was to determine whether or not there were any meaningful differences in ability and/or aptitude among the students which might affect the outcome of the study.

Table 3 contains a summary of the group means of the independent variable data by instructor. Analysis of covariance was computed to determine the effects of the independent variable on each of the evaluation instruments.

Table 3. Summary of the group means of the independent variable data by instructor

Instructor	Method	Number of students	Variable	
			Cum. GPA	Pretest score
A	Lecture- discussion	22	2.64	41.91
B	Lecture- discussion	18	2.83	38.83
C	Action- training	22	2.99	43.86
D	Action- training	18	2.66	45.67
E	Control	14	2.86	41.21

## Experimental Effects

Hypothesis 1

The level of achievement will be significantly higher for students receiving action-training method of instruction than for students trained in a traditional approach to a course in human resource management.

The unadjusted and adjusted mean gains for achievement are presented in Table 4. The difference between the action-training and lecture-discussion increased from -2.40 to -3.37 when cumulative grade point average was used as a covariate. Table 5 displays unadjusted and adjusted mean gains in achievement for instructor groups when cumulative grade point average was used as a covariate.

The unadjusted and adjusted mean gains for achievement for experimental and control groups when pretest scores were used as a covariate are presented in Table 6. The difference between the action-training and lecture-discussion increased from -2.40 to -2.36. Table 7 displays unadjusted and adjusted mean gains in achievement for instructor groups when pretest scores were used as a covariate.

In applying the analysis of covariance procedure to the resulting scores for each administration of each evaluation instrument, no significant effect of the independent variables was observed. Therefore a nested design analysis of variance was used to compute mean gains. Table 8 reports these gains incorporating control group data. A significant F-ratio for method 26.68 and teacher within method 3.016 was obtained.

Table 4. Unadjusted and adjusted mean gains in achievement for experimental and control groups when cumulative grade point average was used as a covariate

Group	Mean gain	
	Unadjusted	Adjusted
Action-training (AT)	44.05	43.56
Lecture-discussion (LD)	46.45	46.93
Control (C)	1.93	1.48
(AT-C)	42.12	42.08
(LD-C)	44.52	45.45
(AT-LD)	-2.40	-3.37

Table 5. Unadjusted and adjusted mean gains in achievement for instructor groups when cumulative grade point average was used as a covariate

Instructor	Method	Mean gain	
		Unadjusted	Adjusted
A	Lecture-discussion	45.50	46.73
B	Lecture-discussion	47.61	47.16
C	Action-training	48.09	46.16
D	Action-training	39.11	40.39
E	Control	1.93	1.48

Table 6. Unadjusted and adjusted mean gains in achievement for experimental and control groups when pretest scores were used as a covariate

Group	Mean gain	
	Unadjusted	Adjusted
Action-training (AT)	44.05	44.07
Lecture-discussion (LD)	46.45	46.43
Control (C)	1.93	1.91
(AT-C)	42.12	42.16
(LD-C)	44.52	44.52
(AT-LD)	-2.40	-2.36

Table 7. Unadjusted and adjusted mean gains in achievement for instructor groups when pretest scores were used as a covariate

Instructor	Method	Mean gain	
		Unadjusted	Adjusted
A	Lecture-discussion	45.50	45.50
B	Lecture-discussion	47.61	47.58
C	Action-training	48.09	48.10
D	Action-training	39.11	39.14
E	Control	1.93	1.91

Table 8. Nested design analysis of variance for mean gain in achievement test for experimental and control groups

Source of variation	d.f.	Residuals		F-Ratio	Prob. > F
		Sum of squares	Mean square		
Method	2	22476.43	11238.21	26.68	0.03
Teacher (method)	2	842.43	421.21	3.016	0.05
Residual	89	12426.30	139.62		
Total	93	35745.15	384.36		

Table 9. Nested design analysis of variance for mean gain in achievement test for experimental groups

Source of variation	d.f.	Residuals		F-Ratio	Prob. > F
		Sum of squares	Mean square		
Method	1	115.20	115.20	0.27	0.65
Teacher (method)	2	842.43	421.22	2.64	0.07
Residual	76	12109.37	159.33		
Total	79	13067.00	165.40		

However, when a nested analysis of variance was computed without including the control group, Table 9, an F-ratio for method was 0.27 and 2.64 for teacher within method was reported. Since the F-ratio exceeded the .05 level of significance, hypothesis 1 was rejected.

### Hypothesis 2

Attitude toward a course in human resource management will be significantly more favorable for students instructed by use of action-training method than for students trained in a traditional course.

Attitudes toward courses were defined operationally in terms of 17 questions from the "Engineering Council Course-Instructor Evaluation" at Iowa State University. This instrument measures student attitude toward course content and attitude toward the instructor.

The posttest data used in testing hypothesis 2 are presented in Table 10. The calculated t value of 2.27 was opposite the direction hypothesized. Therefore, hypothesis 2 was rejected. However, t tests on the means for each section within the action-training and lecture-discussion groups indicated some statistically significant differences. These data are presented in Table 11.

Table 10. t test of posttest data on attitudes toward experimental courses by method

Variable	N	Mean	Standard deviation	T value	1-tail prob.
Action-training	40	4.06	1.027	-1.86	0.97
Lecture-discussion	40	4.13	1.027		

Table 11. t tests of posttest data on attitudes toward experimental courses by teacher within method

Variable	Group	N	Mean	Standard deviation	T value	2-tail prob.
Inst. A.	Lecture-discussion	22	4.28	0.53	3.84	0.00**
Inst. B		18	4.00	0.54		
Inst. C.	Action-training	22	3.83	0.49	-5.93	0.00**
Inst. D		18	4.30	0.59		

\*\*Significant at  $p < 0.01$ .

Hypothesis 3

Attitude toward personnel management, unions, and group activities will be significantly more favorable for students receiving action-training instruction than for those receiving traditional instruction in a human resource management course.

The mean gain in students' attitudes toward personnel management, unions, and group activities is presented in Table 12. The lecture-discussion group had an increase of 158 points in their attitude total, an average of 3.95 per student, while the action-training group had an increase of 397, an average gain of 9.93. The group receiving no treatment had an average decrease of 0.52 per student.

Table 12. Mean gain in students' attitudes toward personnel management, unions, and group activities by method and instructor

Method	Inst.	Personnel management	Unions	Group activity	Total
Lecture-discussion	A	3.18	5.82	3.64	12.64
	B	-1.83	-2.22	0.89	-3.17
Action-training	C	4.50	-1.09	5.00	8.41
	D	6.17	-2.28	7.28	11.17
Control	E	-5.36	-3.00	1.15	-7.21
Composite		1.82	-0.202	3.76	21.84



Table 13. Nested design analysis of variance for mean gain in attitude toward personnel management, unions, and group activity for experimental and control groups

Source of variation	d.f.	Residuals		F-ratio	Prob. > F
		Sum of squares	Mean square		
Method	2	2950.78	1475.39	1.16	0.46
Teacher (method)	2	2547.67	1273.83	1.52	0.22
Residual	89	74681.77	839.12		
Total	93	80180.22	862.15		

The nested design analysis of variance on the change in attitude totals for experimental and control groups is reported in Table 13. An F-ratio of 1.16 for method and 1.52 for teacher within method was obtained. This procedure is repeated in Table 14 to exclude the control group. Again the results with F-ratios of 0.27 for method and 1.53 for teacher within method did not approach significance. Therefore, hypothesis 3 was rejected.

Table 14. Nested design analysis of variance for mean gain in attitude toward personnel management, unions, and group activity for experimental groups

Source of variation	d.f.	Residuals		F-ratio	Prob. > F
		Sum of squares	Mean square		
Method	1	340.31	340.31	0.27	0.65
Teacher (method)	2	2547.67	1273.83	1.53	0.22
Residual	76	63237.41	832.07		
Total	79	66125.39	837.03		

The student responses to the measuring instrument used in hypothesis 3 were also used to determine group mean responses to individual items by the treatment and control groups. These are shown in Table 15 along with change in response means.

Table 15. Group means for individual students on individual items for attitude

Items	<u>Action-training</u>			<u>Lecture-discussion</u>			<u>Control</u>		
	1st	2nd	Change	1st	2nd	Change	1st	2nd	Change
	<u>Toward personnel management<sup>a</sup></u>								
1. The feeling I have toward personnel management is a good feeling.	3.55	4.30	+0.75	3.55	4.33	+0.78	2.64	2.64	0.0
2. Personnel management can be made understandable to almost every college student.	2.33	3.23	+0.90	2.45	3.50	+1.05	1.71	2.00	+0.29
3. I can't see where personnel management will ever help me.	4.55	4.13	-0.42	4.23	3.95	-0.28	3.50	3.36	-0.14
4. I don't think I can ever do well in personnel management.	4.15	3.70	-0.45	3.90	3.15	-0.75	3.50	2.71	-0.79
5. Only people with a special talent can do well in personnel management.	1.60	1.88	+0.28	1.18	0.68	-0.50	1.93	1.50	-0.43

<sup>a</sup>Items 1, 2, 6, 8, 9, 11, 14, 15, and 16 were scored as positive items; items 3, 4, 5, 7, 10, 12, and 13 were scored as negative items.

Table 15 (Cont.)

Items	<u>Action-training</u>			<u>Lecture-discussion</u>			<u>Control</u>		
	1st	2nd	Change	1st	2nd	Change	1st	2nd	Change
6. Personnel management is both fascinating and fun.	2.80	3.40	+0.60	2.90	3.30	+0.40	1.64	1.36	-0.28
7. I feel a sense of insecurity in personnel management.	1.33	2.58	+1.25	2.30	1.40	-0.90	0.86	0.85	-0.01
8. I feel at ease in personnel management.	1.98	2.63	+0.65	2.20	1.73	-0.47	0.93	0.50	-0.43
9. Personnel management is something I enjoy a great deal.	2.45	3.23	+0.80	2.53	2.90	+0.37	1.57	1.36	-0.21
10. I do not like personnel management.	3.25	3.90	+0.65	3.43	3.25	-0.18	2.14	2.07	-0.07
11. Personnel management is stimulating.	3.43	3.58	+0.15	3.05	3.75	+0.70	1.86	2.14	+0.28
12. It makes me nervous to even think about resolving a personnel management problem.	3.30	3.00	-0.30	3.15	2.70	-0.45	2.36	2.50	+0.14
13. I wish I were not required to study personnel management.	3.98	4.28	+0.30	3.68	4.00	+0.32	2.64	2.28	-0.36

Table 15 (Cont.)

Items	<u>Action-training</u>			<u>Lecture-discussion</u>			<u>Control</u>		
	1st	2nd	Change	1st	2nd	Change	1st	2nd	Change
14. I would like to study more about personnel management whether or not it is required for my program.	3.83	3.85	+0.02	3.30	3.95	+0.65	2.71	1.50	-1.21
15. Personnel management is very interesting to me.	3.57	3.83	+0.26	3.70	3.90	+0.20	2.29	2.07	-0.22
16. Almost everyone can learn personnel management if he is willing to study.	2.75	2.68	-0.07	2.25	2.25	0.0	2.36	2.07	-0.29
				<u>Toward labor unions<sup>b</sup></u>					
17. The feelings I have toward labor unions are good feelings.	0.15	1.05	+0.90	-0.22	1.15	+1.37	0.14	-0.14	+0.28
18. I can't see where knowledge of labor unions will ever help me.	4.30	4.03	-0.27	4.40	4.38	-0.02	3.57	3.43	-0.14

<sup>b</sup>Items 17, 23, 24, and 26 were scored as positive items; items 18, 19, 20, 21, 22, and 25 were scored as negative items.

Table 15 (Cont.)

Items	<u>Action-training</u>			<u>Lecture-discussion</u>			<u>Control</u>		
	1st	2nd	Change	1st	2nd	Change	1st	2nd	Change
19. Labor unions are basically dishonest.	2.90	2.93	+0.03	2.48	2.85	+0.37	3.00	2.43	-0.57
20. When I hear the words labor unions, I have a feeling of dislike.	1.35	1.05	-0.30	0.90	1.28	+0.38	1.36	0.71	-0.65
21. It makes me nervous even to think about having to work with labor unions.	2.43	1.88	-0.55	1.90	1.65	-0.25	2.14	2.14	0.0
22. I approach labor unions with a feeling of hesitation--hesitation from a fear of not being able to relate to them.	1.53	1.98	+0.45	1.88	2.08	-0.20	1.14	1.14	0.0
23. I would like to study more about labor unions.	3.60	2.95	-0.65	3.60	3.20	-0.40	2.57	1.86	-0.71
24. Labor unions are very interesting to me.	2.30	2.10	-0.20	2.20	2.50	+0.30	1.14	1.29	+0.15

Table 15 (Cont.)

Items	<u>Action-training</u>			<u>Lecture-discussion</u>			<u>Control</u>		
	1st	2nd	Change	1st	2nd	Change	1st	2nd	Change
25. I wish I were not required to study about labor unions.	3.55	3.13	-0.42	3.48	3.48	0.0	2.21	1.71	-0.50
26. The study of labor unions is fascinating and fun.	1.30	0.98	-0.32	1.60	1.80	+0.20	0.57	0.29	-0.28
	<u>Toward group activity<sup>c</sup></u>								
27. It scares me to interact in groups.	3.00	3.35	+0.35	2.23	2.30	+0.07	2.43	3.00	+0.57
28. The feeling I have toward group interaction is a good feeling.	2.70	3.85	+1.15	2.75	2.85	+0.10	2.50	2.93	+0.43
29. I don't think I can ever do well in large group situations.	2.87	3.40	+0.53	2.58	2.78	+0.20	3.07	2.71	-0.36
30. Group activity is fascinating and fun.	2.78	3.43	+0.65	2.90	3.10	+0.20	2.21	2.57	+0.36

<sup>c</sup>Items 28, 30, 32, 35, and 36 were scored as positive items; items 27, 29, 31, 33, and 34 were scored as negative items.

Table 15 (Cont.)

Items	<u>Action-training</u>			<u>Lecture discussion</u>			<u>Control</u>		
	1st	2nd	Change	1st	2nd	Change	1st	2nd	Change
31. I feel a sense of insecurity when attempting to interact in a group.	1.18	2.20	+1.02	1.15	1.60	+0.45	1.79	1.86	+0.07
32. Group activities make me feel secure.	1.10	1.58	+0.48	0.48	1.18	+0.70	1.29	1.57	+0.28
33. It makes me nervous even to think about having to work in large groups.	2.70	2.90	+0.20	1.85	2.20	+0.35	2.43	2.21	-0.22
34. I wish I were not required to work in group situations.	3.38	3.43	+0.05	2.80	3.03	+0.23	3.00	2.79	-0.21
35. I really like group activities.	2.05	3.23	+1.18	2.63	2.80	+0.17	2.21	3.00	+0.79
36. I would like to study more about group activities.	3.13	3.55	+0.42	3.25	3.30	+0.05	2.21	1.64	-0.57



Hypothesis 4

Consideration for others will be significantly higher for students receiving action-training method of instruction than for students trained in a traditional approach to a course in human resource management.

Consideration for others was defined operationally in terms of the mean change in students' responses on pre- and postadministration of the Leadership Opinion Questionnaire. This commercially prepared instrument is designed to measure the two dimensions of leadership behavior--structure and consideration.

The mean gain in students' consideration and structure scores is presented in Table 16. An analysis of variance including both experimental and control groups, Table 17, provides a method F-ratio of 0.56 and a teacher within method F-ratio of 2.11. In a repeated computation, excluding the control group, Table 18, F-ratios of 0.05 for method and 0.91 for teacher within method. As neither result approached the desired level of significance, hypothesis 4 was rejected.

Table 16. Mean gain in consideration and structure by method and instructor

Method	Instructor	Consideration	Structure
Lecture-discussion	A	-0.41	-2.32
Lecture-discussion	B	3.39	-3.67
Action-training	C	1.23	-3.72
Action-training	D	1.44	-1.22
Control	E	-1.29	2.07
Composite		0.92	-2.04

Table 17. Nested design analysis of variance for mean gain in consideration for experimental and control groups

Source of variation	d.f.	Residuals		F-ratio	Prob. > F
		Sum of squares	Mean square		
Method	2	80.45	40.22	0.56	0.64
Teacher (method)	2	143.27	71.64	2.11	0.12
Residual	89	3022.76	33.96		
Total	93	3246.48	34.91		

Table 18. Nested design analysis of variance for mean gain  
in consideration for experimental groups

Source of variation	d.f.	Residuals		F-ratio	Prob.> F
		Sum of squares	Mean square		
Method	1	2.11	2.11	0.05	0.83
Teacher (method)	2	80.13	40.06	0.91	0.59
Residual	76	3344.24	44.00		
Total	79	3426.48	43.37		

## SUMMARY, DISCUSSION, AND RECOMMENDATIONS

## Summary

The two general purposes of this study were:

1. Developmental--to develop action-training materials in which appropriate situations, conditions, and activities could be provided to facilitate learning content material for a human resource management course. This material was also intended to provide intrinsic motivation for students and for course instructors.
2. Evaluation--to determine the effect of action-training with regard to improving students' competencies in human resource management, coupled with improving attitude toward the presentation of course, attitude toward subject material, and consideration of others.

The development aspect

The instructors presenting the course in the action-training format collaborated in selecting and developing materials for class activity to correspond as closely as possible with assigned readings for each class period. A total of 20 lessons were prepared. Two periods were given to testing and five periods were to be developed by student participation within each of the action-training sections.

An achievement test was developed from two sources. A

total of 78 multiple choice questions were obtained from the Instructor's Handbook which accompanied the course text. This instrument developed an estimated reliability coefficient of 0.81. Seven essay questions were selected from a test-file maintained by the lead-professor of human resource management courses. The combined test was given to all subjects as a pretest and to the control group as both a pre- and posttest. The test was divided into two parts for the treatment groups and given as a midterm and as a final examination.

An attitudinal questionnaire was developed to determine the students' attitudes toward personnel management, labor unions, and group activities. This questionnaire was based on an attitudinal scale used by Aiken and Dreger as discussed by Wisniewski (80) in his work. A list of items and the type of format used were determined after consultation with specialists who had previous experience with attitudinal questionnaires. Eighteen positive items and eighteen negative items were employed. The scale used was essentially an 11 point Likert scale.

#### The evaluation aspect

The study was conducted at Iowa State University during the fall quarter of 1973. Four sections of Human Resource Management I were used as the vehicle for the conduct of the study. Although randomization of student assignments to course sections was not possible due to administrative considerations,

instructor assignments by section were not made known to the students until the first class period. The researcher taught two courses, one in action-training format, the other in conventional lecture-discussion format. The instructors engaged in teaching the remaining two sections each used a different format so that a total of 40 students received instruction in the conventional manner and 43 received the action-training form of instruction. All students receiving experimental treatment completed the course. However, data omissions on posttests of three graduating seniors reduced the sample size of the action-training group to 40.

Twenty students enrolled in a separate course, Industrial Operations, provided the control group. This group had essentially no background courses in areas appropriate to human resource management. Although 19 students completed this course, only 14 completed all required data to be used in the analysis.

The experimental treatment groups received a common syllabus, were assigned identical readings and covered identical topics. The effectiveness of the action-training instruction was evaluated by comparing the performance of students in each of the experimental groups and the control group on several evaluation devices.

All members of the experimental and control groups were administered a pre- and posttest to measure achievement, a Leadership Opinion Questionnaire to measure consideration for

others and an attitudinal questionnaire designed to measure students' attitudes toward personnel management, labor unions, and group activities. The experimental groups were also administered a midterm examination and a course-instructor evaluation questionnaire upon completion of the course.

In order to compare the performance of the three groups on the appropriate evaluation instruments, the following hypotheses were formulated and tested.

1. The level of achievement will be significantly higher for students receiving action-training method of instruction than for students trained in the traditional approach to a course in human resource management.
2. Attitude toward a course in human resource management will be significantly more favorable for students instructed by use of action-training method than for students trained in a traditional approach.
3. Attitude toward personnel management, unions, and group activities will be significantly more favorable for students receiving action-training instruction than those receiving traditional instruction in a human resource management course.
4. Consideration for others will be significantly higher for students receiving action-training instruction than for students trained in a traditional approach to a course in human resource management.

In order to investigate the possibility that the composition of the experimental groups might be such that one group was composed of higher caliber or better prepared students and as such affect the outcome of the study, two independent variables, cumulative grade point average and pretest achievement test scores, were evaluated. In applying the analysis of covariance procedure to the resulting scores for each administration of each evaluation instrument, no significant effect of either independent variable was observed.

A nested design analysis of variance was used to test hypotheses 1, 3, and 4. In each evaluation, the hypotheses were rejected at the .05 level of significance. A t test was used to test hypothesis 2 with results causing a rejection of the hypothesis. Additional t tests on sections within treatment groups provided statistically significant results ( $p < 0.01$ ), indicating the instructor had more effect on this evaluation outcome than did method of instruction.

#### Discussion

If the assumption was made that the results of the tests and questionnaires that were used in this study accurately reflected the achievement and attitudes of the students in the HRM-I classes, then industrial engineering faculty can be well satisfied with their accomplishments in the instruction of these students--no matter which method of training was utilized. While the investigator would have preferred



statistically significant results in favor of the action-training method of instruction over the lecture-discussion method on all measurement instruments, the results obtained are not disappointing for the following reasons:

1. While the mean gain in each area measured was not statistically significant, neither was the mean loss. This is particularly important because:
  - a. Development of action-training materials directly relating to specific points in each topical area is a long term process of trial and error.
  - b. Development of appropriate teaching skills to facilitate case studies, role playing, incident process, and other participative classroom activities is essential if both student and faculty are to realize the full value of the action-training technique.
  - c. Allowed class length of 50 minutes or 80 minutes is often too limited to obtain full value of many experiential exercises.
2. The true measurement of the success of any instruction is in the willingness and ability of the student to apply knowledge; often the awareness of personal application of knowledge is delayed for many months or years.
3. The results of a course questionnaire, Table 19, administered to the experimental groups at the end

of the course revealed that 30 per cent of the students receiving traditional instruction preferred that method to various combinations of action-training procedures. Only 19 per cent of the students preferred traditional methods of instruction after receiving action-training. Only two students of the 79 respondents discouraged additional group interaction in the classroom environment.

The data reported in the course questionnaire, coupled with the comments of both students and faculty prompt the recommendations listed later in this chapter. A representative sample of comments by students who had received action-training are listed below:

The only thing I would want to change or improve upon is that the text assignments are not involved enough with class activity.

I would like to see a continuation of role playing situations, but involve different people.

Continue small group exercise format with more time allotted for discussing feelings and reactions of group members.

More group role playing.

I feel you have made this class interesting; but I think we should have more discussion and less acting.

Give us a better idea of what's up for the next period. For instance, describe roles so we can assume them more effectively when it comes time to participate.

Table 19. Tabulated responses to course evaluation by method, by instructor

Question	Lecture-discussion						Action-training						Grand total	
	A		B		Total		C		D		Total		N	%
	N	%	N	%	N	%	N	%	N	%	N	%		
7. Should more group interaction be														
encouraged	16	.94	22	100.0	38	.97	22	100.0	17	.94	39	.98	77	.97
discouraged	1	.06	0	0	1	.03	0	0	1	.06	1	.02	2	.03
8. The method of teaching I would prefer would be														
lecture	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lecture-discussion	5	.29	7	.32	12	.30	2	.09	1	.06	3	.07	15	.19
role play lecture	1	.06	0	0	1	.03	1	.05	0	0	1	.03	2	.03
case study lecture	3	.18	6	.27	9	.23	1	.05	2	.11	3	.07	12	.15
case study role play	1	.06	2	.09	3	.08	6	.27	4	.22	10	.25	13	.16
case study role play lecture	7	.41	7	.32	14	.36	12	.54	11	.61	23	.58	37	.47

## Recommendations

Based on information obtained from this study, the investigator strongly recommends the use of the action-training method of instruction, coupled with lecture-discussion, for all courses related to human resource management at Iowa State University. To maximize the effectiveness of this technique for students and faculty alike, the following suggestions are offered:

1. Extensive developmental activity should be undertaken to insure relevant action-training materials are appropriately blended with lecture-discussion.
2. Opportunities for faculty to develop appropriate teaching skills to facilitate experiential exercises should be provided.
3. Human resource management courses should be presented in minimum blocks of two hours per meeting. To be most effective this would require adding one hour of class time to the three hours currently scheduled to provide two meetings per week--each two hours in duration.

The above recommendations are costly in terms of the student's time and the time and effort of the faculty. However, the desired pay-off position as stated below in The Des Moines Register by Mr. Robert Kennedy (35) would seem most worthwhile.

If a [student] is encouraged to have ideas and speak up for them, with no fear of ridicule, in an atmosphere of

mutual respect for others and their ideas, not only are wits sharpened but his confidence grows. So with practice, does a [student's] ability to communicate . . . . The destiny of the world is shaped by those persons who get their ideas across--for better or for worse.

#### Recommendations for Further Study

If this study were to be repeated, it is recommended that the following be incorporated:

1. Alter the design so that each instructor teaches in each experimental condition. This would permit more accurate determination of the reason for change in the student's cognitive and affective responses-- teacher or method.
2. Provide for a comprehensive follow-up of the participating students to determine the effects of various teaching methods over time.

Several other interesting and productive areas for investigation are summarized below:

1. Repeat the study, as altered above, involving several different subject areas. This could be accomplished at all educational levels as action-training has application in education from preschool to postschool.
2. Duplicate the experiment using more than two treatment groups. An example would be three groups, using action-training, lecture-discussion and case study.
3. Duplicate the experiment using instructors interchangeably. Instructors would teach selected areas

such as leadership or motivation to each class using as appropriate the preplanned teaching method.

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## ACKNOWLEDGMENTS

A significant portion of this study was developed to encourage active participation of the student in a classroom environment. It is therefore most appropriate to recognize those who have contributed so much to my active participation both in the classroom and in this research endeavor.

Without the encouragement, patience, and understanding of my wife, Liz, and our children, Dawn, Greg, Lori, Steve, and Cliff, this study would never have begun. Without the philosophy of management, inspired by a long-time friend and supervisor Mr. Phil Kearny of Rockwell International, this study would have had no substance. Without the efforts of Dr. Clifford Smith who developed the human resource management series of courses at Iowa State University, there would have been no opportunity for my employment nor a forum for this research.

I would like to express my sincere thanks to the members of my committee, Dr. Roger Lawrence, Dr. Ray Bryan, Dr. Harold Davey, Dr. Clifford Smith, and Dr. Richard Manatt, for their encouragement, time, interest, and advice.

Thanks goes to the instructors, Dr. Roger Berger, Don Grant, and Haluk Bekiroglu, for their suggestions and unselfish donation of their time toward this project. The efforts of students in all classes of Industrial Engineering 424 and Industrial Engineering 351A are also acknowledged and

appreciated.

Sincere appreciation is also expressed to Mrs. Shirley Hulse for many hours of work while typing this dissertation, and to Dr. Geraldine Montag and Dr. Roger Berger for their special assistance and support.

APPENDIX A. COURSE SYLLABUS

Syllabus

I.E. 424, Human Resource Management I

Fall 1974

<u>Period</u>		<u>Read before class</u>
1	Personal Inventory	
2	Introduction	
3	History of Industrial Rel.	B-1, B-2
4	Systems Theory of Organizations	KK-2, *ES-6, *ES-2, Systems Concepts
5	Role Theory	KK-7 *(M-1)
6	Learning Theory	BR-17, *BV-2
7	Formal Organization	B-6, BR-2, *BR-7 *BR-24
8	Human Needs & Motivation	B-15
9	Job Enrichment	BR-22 *(M-2)
10	Communications	B-20, BR-28, 31
11	Theory X & Y; Organization Development	BR-20, 21 *(M-3)
12	Review for Midterm	
13	MIDTERM	
14	Group Processes	B-16, *ES-5, *(M-4)
15	Functions of the Informal Organization	B-16
16	Leadership Styles	B-17, BR 24, 25
17	Supervision	B-18
18	Participative Management	B-19, pp. 718-721
19	Managerial Grid	BR-23
20	Likert	L-8, *BR-26 *(M-5)
21	Labor Unions	LG-a, B-4
22	Labor Law & NLRB	LG-b, B-5, NLRB
23	Collective Bargaining Issues	BR-42, *BR-41
24	Discipline	B-21, BR-32
25	Grievances/Arbitration/ Mediation	B-22, *BR-33
26	Personal Inventory	
27	Review for Final	

\*Optional Readings

Texts: Personnel: The Management of People at Work (B)  
 Managing People at Work: Readings in Personnel (BR)  
 Layman's Guide to NLRA (LG)



<u>Reference</u>	<u>Author</u>	<u>Title of Book</u>
KK	Katz & Kahn	The Social Psychology of Organizations
*BV	Bass & Vaughn	Training in Industry: The Management of Learning
*ES	Schein	Organizational Psychology
L	Likert	New Patterns of Management
NLRB		
Systems Concepts		
** (M-1)	Gellerman Film (NS6361)	Rm 112 Pearson Hall
(M-2)	Herzberg Film (NS6363)	"
(M-3)	McClelland Film (NS6362)	"
(M-4)	Argyris Film (NS6364)	"
(M-5)	Likert Film (NS6365)	"

APPENDIX B. COMMON LESSON PLAN FOR DAY #1

Human Resource Management  
(Plan for day #1)

Industrial Engineering is conducting research this quarter that requires a little extra effort from members of I.E. 424 (A,B,C,D), Human Resource Management I.

Today you are requested to complete the following:

1. Personnel Management Attitudinal Questionnaire

Please note the terms personnel management and human resource management are used interchangeably throughout the course.

2. Personnel Management Pretest

Essay questions are to be answered on paper provided.

3. Leadership Opinion Questionnaire

The results of each questionnaire and the pretest will be made available to you at the end of this quarter. These results will have no bearing on your course grade.

During this quarter you will be asked each week to report the out-of-class time you have spent studying for this course. These reports are being used by an educational researcher to determine if the amount of time spent in studying for this course is related to the scores you attain on the midterm and final examinations. Again, these reports will in no way affect your grade.

When all work is completed, you are free to leave. Bring completed work to the desk and pick up a course syllabus before you go.

APPENDIX C. EXAMPLE OF ACTION-  
TRAINING EXERCISE

Medial Feedback:  
A "Mid-Course Correction" Exercise

Goals

1. To generate evaluative data about the effects of a laboratory education design while there is still time to modify it.
2. To study group process phenomena both as a participant and as an observer.

Group size

Ten to twenty-four.

Time required

Approximately one hour and a half.

Materials utilized

1. 5" x 8" card and pencil for each participant.
2. Process Observer Recording Form for each participant.

Physical setting

Room large enough to form subgroups that can be instructed simultaneously without disturbing each other.

Process

1. Two subgroups of approximately equal size are formed randomly and are designated Group A and Group B.
2. Members of Group A are given 5" x 8" cards and pencils and instructed to go to one end of the room and work independently while the members of Group B are receiving instructions. Group A participants are to write on one side of the card at least two positive statements about the total laboratory experience so far and on the other side at least two negative statements about the experience so far.
3. Members of Group B are given pencils and copies of the Process Observer Recording Form. Each member is assigned a particular section of the form to use to record observations, in order for most of the relevant aspects of

the process to be observed. If there are more members than five, two or more may be assigned to observe the same dimensions. This briefing should take about ten minutes.

4. Group A is assembled in a circle in the center of the room, with members of Group B spread around it as observers. (If there is any doubt about member names, members of Group A are asked to give their first names in the order in which they are seated. These may be posted.) Members of Group A are instructed to discuss their reactions to the training experience up to this point. Each individual has three responsibilities: to make at least one of the statements from each side of his card, to make certain that he is understood, and to hear what everyone else says. The group meets for twenty minutes.
5. The facilitator reminds Group B of criteria for giving feedback effectively (be specific, be descriptive rather than evaluative, focus on modifiable behavior, check to see whether it is heard, check it out with others) and asks that observers give brief reports (no speeches and no theories) while Group A listens. Then members of Group A react briefly to process observations. This feedback and reaction phase should last about fifteen minutes.
6. The process is repeated, with Group B writing their reactions and Group A becoming process observers.
7. After the processing of the second phase the facilitator solicits observations about process differences in the two phases. Then design modifications for the remainder of the training experience can be explored with the group. The facilitator may model nondefensive receptivity to feedback by summarizing the content of the two group sessions and by telling what he will do with the data.

Process Observer Recording Form

Record verbal and nonverbal behaviors engaged in by specific members of the group in the section on this form assigned to you. Guide your observations by the statements and questions included in your section. Try to focus on the processes that emerge in the meeting rather than on the content of what is said. Imagine that you are a process consultant called in by this group to assist it in improving its internal functioning.

1. Structure: how the group organizes to accomplish its task. What ground rules emerge? What leadership behaviors are displayed? How are decisions made? How is information treated?
2. Climate: the psychological atmosphere of the meeting. How are feelings (as opposed to points of view) dealt with? What nonverbal behavior indicates changes in climate? How do members' voices denote feeling tone?
3. Facilitation: how group members influence the development of the group. Does the group process itself? What group-building behaviors (bringing in silent members, harmonizing conflict, reinforcing participation, etc.) are engaged in?
4. Dysfunctions: behaviors that hinder the accomplishment of the group's task. What anti-group behaviors (blocking, recognition-seeking, dominating, withdrawing, etc.) are seen? What communication patterns develop that are dysfunctional to the group?
5. Convergence: how the group moves from independence to collective judgement. What behaviors promote agreement? What consensus-seeking behaviors are observed? What "false" consensus behaviors (such as "me too," "I'll go along with that,") are displayed?

APPENDIX D. PRETEST



**INTRODUCTION:**

Tests are constructed for a number of reasons. The reason for the test you are about to take is to gather data for a research project.

**GRADING:**

As far as you are concerned, the "results" of this test will have absolutely no bearing on your grade in this class.

**DIRECTIONS:** (Multiple choice questions)

1. Print your name and today's date on the appropriate lines of the IBM answer sheet.
2. Place the number of this test in the upper right hand corner of the answer sheet.
3. Copy your Social Security number in the column of boxes headed by the red arrow. Code this number in the blanks to the immediate right of the number.
4. Follow the directions for responding to each item as suggested in the "directions" block of the IBM answer sheet.

**DIRECTIONS:** (Essay questions)

1. Print your name and your instructor's name at the top of each page of questions.
2. Answer directly on the page containing the questions. Both sides of the paper may be used.

Human Resource Management

1. Personnel management is
  - a) a social science.
  - b) an exact science.
  - c) an applied, professional field of work as well as an academic discipline.
  - d) one of the behavioral sciences.
  
2. Since 1850 the average work week has decreased about
  - a) 30 hours.
  - b) 10 hours.
  - c) 50 per cent.
  - d) 40 hours.
  
3. The labor force consists of
  - a) all hourly paid workers over 18 years of age.
  - b) all employed plus all unemployed in any calendar year.
  - c) the nonagricultural population, 16 years of age or over, who are employed plus all those who are unemployed but are actively seeking work.
  - d) the noninstitutional population, 16 years of age or over, who are employed plus all those who are unemployed but are actually seeking work.
  
4. Changes in the labor force over the years since say 1900, have resulted in
  - a) more women and unskilled workers in the labor force.
  - b) fewer professional and skilled workers in the labor force.
  - c) more self-employed in the labor force.
  - d) fewer unskilled and more white-collar workers in the labor force.
  
5. Scientific management
  - a) contributed to the professionalization of management and the decline of management by hunch and intuition.
  - b) involved the entry of physical and social scientists into the world of management.
  - c) was primarily a technique of time and motion study used to establish wage incentive rates.
  - d) refers to the application of modern statistical and mathematical techniques to the field of management.
  
6. Industrial psychology has been concerned mainly with
  - a) selection testing, employee appraisal, fatigue, and human engineering.
  - b) personnel counseling and nondirective interviewing.
  - c) psychotherapy on the job.
  - d) working conditions, morale, work standards, and the social climate in the work organization.

7. A basic belief of the traditional philosophy of management is that
  - a) the best control is self-control.
  - b) man is motivated mainly by egoistic drives.
  - c) the authority of the employer is supreme.
  - d) economic, social, and egoistic drives are all important and must be tapped.
  
8. Advocates of the modern philosophy of management tend to maintain that
  - a) free competition results in the greatest good for the greatest number of people.
  - b) people possess capacity for exercising initiative, accepting responsibility, and making worthwhile contributions.
  - c) the average worker has an inherent dislike of work, avoids responsibility, and lacks ambition.
  - d) none of the above.
  
9. An important factor which makes acceptance of the modern philosophy of management more likely for the future is
  - a) the rising education level of people in work organizations.
  - b) the fact that the traditional philosophy has been largely unsuccessful.
  - c) union pressures for more industrial democracy.
  - d) a fundamental change in attitude on the part of top management.
  
10. What is a policy?
  - a) It is essentially the same as a creed or belief.
  - b) It is a detailed plan for carrying out a program of action.
  - c) It is a commonly established practice.
  - d) It is a statement of intention committing management to a general course of action.
  
11. Why should a company adopt definite personnel policies?
  - a) Because such action can often forestall a union organizing drive.
  - b) Because this was a basic tenet of "management by objectives."
  - c) Because they help assure consistent, fair treatment of all personnel.
  - d) Because such action increases productivity and cuts labor costs.

12. Management by objectives
  - a) has declined in popularity and is now considered an obsolete concept.
  - b) is part and parcel of the traditional philosophy of management.
  - c) was first formulated by Douglas McGregor.
  - d) is really management by integration and self-control.
13. What are the various basic ways of grouping work activities?
  - a) functional and nonfunctional.
  - b) location, customer, and project.
  - c) location, product, customer, function, and number of persons.
  - d) line and staff.
14. What is authority?
  - a) the power to command performance.
  - b) the power to achieve sought-after results.
  - c) the responsibility assigned by a superior in the organization.
  - d) the legitimate right to direct or influence the performance of others.
15. An important reason why many executives are reluctant to delegate to their subordinates is that
  - a) the executives, themselves, lack sufficient authority to do so.
  - b) job responsibilities have not been put into writing.
  - c) the executives are insecure and are afraid to build up their subordinates.
  - d) the policies of most large organizations discourage effective delegation.
16. Decentralization in organization refers to
  - a) the establishment of many branches of the organization over a wide geographic area.
  - b) placing authority and decision-making power as close to the level at which the work is done as possible.
  - c) the breaking up of large holding companies into a number of smaller, autonomous companies.
  - d) a wide span of control.
17. The functions of staff are to
  - a) provide advice, service, and control.
  - b) direct the coordination of all auxiliary and service functions.
  - c) provide functional coordination.
  - d) see that the line manages the business efficiently.

18. The number of subordinates that one man can effectively supervise is
  - a) limited to five or six.
  - b) dependent upon the complexity of the work, abilities of superior and subordinate, and closeness of control exercised.
  - c) can be determined precisely by mathematical analysis.
  - d) none of the above.
  
19. The concept of a rank order priority of human needs has been developed by
  - a) Sigmund Freud.
  - b) J. L. Moreno.
  - c) A. H. Maslow.
  - d) Karl Menninger.
  
20. For which type of occupational group is competition likely to be least successful as a motivator?
  - a) blue collar workers.
  - b) salesmen.
  - c) professional employees.
  - d) technicians.
  
21. Of what value is job security to industrial employees?
  - a) It ranks low on their system of priorities.
  - b) It ranks high on their system of priorities.
  - c) A threat to job security is an excellent means of encouraging employees to work harder.
  - d) none of the above.
  
22. What is vertical job enlargement?
  - a) adding some planning and control functions to a routine job.
  - b) increasing the quantity of work required per unit of time.
  - c) adding additional but similar tasks to a short cycle repetitive job.
  - d) increasing the scope of authority of lower level administrative positions.
  
23. Which of the following are hygienic factors according to Frederick Herzberg's theory of work motivation?
  - a) responsibility.
  - b) work itself.
  - c) recognition.
  - d) salary.

24. The principal value of money as a motivator
- is in its capacity for inducing superior performance among most workers.
  - lies in what it symbolizes to the recipient.
  - is its ability to provide material rewards to people who exhibit good performance.
  - is very little because pay cannot motivate people to exhibit good performance.
25. Which type of communication tends to be least adequate in organizations?
- upward.
  - downward.
  - horizontal.
  - interpersonal.
26. What is a major cause for the creation and spread of rumors?
- a situation in which people are unclear about their positions and feel they have little control over their destinies.
  - the existence of the grapevine which is augmented by the informal organization.
  - the presence in the group of malcontented individuals who derive satisfaction from generating and spreading rumors.
  - the existence of an informal group which seeks to thwart management's goals.
27. An important factor causing selective perception is
- the impact of the group upon the standards of the individual.
  - feedback.
  - the interaction of the various organs of sense.
  - the tending for one's perception to be governed by his needs and wants.
28. Given free choice people will tend to communicate most often with
- persons of higher status.
  - their peers and with those of higher status.
  - those of lower status.
  - people at all levels about an equal amount.
29. For the transmission of factual, noncontroversial information from management to the work force which two methods has research shown rank highest in terms of accuracy of understanding
- oral plus written and oral only.
  - written only and bulletin board.
  - oral only and grapevine.
  - oral only and written only.

30. In the Leavitt and Mueller experiments into interpersonal communication when students were solving problems, it was found that
- a) accuracy was best in a "yes-no" situation where students could say only yes or no to questions from the instructor.
  - b) accuracy was best and total time for completion was lowest for full feedback between students and instructor.
  - c) accuracy was best and total time for completion was highest for full feedback between students and instructor.
  - d) accuracy was best and total time for completion was lowest for the "yes-no" situation where students could say only yes or no to questions from the instructor.

31. Why did the girls in the Relay Assembly Test Room increase their output substantially throughout the entire two-year period of the experiment?
- a) They acquired greater skill and experience as the study progressed.
  - b) They increased their output under the impetus of a new wage incentive plan.
  - c) The psychological and sociological climate of the situation had changed significantly.
  - d) The changed physical conditions of work such as rest periods and shortened work days caused the increase in output.
32. What kind of behavior did the men in the Bank Wiring Observation Room exhibit?
- a) social cliques and restriction of output.
  - b) interpersonal competition.
  - c) a continual increasing level of output during the period of study.
  - d) social disorganization and disharmony.
33. Which of the following is generally not a property of a group?
- a) motivation.
  - b) cohesion.
  - c) interaction.
  - d) norm.
34. The term used to designate the forces and actions within a group is
- a) culture.
  - b) cohesion.
  - c) group dynamics.
  - d) informal organization.
35. Groups generally enforce conformity among their members in order to
- a) maintain the security of the group.
  - b) reduce the members to the lowest common denominator.
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37. What determines whether some persons will attain positions of leadership?
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  - Basic skills and characteristics such as a commanding voice, good health, dominance, and leadership ability.
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  - customs and laws of the state.
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39. Which of the following is not generally considered a base or source of power?
- reward.
  - coercion.
  - participation.
  - expertise.
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- greater esprit de corps.
  - higher output.
  - less aggression and a greater feeling of cooperation.
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- leader-member relationship.
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57. The greatest concentration of union membership in the United States is in the following:
- manufacturing, wholesale and retail trade, and fishing and dairy products.
  - transportation, mining, and white collar and professional employment.
  - manufacturing, construction, transportation, mining, and communication.
  - textiles, petroleum and natural gas, and construction.
58. Craft unions typically seek to advance their position by
- bringing in as many new members to the union as possible.
  - restricting the supply of labor for their craft.
  - obtaining strong seniority clauses in the contract to control promotions, transfers, and layoffs.
  - mass picketing.

59. According to research findings of the National Planning Association it has been found that harmonious union-management relations are generally enhanced by
- a) government intervention into the collective-bargaining process.
  - b) a positive acceptance by management of the union as an institution and of collective bargaining as a desirable way of handling employment relationships.
  - c) union officials who have worked closely with management for many years and have had a chance to acquire a management viewpoint.
  - d) a union which has a democratic two-party system.
60. In which sector of the economy has union membership shown the most rapid rate of growth since the early 1960's?
- a) professional employees.
  - b) service workers.
  - c) construction.
  - d) government.
61. Encouragement of collective bargaining as a means of settling employee relations problems was expressed as public policy in the
- a) Landrum-Griffin Act.
  - b) Norris-LaGuardia Act.
  - c) Taft-Hartley Act.
  - d) National Labor Relations Act.
62. Under provisions of the Taft-Hartley Act it is illegal for a union to
- a) call a strike without a prior secret ballot of its membership.
  - b) engage in a primary economic boycott.
  - c) strike to obtain a union shop.
  - d) engage in a jurisdictional strike.
63. What rights (if any) does management have to talk to employees, either individually or in groups, regarding union-management affairs and labor relations?
- a) It is given great latitude to speak to employees as long as it grants the union equal opportunity to reply.
  - b) It has great freedom to express its views as long as there is no threat of reprisal or force or promise of benefit.
  - c) It can say very little because the National Labor Relations Board has consistently held that employer statements on union relations constitute an unfair labor practice.
  - d) It retains all the rights it traditionally had under common law; statute law is silent on the matter.

64. The procedure in the Taft-Hartley Act for handling national emergency disputes provides for
- a) an 80 day injunction and cooling-off period.
  - b) compulsory arbitration.
  - c) government seizure of the struck company and enforced return to work by the employees.
  - d) none of the above.
65. The principal objective of the Landrum-Griffin Act has been to
- a) reduce the economic power of unions in relation to employers.
  - b) correct malpractices in the handling of pension and welfare funds.
  - c) insure democratic procedures within unions and eliminate dishonesty on the part of union officials in handling union affairs.
  - d) strengthen the Taft-Hartley Act's prohibitions against secondary boycotts.
66. The establishment of joint union-management bargaining committees to resolve common problems during the life of an agreement, rather than at its termination, first achieved great prominence in which industry?
- a) automobile.
  - b) textiles.
  - c) steel.
  - d) aero-space.
67. A basic weakness of negative discipline is that
- a) it only achieves the minimum performance necessary to avoid punishment.
  - b) it is much more difficult to initiate and administer than positive discipline.
  - c) it requires extensive training of supervisors in order to succeed.
  - d) punishment never serves to change people's behavior.
68. An example of positive discipline is
- a) military discipline.
  - b) typical prison discipline.
  - c) a college honor system.
  - d) none of the above.

69. What provisions do union-management labor agreements typically contain pertaining to discipline?
- Most agreements spell out the rules of conduct, appropriate penalties, and procedures for administering the discipline.
  - Most agreements contain the rules and penalties but say very little about administration of the discipline.
  - Most agreements merely state that management has the right to discipline, suspend, or discharge for just cause and that grievances can be submitted over alleged injustices.
  - Most agreements provide for joint-union-management committees to decide discipline cases.
70. In processing and adjudicating disciplinary cases upon whom is the burden of proof generally placed?
- employer.
  - employee.
  - a preponderance of evidence must be presented by the employer.
  - a preponderance of evidence must be presented by the employee.
71. What form do penalties in industrial discipline usually take?
- monetary fines.
  - demotions.
  - probationary sentences.
  - progressive penalties ranging from an oral warning to a discharge.
72. Essential features of "due process" in industrial discipline are
- trial by jury and provision of legal counsel to the accused.
  - arbitration before a tripartite board and provision for legal counsel.
  - the right of habeas corpus and presumption of innocence until proven otherwise.
  - communication of rules, burden of proof, and right of appeal.
73. The definition of a grievance includes
- only those which allege a violation of the labor-management agreement.
  - any dissatisfaction in connection with one's employment situation that is brought to the attention of management.
  - any discontent or sense of injustice, expressed or not, felt by an employee in connection with his job.
  - only those complaints which are acted upon by the union.

74. What portion of labor-management agreements contain provisions for definite grievance procedures?
- a) about 15 per cent.
  - b) about 65 per cent.
  - c) over 90 per cent.
  - d) less than 40 per cent.
75. The final step of most grievance procedures under collective bargaining agreements is
- a) top management.
  - b) a board of review.
  - c) arbitration.
  - d) a board of mediation.
76. Most grievance procedures under collective agreements provide for initial presentation of the grievance to
- a) the union steward.
  - b) the industrial relations office.
  - c) a joint union-management grievance committee.
  - d) the first-line supervisor.
77. Most arbitrators in the United States are employed
- a) on an ad hoc basis by the parties involved.
  - b) on a permanent umpire basis by the parties involved.
  - c) by the various states to help settle labor disputes.
  - d) by the federal government to help settle labor disputes.
78. A basic problem with the open door policy is that
- a) it encourages employees to magnify their dissatisfactions by bringing them to top management.
  - b) the social and organizational gulf between the worker and top management minimizes the likelihood of the employee taking his complaint to the chief executive.
  - c) it is more costly to operate than other grievance handling systems.
  - d) unions don't like such plans.



1. List six of the eight characteristics of an open organization as described by Katz and Kahn.

2. Define the following:

Role expectation -

Role set -

Role behavior -

Sent role -

Received role -

Role conflict -

3. Discuss learning theory and the principles of learning.

4. Explain Herzberg's Motivation Hygiene Theory.

5. Discuss Theory X and Theory Y.

6. Draw and explain the "Managerial Grid."

7. Define the principle of Supportive Relationships (Likert).

APPENDIX E. MIDTERM EXAMINATION

## Directions for multiple choice questions:

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Human Resource Management

1. Personnel management is
  - a) a social science.
  - b) an exact science.
  - c) an applied, professional field of work as well as an academic discipline.
  - d) one of the behavioral sciences.
2. Since 1850 the average work week has decreased about
  - a) 30 hours.
  - b) 10 hours.
  - c) 50 per cent.
  - d) 40 hours.
3. The labor force consists of
  - a) all hourly paid workers over 18 years of age.
  - b) all employed plus all unemployed in any calendar year.
  - c) the nonagricultural population, 16 years of age or over, who are employed plus all those who are unemployed but are actively seeking work.
  - d) the noninstitutional population, 16 years of age or over, who are employed plus all those who are unemployed but are actually seeking work.
4. Changes in the labor force over the years since say 1900, have resulted in
  - a) more women and unskilled workers in the labor force.
  - b) fewer professional and skilled workers in the labor force.
  - c) more self-employed in the labor force.
  - d) fewer unskilled and more white-collar workers in the labor force.
5. Scientific management
  - a) contributed to the professionalization of management and the decline of management by hunch and intuition.
  - b) involved the entry of physical and social scientists into the world of management.
  - c) was primarily a technique of time and motion study used to establish wage incentive rates.
  - d) refers to the application of modern statistical and mathematical techniques to the field of management.
6. Industrial psychology has been concerned mainly with
  - a) selection testing, employee appraisal, fatigue, and human engineering.
  - b) personnel counseling and nondirective interviewing.
  - c) psychotherapy on the job.
  - d) working conditions, morale, work standards, and the social climate in the work organization.

7. A basic belief of the traditional philosophy of management is that
  - a) the best control is self-control.
  - b) man is motivated mainly by egoistic drives.
  - c) the authority of the employer is supreme.
  - d) economic, social, and egoistic drives are all important and must be tapped.
  
8. Advocates of the modern philosophy of management tend to maintain that
  - a) free competition results in the greatest good for the greatest number of people.
  - b) people possess capacity for exercising initiative, accepting responsibility, and making worthwhile contributions.
  - c) the average worker has an inherent dislike of work, avoids responsibility, and lacks ambition.
  - d) none of the above.
  
9. An important factor which makes acceptance of the modern philosophy of management more likely for the future is
  - a) the rising education level of people in work organizations.
  - b) the fact that the traditional philosophy has been largely unsuccessful.
  - c) union pressures for more industrial democracy.
  - d) a fundamental change in attitude on the part of top management.
  
10. What is a policy?
  - a) It is essentially the same as a creed or belief.
  - b) It is a detailed plan for carrying out a program of action.
  - c) It is a commonly established practice.
  - d) It is a statement of intention committing management to a general course of action.
  
11. Why should a company adopt definite personnel policies?
  - a) Because such action can often forestall a union organizing drive.
  - b) Because this was a basic tenet of "management by objectives."
  - c) Because they help assure consistent, fair treatment of all personnel.
  - d) Because such action increases productivity and cuts labor costs.

12. Management by objectives
  - a) has declined in popularity and is now considered an obsolete concept.
  - b) is part and parcel of the traditional philosophy of management.
  - c) was first formulated by Douglas McGregor.
  - d) is really management by integration and self-control.
13. What are the various basic ways of grouping work activities?
  - a) functional and nonfunctional.
  - b) location, customer, and project.
  - c) location, product, customer, function, and number of persons.
  - d) line and staff.
14. What is authority?
  - a) the power to command performance.
  - b) the power to achieve sought-after results.
  - c) the responsibility assigned by a superior in the organization.
  - d) the legitimate right to direct or influence the performance of others.
15. An important reason why many executives are reluctant to delegate to their subordinates is that
  - a) the executives, themselves, lack sufficient authority to do so.
  - b) job responsibilities have not been put into writing.
  - c) the executives are insecure and are afraid to build up their subordinates.
  - d) the policies of most large organizations discourage effective delegation.
16. Decentralization in organization refers to
  - a) the establishment of many branches of the organization over a wide geographic area.
  - b) placing authority and decision-making power as close to the level at which the work is done as possible.
  - c) the breaking up of large holding companies into a number of smaller, autonomous companies.
  - d) a wide span of control.
17. The functions of staff are to
  - a) provide advice, service, and control.
  - b) direct the coordination of all auxiliary and service functions.
  - c) provide functional coordination.
  - d) see that the line manages the business efficiently.

18. The number of subordinates that one man can effectively supervise is
  - a) limited to five or six.
  - b) dependent upon the complexity of the work, abilities of superior and subordinate, and closeness of control exercised.
  - c) can be determined precisely by mathematical analysis.
  - d) none of the above.
  
19. The concept of a rank order priority of human needs has been developed by
  - a) Sigmund Freud.
  - b) J. L. Moreno.
  - c) A. H. Maslow.
  - d) Karl Menninger.
  
20. For which type of occupational group is competition likely to be least successful as a motivator?
  - a) blue collar workers.
  - b) salesmen.
  - c) professional employees.
  - d) technicians.
  
21. Of what value is job security to industrial employees?
  - a) It ranks low on their system of priorities.
  - b) It ranks high on their system of priorities.
  - c) A threat to job security is an excellent means of encouraging employees to work harder.
  - d) none of the above.
  
22. What is vertical job enlargement?
  - a) adding some planning and control functions to a routine job.
  - b) increasing the quantity of work required per unit of time.
  - c) adding additional but similar tasks to a short cycle repetitive job.
  - d) increasing the scope of authority of lower level administrative positions.
  
23. Which of the following are hygienic factors according to Frederick Herzberg's theory of work motivation?
  - a) responsibility.
  - b) work itself.
  - c) recognition.
  - d) salary.



24. The principal value of money as a motivator
- is in its capacity for inducing superior performance among most workers.
  - lies in what it symbolizes to the recipient.
  - is its ability to provide material rewards to people who exhibit good performance.
  - is very little because pay cannot motivate people to exhibit good performance.
25. Which type of communication tends to be least adequate in organizations?
- upward.
  - downward.
  - horizontal.
  - interpersonal.
26. What is a major cause for the creation and spread of rumors?
- a situation in which people are unclear about their positions and feel they have little control over their destinies.
  - the existence of the grapevine which is augmented by the informal organization.
  - the presence in the group of malcontented individuals who derive satisfaction from generating and spreading rumors.
  - the existence of an informal group which seeks to thwart management's goals.
27. An important factor causing selective perception is
- the impact of the group upon the standards of the individual.
  - feedback.
  - the interaction of the various organs of sense.
  - the tending for one's perception to be governed by his needs and wants.
28. Given free choice people will tend to communicate most often with
- persons of higher status.
  - their peers and with those of higher status.
  - those of lower status.
  - people at all levels about an equal amount.
29. For the transmission of factual, noncontroversial information from management to the work force which two methods has research shown rank highest in terms of accuracy of understanding
- oral plus written and oral only.
  - written only and bulletin board.
  - oral only and grapevine.
  - oral only and written only.

30. In the Leavitt and Mueller experiments into interpersonal communication when students were solving problems, it was found that
- a) accuracy was best in a "yes-no" situation where students could say only yes or no to questions from the instructor.
  - b) accuracy was best and total time for completion was lowest for full feedback between students and instructor.
  - c) accuracy was best and total time for completion was highest for full feedback between students and instructor.
  - d) accuracy was best and total time for completion was lowest for the "yes-no" situation where students could say only yes or no to questions from the instructor.



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31. Why did the girls in the Relay Assembly Test Room increase their output substantially throughout the entire two-year period of the experiment?
- a) They acquired greater skill and experience as the study progressed.
  - b) They increased their output under the impetus of a new wage incentive plan.
  - c) The psychological and sociological climate of the situation had changed significantly.
  - d) The changed physical conditions of work such as rest periods and shortened work days caused the increase in output.
32. What kind of behavior did the men in the Bank Wiring Observation Room exhibit?
- a) social cliques and restriction of output.
  - b) interpersonal competition.
  - c) a continual increasing level of output during the period of study.
  - d) social disorganization and disharmony.
33. Which of the following is generally not a property of a group?
- a) motivation.
  - b) cohesion.
  - c) interaction.
  - d) norm.
34. The term used to designate the forces and actions within a group is
- a) culture.
  - b) cohesion.
  - c) group dynamics.
  - d) informal organization.
35. Groups generally enforce conformity among their members in order to
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  - increased approximately 3 to 4 per cent each year since 1947.
57. The greatest concentration of union membership in the United States is in the following:
- manufacturing, wholesale and retail trade, and fishing and dairy products.
  - transportation, mining, and white collar and professional employment.
  - manufacturing, construction, transportation, mining, and communication.
  - textiles, petroleum and natural gas, and construction.
58. Craft unions typically seek to advance their position by
- bringing in as many new members to the union as possible.
  - restricting the supply of labor for their craft.
  - obtaining strong seniority clauses in the contract to control promotions, transfers, and layoffs.
  - mass picketing.

59. According to research findings of the National Planning Association it has been found that harmonious union-management relations are generally enhanced by
- a) government intervention into the collective-bargaining process.
  - b) a positive acceptance by management of the union as an institution and of collective bargaining as a desirable way of handling employment relationships.
  - c) union officials who have worked closely with management for many years and have had a chance to acquire a management viewpoint.
  - d) a union which has a democratic two-party system.
60. In which sector of the economy has union membership shown the most rapid rate of growth since the early 1960's?
- a) professional employees.
  - b) service workers.
  - c) construction.
  - d) government.
61. Encouragement of collective bargaining as a means of settling employee relations problems was expressed as public policy in the
- a) Landrum-Griffin Act.
  - b) Norris-LaGuardia Act.
  - c) Taft-Hartley Act.
  - d) National Labor Relations Act.
62. Under provisions of the Taft-Hartley Act it is illegal for a union to
- a) call a strike without a prior secret ballot of its membership.
  - b) engage in a primary economic boycott.
  - c) strike to obtain a union shop.
  - d) engage in a jurisdictional strike.
63. What rights (if any) does management have to talk to employees, either individually or in groups, regarding union-management affairs and labor relations?
- a) It is given great latitude to speak to employees as long as it grants the union equal opportunity to reply.
  - b) It has great freedom to express its views as long as there is no threat of reprisal or force or promise of benefit.
  - c) It can say very little because the National Labor Relations Board has consistently held that employer statements on union relations constitute an unfair labor practice.
  - d) It retains all the rights it traditionally had under common law; statute law is silent on the matter.

64. The procedure in the Taft-Hartley Act for handling national emergency disputes provides for
- an 80 day injunction and cooling-off period.
  - compulsory arbitration.
  - government seizure of the struck company and enforced return to work by the employees.
  - none of the above.
65. The principal objective of the Landrum-Griffin Act has been to
- reduce the economic power of unions in relation to employers.
  - correct malpractices in the handling of pension and welfare funds.
  - insure democratic procedures within unions and eliminate dishonesty on the part of union officials in handling union affairs.
  - strengthen the Taft-Hartley Act's prohibitions against secondary boycotts.
66. The establishment of joint union-management bargaining committees to resolve common problems during the life of an agreement, rather than at its termination, first achieved great prominence in which industry?
- automobile.
  - textiles.
  - steel.
  - aero-space.
67. A basic weakness of negative discipline is that
- it only achieves the minimum performance necessary to avoid punishment.
  - it is much more difficult to initiate and administer than positive discipline.
  - it requires extensive training of supervisors in order to succeed.
  - punishment never serves to change people's behavior.
68. An example of positive discipline is
- military discipline.
  - typical prison discipline.
  - a college honor system.
  - none of the above.

69. What provisions do union-management labor agreements typically contain pertaining to discipline?
- Most agreements spell out the rules of conduct, appropriate penalties, and procedures for administering the discipline.
  - Most agreements contain the rules and penalties but say very little about administration of the discipline.
  - Most agreements merely state that management has the right to discipline, suspend, or discharge for just cause and that grievances can be submitted over alleged injustices.
  - Most agreements provide for joint-union-management committees to decide discipline cases.
70. In processing and adjudicating disciplinary cases upon whom is the burden of proof generally placed?
- employer.
  - employee.
  - a preponderance of evidence must be presented by the employer.
  - a preponderance of evidence must be presented by the employee.
71. What form do penalties in industrial discipline usually take?
- monetary fines.
  - demotions.
  - probationary sentences.
  - progressive penalties ranging from an oral warning to a discharge.
72. Essential features of "due process" in industrial discipline are
- trial by jury and provision of legal counsel to the accused.
  - arbitration before a tripartite board and provision for legal counsel.
  - the right of habeas corpus and presumption of innocence until proven otherwise.
  - communication of rules, burden of proof, and right of appeal.
73. The definition of a grievance includes
- only those which allege a violation of the labor-management agreement.
  - any dissatisfaction in connection with one's employment situation that is brought to the attention of management.
  - any discontent or sense of injustice, expressed or not, felt by an employee in connection with his job.
  - only those complaints which are acted upon by the union.

74. What portion of labor-management agreements contain provisions for definite grievance procedures?
- a) about 15 per cent.
  - b) about 65 per cent.
  - c) over 90 per cent.
  - d) less than 40 per cent.
75. The final step of most grievance procedures under collective bargaining agreements is
- a) top management.
  - b) a board of review.
  - c) arbitration.
  - d) a board of mediation.
76. Most grievance procedures under collective agreements provide for initial presentation of the grievance to
- a) the union steward.
  - b) the industrial relations office.
  - c) a joint union-management grievance committee.
  - d) the first-line supervisor.
77. Most arbitrators in the United States are employed
- a) on an ad hoc basis by the parties involved.
  - b) on a permanent umpire basis by the parties involved.
  - c) by the various states to help settle labor disputes.
  - d) by the federal government to help settle labor disputes.
78. A basic problem with the open door policy is that
- a) it encourages employees to magnify their dissatisfactions by bringing them to top management.
  - b) the social and organizational gulf between the worker and top management minimizes the likelihood of the employee taking his complaint to the chief executive.
  - c) it is more costly to operate than other grievance handling systems.
  - d) unions don't like such plans.



APPENDIX G. REPORT OF STUDY TIME



---

Name (last name first)

\_\_\_\_\_ hour(s)

hour(s) spent studying  
for this course during  
the week just completed

---

Today's date

Please be candid in this report of out-of-class time you have spent studying for this course. These reports are being used by an educational researcher to determine if the amount of time spent in studying for this course is related to the scores you attain on the mid-term and final examinations.

This report will IN NO WAY affect your grade.

APPENDIX H. ENGINEERING COUNCIL COURSE-  
INSTRUCTOR EVALUATION

Engineering Council Course-Instructor Evaluation

The Engineering Council Course-Instructor Evaluation Committee would like to solicit your help in filling out this form; participation will have absolutely no effect on your grade. We feel that if you complete it to the best of your ability, you will be contributing to the improvement of instructor performance and course structure at Iowa State University.

## Directions:

1. The questionnaire is to be filled out anonymously.
2. Record only the following information at the top of the answer sheet: course name, number, section, and the name of the instructor.
3. Please use a #2 lead pencil; ink won't register with the computer.
4. Answer the questions according to the following format unless otherwise noted: 1 = strongly disagree or never; 2 = disagree or seldom; 3 = indifferent or sometimes; 4 = agree or frequently; 5 = strongly agree or often.

## Questions:

1. The instructor encouraged open-ended inquiry and discussion when consistent with the instructional goals.
2. The instructor used appropriate ways of measuring students' achievement and/or progress toward instructional goals.
3. An acceptable variety of teaching materials and instructional media was effectively used in the course.
4. The instructor selected appropriate teaching techniques and strategies to fit the situation.
5. Effort was made by the instructor to create a desire in the student to become involved in the learning process.
6. Would you say the instructor treated students with respect?
7. The instructor tried to maintain an open, friendly rapport with students.
8. The instructor was sincerely interested in the subject being taught.
9. The instructor communicated effectively at levels appropriate to the preparedness of the student.
10. Regardless of learning ability, the instructor was supporting and accepting of each individual student.

11. The tests incorporated a variety of levels of questions to evoke thinking beyond simple textbook regurgitation.
12. Do you think the instructor really knows how to explain things so that the students are able to understand?
13. Test questions were stated clearly.
14. The instructor was well prepared for class.
15. When incorrect work was marked and returned to you, was it clear to you why the work was incorrect?
16. Did the homework assignments contribute to the understanding of course material?
17. Did you learn enough from this course to justify taking it? 1 = yes, 2 = no
18. How does this instructor rate with the others you have had at Iowa State? 1 = far below average; 2 = below average; 3 = average; 4 = above average; 5 = far above average.

\*\*19-30 Instructors please feel free to ask own questions;  
have students code answers on answer sheet.

ANY ADDITIONAL COMMENTS THE STUDENT MAY HAVE CONCERNING COURSE  
OR INSTRUCTOR ARE WELCOME ON THE BACK OF THE ANSWER SHEET.

APPENDIX I. ATTITUDINAL QUESTIONNAIRE

Name \_\_\_\_\_

Attitudinal Questionnaire

This is not an examination; it is part of a project to study the attitudes of students toward personnel management. Please write your name in the upper right hand corner so that different groups of students can be compared. No results will be used in any way that will influence your grade in this or any other course. We are interested in your feelings or opinion about each statement.

After you have read each statement, please circle the "A" (agree) if you agree with the statement or the "D" (disagree) if you disagree with the statement. Once you have made this decision, please indicate how strongly you agree or disagree with the statements by circling one of the numbers which appear to the right of each statement.

For example, consider the statement:

	<u>slight</u>	<u>strong</u>
All men are created equal.	A	1 2 3 4 5
	D	

Do you agree or disagree with this statement? Circle "A" ("D"). How strongly do you agree (disagree) with this statement? Circle the appropriate number.

Please be sure to circle both a number and a letter after each statement, unless you are completely undecided whether you agree or disagree with the statement. In that case, circle both "A" and "D", but do not circle any of the numbers. This response indicates that you neither agree nor disagree with the statement.

There are no right or wrong answers to the statements. The answers which will be most helpful to this project are the ones which best reflect your own feelings about each of the statements.

Thank you for your cooperation.

- |     |  | slight |   |   |   | strong |
|-----|--|--------|---|---|---|--------|
| 1.  | The feeling I have toward personnel management is a good feeling.                | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 2.  | Personnel management can be made understandable to almost every college student. | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 3.  | I can't see where personnel management will ever help me.                        | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 4.  | I don't think I can ever do well in personnel management.                        | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 5.  | Only people with a special talent can do well in personnel management.           | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 6.  | Personnel management is both fascinating and fun.                                | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 7.  | I feel a sense of insecurity in personnel management.                            | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 8.  | I feel at ease in personnel management.  | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 9.  | Personnel management is something I enjoy a great deal.                          | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |
| 10. | I do not like personnel management.  | A      | 1 | 2 | 3 | 4 5    |
|     |  | D      |   |   |   |        |

- |     |   | slight |   |   |   | strong |
|-----|---|--------|---|---|---|--------|
| 11. | Personnel management is stimulating.  | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 12. | It makes me nervous to even think about resolving a personnel management problem.                   | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 13. | I wish I were not required to study personnel management.   | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 14. | I would like to study more about personnel management whether or not it is required for my program. | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 15. | Personnel management is very interesting to me.   | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 16. | Almost anyone can learn personnel management if he is willing to study.                             | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 17. | The feelings I have toward labor unions are good feelings.  | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 18. | I can't see where knowledge of labor unions will ever help me.                                      | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 19. | Labor unions are basically dishonest.   | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |
| 20. | When I hear the words labor unions, I have a feeling of dislike.                                    | A      | 1 | 2 | 3 | 4 5    |
|     |   | D      |   |   |   |        |



- |     |   | slight | strong    |
|-----|---|--------|-----------|
| 21. | It makes me nervous to even think about having to work with labor unions.   | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 22. | I approach labor unions with a feeling of hesitation--hesitation from a fear of not being able to relate to them. | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 23. | I would like to study more about labor unions.  | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 24. | Labor unions are very interesting to me.  | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 25. | I wish I were not required to study about labor unions.   | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 26. | The study of labor unions is fascinating and fun.   | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 27. | It scares me to interact in groups.   | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 28. | The feeling I have toward group interaction is a good feeling.  | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 29. | I don't think I can ever do well in large group situations.   | A      | 1 2 3 4 5 |
|     |   | D      |           |
| 30. | Group activity is fascinating and fun.  | A      | 1 2 3 4 5 |
|     |   | D      |           |

- |     |   | slight | strong |   |   |   |   |
|-----|---|--------|--------|---|---|---|---|
| 31. | I feel a sense of insecurity when attempting to interact in a group.    | A      | 1      | 2 | 3 | 4 | 5 |
|     |   | D      |        |   |   |   |   |
| 32. | Group activities make me feel secure.                                   | A      | 1      | 2 | 3 | 4 | 5 |
|     |   | D      |        |   |   |   |   |
| 33. | It makes me nervous to even think about having to work in large groups. | A      | 1      | 2 | 3 | 4 | 5 |
|     |   | D      |        |   |   |   |   |
| 34. | I wish I were not required to work in group situations.                 | A      | 1      | 2 | 3 | 4 | 5 |
|     |   | D      |        |   |   |   |   |
| 35. | I really like group activities.   | A      | 1      | 2 | 3 | 4 | 5 |
|     |   | D      |        |   |   |   |   |
| 36. | I would like to study more about group activities.                      | A      | 1      | 2 | 3 | 4 | 5 |
|     |   | D      |        |   |   |   |   |

APPENDIX J. LEADERSHIP OPINION QUESTIONNAIRE

# Leadership

## Opinion 152 Questionnaire

by Edwin A. Fleishman

Name \_\_\_\_\_ Date \_\_\_\_\_  
 (Last) (First) (Middle)  
 Organization \_\_\_\_\_ Position \_\_\_\_\_

Raw Score	Percentile	Other
C		
S		
Description of Norm Group		

### INSTRUCTIONS:

For each item, choose the alternative which most nearly expresses your opinion on how frequently you *should* do what is described by that item. Always indicate what you, as a supervisor, or manager, sincerely believe to be the desirable way to act. Please remember—there are no right or wrong answers to these questions. Different supervisors have different experiences and we are interested only in your opinions.

Answer the items by marking an "X" in the box before the alternative that best expresses your feeling about the item. *Mark only one* alternative for each item. If you wish to change your answer, draw a circle around your first "X" and mark a new "X" in the appropriate box.



Science Research Associates, Inc.  
 259 East Erie Street, Chicago, Illinois 60611

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1. Put the welfare of your unit above the welfare of any person in it.

- Always
- Often
- Occasionally
- Seldom
- Never

2. Give in to your subordinates in discussions with them.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very Seldom

3. Encourage after-duty work by persons of your unit.

- A great deal
- Fairly often
- To some degree
- Once in a while
- Very seldom

4. Try out your own new ideas in the unit.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

5. Back up what persons under you do.

- Always
- Often
- Occasionally
- Seldom
- Never

6. Criticize poor work.

- Always
- Often
- Occasionally
- Seldom
- Never

7. Ask for more than the persons under you can accomplish.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

8. Refuse to compromise a point.

- Always
- Often
- Occasionally
- Seldom
- Never

9. Insist that persons under you follow to the letter those standard routines handed down to you.

- Always
- Often
- Occasionally
- Seldom
- Never

10. Help persons under you with their personal problems.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

11. Be slow to adopt new ideas.

153

- Always
- Often
- Occasionally
- Seldom
- Never

12. Get the approval of persons under you on important matters before going ahead.

- Always
- Often
- Occasionally
- Seldom
- Never

13. Resist changes in ways of doing things.

- A great deal
- Fairly much
- To some degree
- Comparatively little
- Not at all

14. Assign persons under you to particular tasks.

- Always
- Often
- Occasionally
- Seldom
- Never

15. Speak in a manner not to be questioned.

- Always
- Often
- Occasionally
- Seldom
- Never

16. Stress importance of being ahead of other units.

- A great deal
- Fairly much
- To some degree
- Comparatively little
- Not at all

17. Criticize a specific act rather than a particular member of your unit.

- Always
- Often
- Occasionally
- Seldom
- Never

18. Let the persons under you do their work the way they think is best.

- Always
- Often
- Occasionally
- Seldom
- Never

19. Do personal favors for persons under you.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

20. Emphasize meeting of deadlines.

- A great deal
- Fairly much
- To some degree
- Comparatively little
- Not at all

21. Insist that you be informed on decisions made by persons under you.

- Always
- Often
- Occasionally
- Seldom
- Never

22. Offer new approaches to problems.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

23. Treat all persons under you as your equals.

- Always
- Often
- Occasionally
- Seldom
- Never

24. Be willing to make changes.

- Always
- Often
- Occasionally
- Seldom
- Never

25. Talk about how much should be done.

- A great deal
- Fairly much
- To some degree
- Comparatively little
- Not at all

26. Wait for persons in your unit to push new ideas.

- Always
- Often
- Occasionally
- Seldom
- Never

27. Rule with an iron hand.

- Always
- Often
- Occasionally
- Seldom
- Never

28. Reject suggestions for changes.

- Always
- Often
- Occasionally
- Seldom
- Never

29. Change the duties of persons under you without first talking it over with them.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

30. Decide in detail what shall be done and how it shall be done by the persons under you.

- Always
- Often
- Occasionally
- Seldom
- Never

154 31. See to it that persons under you are working up to capacity.

- Always
- Often
- Occasionally
- Seldom
- Never

32. Stand up for persons under you, even though it makes you unpopular with others.

- Always
- Often
- Occasionally
- Seldom
- Never

33. Put suggestions made by persons in the unit into operation.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

34. Refuse to explain your actions.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

35. Ask for sacrifices from persons under you for the good of your entire unit.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

36. Act without consulting persons under you.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

37. "Needle" persons under you for greater effort.

- A great deal
- Fairly much
- To some degree
- Comparatively little
- Not at all

38. Insist that everything be done your way.

- Always
- Often
- Occasionally
- Seldom
- Never

39. Encourage slow-working persons in your unit to work harder.

- Often
- Fairly often
- Occasionally
- Once in a while
- Very seldom

40. Meet with the persons in your unit at certain regularly scheduled times.

- Always
- Often
- Occasionally
- Seldom
- Never

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**SCORING INSTRUCTIONS:**

1. This questionnaire yields two scores, one for *Consideration* (C) and one for *Structure* (S). X's placed in circles are scored for *Consideration*, and X's appearing in boxes are scored for *Structure*. These circles and boxes are arranged in groups of five, corresponding to the five choices for each item. On the right side of each circle or box is a number that shows the score points on C or S that an answer in that space should receive. There should be only one X answer in each set of five. Note that X's circled by the examinee are not counted (S).
2. Starting from the top of Column 1, add the number of score points beside the marked circles in Column 1. Record the sum in the C score box at the bottom of the column.
3. Again starting at the top of Column 1, add the number of score points beside the marked boxes and record the sum in the S score box at the bottom of the column. In the same way, add the score points beside the circles and beside the boxes for the other three columns and record the scores under C and S respectively at the bottom of each column.

4. Check your work by a second adding of the score points for C and S in each column. This time begin at the bottom and add up. Record the check scores at the top of the page and compare these scores with those recorded in the boxes at the bottom of each column. If a scores does not agree, add the column again.

5. When you are satisfied that all column totals for C and S are correct, sum the column totals for each scale and record the total score for C and the total score for S in the total-score box at the lower right-hand corner. Transfer these total scores to the appropriate boxes on the front of the test booklet.

APPENDIX K. COURSE QUESTIONNAIRE



Course Number \_\_\_\_\_

Instructor <sup>157</sup> \_\_\_\_\_

Curriculum \_\_\_\_\_

COURSE QUESTIONNAIRE

For this course--

1. Which would you prefer?

Text(s) with assigned readings

No text, but assigned subjects for your own research.

2. What type test gives you the best opportunity to demonstrate your capability?

Essay

Oral

Multiple Choice

Case Study

True/False

3. How many tests should be given during the quarter?

One

Two

Three

Four

More

4. What part of your grade should be determined by class attendance?

1/8

1/4

1/2

More

Less

5. What part of your grade should be determined by class participation?

1/8

1/4

1/2

More

Less

6. On what criterion should this participation be judged? \_\_\_\_\_

\_\_\_\_\_

7. Should more group interaction in class be? encouraged  / discouraged

8. The method of teaching I would prefer would be:

Lecture

Lecture Discussion

Case Study Role Play

Role Play Lecture

Case Study Lecture

Case Study Role Play  Lecture

9. Reason for taking this course: As an elective

To meet a requirement

10. What final grade do you expect?

A

B

C

D

F

I

P

NP

11. I have taken or am taking the following course(s):

	Have Taken	Am Taking
IE 351	<input type="checkbox"/>	<input type="checkbox"/>
IE 250	<input type="checkbox"/>	<input type="checkbox"/>
I Ad 368	<input type="checkbox"/>	<input type="checkbox"/>
Econ 305	<input type="checkbox"/>	<input type="checkbox"/>
Econ 445	<input type="checkbox"/>	<input type="checkbox"/>
Psych 450	<input type="checkbox"/>	<input type="checkbox"/>
Psych 451	<input type="checkbox"/>	<input type="checkbox"/>
Soc 480	<input type="checkbox"/>	<input type="checkbox"/>

If yes to any of the above, please answer the following:

A. Did you observe a duplication of topics covered?

Yes  No

B. What suggestions can you offer to reduce this duplication? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_