The Development and Pilot Operation of an Assessment Center with Implications for the Selection of School Principals

Margaret Gallagher
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THE DEVELOPMENT AND PILOT OPERATION OF AN ASSESSMENT CENTER WITH IMPLICATIONS FOR THE SELECTION OF SCHOOL PRINCIPALS

by

Margaret Gallagher

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
Degree of Doctor of Education

Western Michigan University
Kalamazoo, Michigan
August 1978
The writer acknowledges the support and guidance given by Dr. Donald C. Weaver, Dr. Carol F. Sheffer, and Dr. Gene S. Booker in the completion of this study. The writer is also indebted to Robert Frost, Henry Dahl, and Gary VandenBerg without whose cooperation, assistance, and support this research would not have been possible.

The writer expresses gratitude to The Mott Foundation for their financial support, and finally offers deep thanks to her friends and family who encouraged her on the dark as well as the sunny days.

Margaret Gallagher
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CHAPTER I

THE PROBLEM

Introduction

There is widespread agreement that the school principal assumes a key role in shaping the quality of the education offered in our public schools (Casteltler, 1976; Erickson & Shinn, 1976; Sergiovanni & Carver, 1973). The quality of leadership offered by the principal impacts on the climate of the organization (school), its goal setting and achievement capabilities, the full use of its staff resources, and numerous other organizational concerns.

Increased demands for public accountability in education and pressures by teachers unions, state agencies and others are forcing school principals to assume new and more responsible roles in such administrative areas as fiscal control, planning and budgeting, program development and evaluation, employer relations and special services. (Deluzain & Cohen, 1976, p. 31)

Indeed, it is obvious that the demands facing the principal today require a high quality of leadership. It follows, then, that the decision to select a principal for a particular school is one of the critical decisions facing a school district and that adequate time, resources, and consideration should be given to the selection of the most competent person for the job (Erickson & Shinn, 1976).

Though much has been written about the role of the principal
and problems facing the principal, there is little available research on the processes of selection employed by school districts in their choice of a principal. The need for sound and systematic procedures for the selection of principals has been discussed by several writers (Deever & Jurs, 1976; Elsbree & Reuter, 1954; Fensch & Wilson, 1964; Knezevich, 1971; Sergiovanni & Carver, 1973), and yet, there is little evidence that this need has been addressed and that sound and systematic procedures for the selection of principals have been designed. McIntyre (1974) noted that often selection procedures are unrelated to the competencies of the principalship:

Certain unproductive customs have dominated the selection process. The trait approach to the study of behavior, with the oversimplifications that usually accompany it, to the exclusion of situational variables; the value attributed to inordinate amounts of teaching experience; and the blind faith that is usually placed in interviews, letters of recommendations, and rating scales—all are examples of traditional practices that should be curtailed. (p. 18)

The impetus to devise sound and systematic selection procedures comes not only from the need for qualified leadership but also from pressure to comply with government regulations. The Equal Employment Opportunity Commission (EEOC) under the authority of Title VII of the Civil Rights Act of 1964 has issued guidelines (Federal Register 35:1233-336) for employee selection procedures which seek to insure fair and objective selection based on job-related criteria. In 1971, Griggs et al. vs. Duke Power, the Supreme Court
affirmed the guidelines promulgated by EEOC stating that the "organization must be prepared to prove that their standards for selection and appraisal are job-related" (Byham, 1971, p. 13). There is little evidence of a sense of urgency among educators to deal with this reality though Bridges and Baehr, as early as 1971, warned educators of the implications:

Current criteria for selecting administrators are vulnerable. When the assault comes, and it is imminent, the attackers will be the champions of civil rights. The weapon will be reason and the battlefield will be the court room . . . When the attack comes it will not be limited to paper and pencil tests. Scored interviews, biographical information blanks, and work history requirements will be scrutinized . . . In short, no criterion of selection seems exempt from the validity requirement if discrimination can be demonstrated. (unnumbered pages)

Likewise, government and industry have the need for quality leadership and adequate selection procedures. Though their selection procedures commonly include interviewing and various paper and pencil testing techniques, there is increasing interest in a selection procedure known as the assessment center method. It is important to note that the assessment center method, frequently referred to only as "assessment center," is in fact a method and not a place. Cohen, Moses, and Byham (1974) described in general terms the assessment center:

The assessment center is a comprehensive, standardized program in which participants are evaluated for selection, training or career planning purposes. Multiple
observational techniques are used, and each participant is evaluated along a number of previously determined management dimensions. A team of assessors observes and evaluates each participant on the dimensions and makes an overall judgment of each participants' potential for advancement, development, or replacement. (p. 1)

Early assessment activities are traced to German military psychologists in 1911 and later to Henry Murray in personality research at Harvard University in 1938. It was, however, during World War II that the assessment center was used regularly for the selection of high-level military and support personnel by the British War Office Selection Board (WOSB) and the U. S. Office of Strategic Services (OSS). After World War II, psychologists interested in identifying the career potential of officer candidates, professional trainees, and graduate students made use of the assessment center procedures. In 1956, American Telephone and Telegraph (AT&T) introduced the use of the assessment center in industry. Their first centers, modeled after the OSS program, were used for research data only. In 1958, the Bell System assessment centers became operational for the purpose of selecting entry-level managers. Numerous organizations followed the Bell System in development of assessment centers, and since the late 1960's, industries and governmental agencies have shown increased acceptance of this method (Bray & Moses, 1972).

Assessment centers have been and are used not only for

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managerial selection, but also for identification of training and development needs, placement, and early identification of talent. As a systematic and standardized procedure, the assessment center provides for the documentation of observable behavior. This feature of the assessment center is of particular importance in terms of compliance with EEOC regulations.

An assessment center, by design, is tailored to meet the needs of a particular organization as that organization attempts to develop and select leaders to meet its particular needs. The assessment center is most commonly used as a selection technique, though it may also be used solely for career development. If carefully designed, it may accomplish both of these purposes. Each organization choosing to use the assessment center as a managerial development and/or selection devise must develop its own center. This developmental phase is crucial to the success or failure of the assessment center because it is in this phase that such critical questions regarding purpose and the nature of the leadership function are addressed. It is the developmental phase of the assessment center method which is the focus of this study.

Statement of the Problem

The purpose of this investigation was to describe the development and pilot operation of an assessment center used by a large
(Fortune 500, 1976) company for the purpose of managerial selection and development, and to draw implications for the use of the assessment center method in the selection of school principals. Though the assessment center designed by this company was unique to its organization, the development and operation of the method is applicable to other organizations.

The following questions were selected for investigation:

1. What are the key steps in the development of an assessment center as a selection tool for an organization?

2. What steps were taken to secure the commitment of top level management in the development and use of the assessment center?

3. What steps were taken to insure the positive introduction of the assessment center to company employees?

4. What possibilities does the assessment center hold for use as a tool in the selection of school principals?

5. What obstacles might be expected to hinder the use of the assessment center as a tool in the selection of school principals?

Significance of the Study

There is an obvious need for quality leadership in our educational institutions. The school principal in particular holds a critical position. This need for capable leadership, as well as the need for demonstrable objectivity and fairness in selection practices,
demands that educators research and develop new selection procedures.

This study is important for the following reasons:

1. It described in detail the development and pilot operation of an assessment center, a selection tool used successfully by government and industry but unfamiliar to most educators.

2. This description may serve to reduce some of the uncertainties involved in moving into unfamiliar territory in that it is presented by an educator with implications for education.

3. This description will hopefully stimulate research and experimentation with the assessment center in education in order to improve leadership selection and comply with federal regulations for more objective selection procedures.

Limitations

This study addressed itself to the development and operation of only one method of managerial selection, namely, the assessment center. Further, it is important to note that the assessment center is one step in the selection process and provides just one part of the data used in the decision-making process of selection.

The investigation was a case study which relied on participant observation and interviewing for its data gathering procedures. As a case study, it described the development of an assessment center from its inception through the pilot project in one organization and, likewise, was limited in part to the perceptions of the few persons
involved in the development of the assessment center for that one organization. Its primary focus was on the development and pilot operation of the assessment center as a selection tool. The case study, like any research method, has its limitations but also has its advantages. Stake (1977) discussed this issue:

In American research circles most methodologists have been of positivist persuasion. The more episodic, subjective procedures, common to the case study, have been considered weaker than the experimental or correlational studies for explaining things. When explanation, propositional knowledge or law are the aims of an inquiry, the case study will often be at a disadvantage. When the aims are understanding, extension of experience, and increase in conviction in that which is known, the disadvantage disappears. (p. 4)

In order that the researcher’s presence during the assessment center be accepted and consequently inconspicuous, she was named co-administrator of the center and as such may have been considered a participant-observer. Identifying its limitations, Bouchard (1976) made a case for the advantages of participant observation:

In spite of the low esteem in which participant observation is held in the "scientific community," it is worth noting that a number of classic studies in industrial and organizational psychology are based on this methodology, (Blau, 1963; Dalton, 1959; Gouldner, 1954; Selznick, 1949). This much maligned method . . . has strengths which compensate for the weaknesses of other methods. (p. 385)

He cites three advantages: (a) The research is focused on actual behavior rather than interview or test-taking behavior; (b) the researcher is forced to look at the integrated wholeness of the
system; and (c) the research is put in the "context of discovery" (p. 385). Context of discovery here referred to "the fairly common experience of observing an unanticipated, anomalous strategic datum which becomes the occasion for developing a new theory or extending an existing theory" (p. 385). Further discussion of case study methodology and participant observation is presented in Chapter III.

Assumptions

This study was conducted under the following assumptions:

1. That selection of leadership in an organization will have great impact on the effectiveness of an organization.

2. That the leadership behaviors characteristic of industrial management are more alike than different from the leadership behaviors needed by educational management.

3. That the development of an assessment center for managerial selection in industry will be more alike than different from the development of an assessment center for managerial selection in education.

Overview

The purpose of Chapter I has been to state the problem, the questions for investigation, the importance of the study, the limitations, the assumptions, and the organization of this dissertation. Two areas of related literature and research are reviewed in Chapter II. One area relates to the assessment center and its use in
industry and government while the second relates to the procedures used in the selection of school principals. Chapter III reviews the methodology used in the study. The description of the development and pilot operation of the given assessment center is contained in Chapter IV. An analysis of the development and pilot operation of the assessment center is presented in Chapter V. A discussion of possible implications for use of the assessment center in education and a summary of the study are presented in Chapter VI.
CHAPTER II

REVIEW OF LITERATURE AND RELATED STUDIES

The literature related to the problem identified in Chapter I is reviewed here under two major headings: (a) the assessment center and (b) the selection of school principals.

The Assessment Center

The majority of research studies related to the assessment center were found in the personnel management and psychology literature, with only rare mention of the method to be found in the education literature. From the literature it became apparent that the assessment center is still very much in the developmental stage. Though research on the use of the method in the United States dates back to the OSS Assessment Program during World War II, research on industrial assessment centers began as late as 1956. With the exception of very few controlled research studies, the data gathered on the assessment center came from the operational use of the assessment center by industry and government. The reason for the dirth of controlled research is the pressing need for competent managers in industry and government which demand that the data gathered from the assessment center be used for the selection and
development of managers, not stored for pure research. This presents some difficulty for those who need a substantial body of research evidence before deciding on acceptance or rejection of the assessment method.

A survey of the literature also revealed great variety in the design, operation, and use of the assessment center. In light of the rapid growth of assessment centers and the proliferation of applications, the Third International Congress on the Assessment Center Method (1975) approved the Standards and Ethical Considerations for Assessment Center Operations in which the assessment center was defined in terms of the following minimal requirements:

1. Multiple assessment techniques must be used. At least one of these techniques must be a simulation.

A simulation is an exercise or technique designed to elicit behaviors related to dimensions of performance on the job by requiring the participant to respond behaviorally to situational stimuli. The stimuli present in a simulation parallel or resemble stimuli in the work situation. Examples of simulations include group exercises, in-basket exercises, and fact-finding exercises.

2. Multiple assessors must be used. These assessors must receive training prior to participating in a center.

3. Judgments resulting in an outcome (i.e., recommendation for promotion, specific training or development) must be based on pooling information from assessors and techniques.

4. An overall evaluation of behavior must be made by the assessors at a separate time from observation of
5. Simulation exercises are used. These exercises are developed to tap a variety of predetermined behaviors and have been pretested prior to use to insure that the techniques provide reliable, objective, and relevant behavioral information for the organization in question.

6. The dimensions, attributes, characteristics or qualities evaluated by the assessment center are determined by an analysis of relevant job behaviors.

7. The techniques used in the assessment center are designed to provide information which is used in evaluating the dimensions, attributes or qualities previously determined.

In summary, an assessment center consists of a standardized evaluation of behavior based on multiple inputs. Multiple trained observers and techniques are used. Judgments about behavior are made, in part, from specially developed assessment simulations.

These judgments are pooled by the assessors at an evaluation meeting during which all relevant assessment data are reported and discussed, and the assessors agree on the evaluation of the dimensions and any overall evaluation that is made. (p. 2)

In most instances, the practical nature of the research on assessment centers mentioned earlier seems to preclude efforts to place the method in a theoretical context. Though clear formulations of selection or assessment theory are lacking, various related theories are criticized in the selection literature. Pointing out the inadequacy of both the life-process theory which emphasizes the crucial role of training and development in the "making" of executives, and the skill-insight theory which emphasizes the role of inborn behavior.
characteristics in executive success, Dunnette (1967) emphasized
the importance of job-related criterion. Similarly, Pomerleau (1973)
rejected the theory that leaders "emerge" stating that "expertise
rarely filters upward, certainly not fast enough or with sufficient
reliability" (p. 436). In the absence of formal theory, one of the
clearer statements of principles underlying the assessment center
dates back to the original OSS Assessment Center and provides some
insight into both past and present centers:

[The purpose was to organize] according to organismic
(Gestalt) principles; that is to say, to design a variety of
task-in-situations which would test a man's effectiveness
in performing functions of the same type and of the same
integrative level, and under somewhat similar conditions,
as those he would be required to perform in the field . . .
Make-believe, yet to a degree, realistic test situations
conform to organismic principles in so far as they call
for functional operations, or proceedings, of personality
at a relatively high level of differentiation and integration,
the level that must be sustained if one is to act appropri­
ately and efficiently in everyday life, especially in a
policy making, administrative, or executive capacity.
(Murray & MacKinnon, 1946, p. 77)

The emphasis on situational behavior lessens the problems
associated with defining the qualities needed by executives and encour-
ages the definition and observation of specific skills (Katz, 1955).

Taylor (1962) described these skills in terms of "can-do factors"
(aptitudes, knowledge, skills, intelligence) and "will-do factors"
(attitudes, preferences, motivations, and personality characteristics).
In assessment centers they are referred to as "dimensions."
Hinrich (1970) listed 10 general principles underlying the use of an assessment center for the early identification of managerial talent:

1. Human behavior tends to repeat itself.

2. An early identification process is a probability process.

3. The process is ongoing and must not be seen as irrevocable.

4. The process involves a multi-faceted strategy and not the simple use of one indicator.

5. The prediction procedures must be standardized and universally applied in the organization.

6. These procedures must be tailored to the organization.

7. The procedures must be validated within the environment in which they are used.

8. Recognition that there is overlap between assessment and development should be used fruitfully.

9. There is always an area of judgment in assessment. Management must rely on its best-informed judgment.

10. The final judgment regarding selection must be made by responsible line management, not by a personnel staff group. (p. 1,010)

These principles provide the background for a more specific discussion of assessment center research.

The Management Progress Study, the classic industrial assessment center study, reported by Bray, Campbell and Grant (1974),
was begun in 1956 by American Telephone and Telegraph (AT&T). A longitudinal study, it sought to answer questions about the changes that take place in people as their lives develop in a business context, the causes of these changes, and the possibility of accurately predicting progress in management. The study focused on 274 college recruits and used the assessment center method, interviews, and various tests to gather the necessary data. Confidentiality was strictly observed not only for ethical, but especially for research reasons. Neither the subjects, nor AT&T management has ever received feedback pertinent to individual performance. In sharp contrast to most other assessment center research studies, the Management Progress Study validity data have not been contaminated by use of the results for selection or development purposes. In this regard, the Management Progress Study has made a tremendous contribution to assessment center research.

Within the assessment center portion of the Management Progress Study subjects were given an overall rating used to identify those that were predicted to reach middle management within 10 years and those who would fail to reach middle management within 10 years. The results of the study showed that 64 percent of those predicted to reach the third level of management had in fact done so, as compared to only 32 percent of those who had not been so assessed. Bray et al. (1974) discussed the findings:
This means, very simply, that it is possible to improve substantially on the selection made by ordinary college recruiting processes. It also means that personal characteristics displayed on the day of employment are definitely related to later success. When we consider that this result was obtained in spite of the effects of different rates of progress in different telephone companies and different departments, the accuracy of prediction is even more impressive. (p. 70)

Through the factor analysis of the 25 variables identified in the study, the characteristics essential to managerial success were grouped into seven areas, namely: administrative skills, interpersonal skills, intellectual ability, stability of performance, work motivation, career orientation, and dependence on others. These dimensions were not completely independent. Administrative skills, for instance, were correlated with intellectual ability and interpersonal skills with stability of performance. After identifying these dimensions, the critical question of how to measure them arose. The usual recruiting at AT&T included interviews, application form, and paper-and-pencil tests. The interview could provide information to make judgments on work motivation and career orientation. The paper-and-pencil tests could evaluate intellectual ability, but no attempt had previously been made to measure administrative skill, leadership, or stability of performance, though collegiate extracurricular activities were sometimes used as an indication of these dimensions. Bray et al. (1974) commented on the inadequacy of this process, stating:
Even at best, however, such indirect evidence is a weak substitute for direct observation of administrative and interpersonal behavior. . . . [Furthermore,] the success of the assessment center in predicting progress, and the importance of such simulation techniques in the assessment process, lead clearly to the conclusion that assessment of management recruits would greatly increase accuracy in the employment process. (pp. 190-191)

They concluded moreover that the cost of recruiting future middle management could be greatly reduced by the accurate predictions obtained through the assessment center. Excess hiring could be avoided, and motivation and morale problems that result from the unrealistic expectations of those with lower potential could be lessened.

Though data from the Management Progress Study continues to be used only for research purposes, many companies in the Bell System operate assessment centers for the purpose of selection and development. The first of these centers was held by Michigan Bell in 1958 in order to facilitate the selection of first-line supervisors from the ranks of nonmanagement employees. Techniques which required professional staff members, such as personality measures and projective tests, were not employed. Campbell and Bray (1967) reported on the Michigan Bell Study which compared the first 40 men assessed and promoted with the last 40 promoted before the assessment program started. Though the study was weakened by the fact that the groups were not matched, the findings show that approximately
two-thirds of the assessed group were rated "better than satisfactory" in job performance as compared to only one-third of the group that was not assessed. Equally positive results are noted for potential in higher levels of management.

After follow-up studies of several telephone companies' assessment centers, Campbell and Bray (1967) reported that the assessment centers had high face validity to management for several reasons. Management had been encouraged to observe and had received relevant reports which provided them with feedback. The assessment centers permitted line-management greater involvement in selection and maintained their authority to promote.

Several factors, noted by Campbell and Bray (1967), make validity studies of assessment centers difficult: (a) The results of most assessment centers are used operationally by management, that is, only those who have performed well in the assessment center are promoted. Therefore, it is difficult to find a group that can be legitimately compared with those who have done well in the assessment center and are now in management. (b) Ways of obtaining accurate ratings of a person's performance in management are lacking. (c) The results of nearly all assessment centers are returned to line management and therefore influence the job placement of the person and the opinions others have of the person's ability and performance. Typically, in order to determine validity, the researcher
retains records of the assessment center judgments and ratings for a period of time in order to obtain criterian information. Then, these predictions are compared with events (progress and performance in management) and results are reported as correlations or in the form of expectancy tables (Klimoski & Strickland, 1977).

To various extents these [validity] studies all suffer from methodological flaws caused by the fact that use was made of the data in the organization. To the extent that good performance affected the criterion used, e.g., promotion, use of the criterion as a measure of validity is impaired. The extent of this contamination remains a mystery; but through various statistical and experimental design methods, most of the reported studies have minimized the effect. (Byham, 1971, p. 15)

Addressing the issue of validity, which is important for future research and refinement of the method, Hardesty and Jones (1968) pointed out that "one would have to be validating not only the results of the tests, exercises, interviews, etc., but also the judgmental assessment conclusions as well as the way the information is interpreted and used by managers" (p. 87).

Reporting on the assessment center program at IBM where 1,086 employees from manufacturing, sales, and service were assessed between 1965 and 1970, Kraut and Scott (1972) found that despite the requirement that only those rated as "promotable" by management be allowed to participate, after assessment, 30 percent of the participants from sales, 26 percent from service, and 27 percent from manufacturing were given "remain non-management"
ratings by the assessment center staff and the others were widely different. A study by Greenwood and McNamara (1967) showed similar findings. Kraut and Scott (1972) also noted that first promotions resulting directly from assessment performance were moderate enough to reduce fears of a "crown prince" effect on those who performed well or "kiss of death" effect on those whose performance was lacking. In addition, they concluded that assessment ratings show substantial correlation with two major criteria: second-level promotions and demotions from first-line management.

Examining the data on 254 managers of Standard Oil of Ohio who were assessed, Mitchel (1975) found that the multiple correlations gathered from assessment results produced increasing validity coefficients over time. His results suggest that, if possible, collection of criterion measures should be delayed when conducting a validation study.

Hinrichs (1969) discovered that, in a two-day assessment center held for 47 members of a large national marketing organization, a careful evaluation of personnel records and employment history provided much of the same information which evolved from the assessment center with the exception of critical interpersonal behavior. This finding is of particular importance when assessing those who have an employment history and have been with the organization for some time:
On the other hand, if the focus is on the early identification of potential where little job history has accrued, then the assessment center is probably a very effective means of synthesizing a rather close approximation to the type of potential prediction which would eventually evolve through on-the-job performance. And, . . . there are numerous other potential benefits which can be derived from such a program among relatively young pre-management candidates. (Hinrichs, 1969, p. 431)

Thus, as Wilson and Tatge (1973) concluded, the decision to conduct an assessment center must be based on the personnel choices to be made and on consideration of whether or not the assessment center can make a significantly greater contribution to the selection decision than can more economical traditional methods.

A central issue in the validity question is that of the criterion against which assessment results are compared. These criteria range from supervisory ratings, promotions, and salary to observation by trained and independent auditors. There is growing criticism of the use of supervisory ratings as the criteria for assessment results. This criticism seems to focus on the subjective nature of such ratings. Bray and Campbell (1968) reported on a pure research study in which assessment center judgments were compared with job performance approximately six months later as evaluated by a specially appointed observational team. Assessment results were strongly related to this criterion, but supervisors' and trainers' ratings were not significantly related to the job performance criterion nor to the assessment center results. Bray and Moses (1972)
reported similar findings: "This study and others, as well as more theoretical analyses, cast further doubt on the already questionable reliance on supervisory ratings as a useful criterion" (p. 568).

Similarly, Alexander, Buck, and McCarthy (1975) in a study of the Federal Aviation Administration compared assessment center scores with supervisory ratings on the same dimensions and reported a correlation coefficient of .23. Only 19 percent of those ranked highest by supervisory ratings were also ranked high by the assessment center. A Chi Square test showed that no more than 40 percent of those selected by one method would have been selected by the other (.05 level of significance). They noted that the assessment center provided more discrimination among candidates than did the supervisory ratings.

There is great need for additional validity studies on the assessment center. Such variables as the length of the center, sequence of exercises, intercompany vs. intracompany centers, the composition of groups of assessor and assesseses should be considered. However, the assessment center method has at present considerable face validity. It appears to be more effective than the usual employment appraisal procedures for several reasons. Blumenfeld (1971) summarized these reasons as follows: (a) All participants have an equal opportunity to display their talents; (b) all are seen under similar conditions and in situations designed to bring out the particular
skills and abilities needed for the relevant position; and (c) all are evaluated by a team of trained assessors, unbiased by past association, who are very familiar with the position requirements. Thus, the validity studies (summarized in Table 1), the face validity of the method, and a successful court test which will be discussed later lead the researcher to expect increased use of the assessment center method.

As was stated in Chapter 1, the impetus for acceptance of the assessment center method comes in part from pressure to comply with EEOC guidelines. Consequently, there is increasing interest in the validity of assessment centers relative to the selection of minorities and women. While much more research needs to be done in this critical area, some of the present findings deserve mention. In 1973, Huck reported that "the assessment process [at Michigan Bell] tends to produce similar validities for males and females, whites and blacks, non-college and college graduates, as well as lower and middle-level management positions" (p. 6). Similarly, Huck and Bray (1976) found no significant difference between black and white subjects in correlations of the overall assessment center rating with overall job performance or potential for advancement. Both black and white subjects who were rated high in the assessment center showed high potential for promotion and exemplary job performance with almost four times the frequency of those who were
**Table 1**

A Summary of Research Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Main Objective</th>
<th>Location</th>
<th>Assessors</th>
<th>Groups Studied</th>
<th>N</th>
<th>Criteria</th>
</tr>
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<tr>
<td>Bray &amp; Grant</td>
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<td>psychologists</td>
<td>young managers, college sample noncollege sample</td>
<td>123</td>
<td>progress in management</td>
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<tr>
<td>1966</td>
<td>gram, Manage-</td>
<td></td>
<td>and a few managers</td>
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<td>Management</td>
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<td></td>
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<td>job performance; potential for advancement</td>
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<td>program</td>
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<td>AT&amp;T</td>
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<td>job performance</td>
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<td>program</td>
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<td>Study</td>
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<td>Location</td>
<td>Assessors</td>
<td>Groups Studied</td>
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<td>increase in managerial responsibility after 3 years</td>
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<td>general</td>
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<td>job performance ratings</td>
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<td>Tractor Co.</td>
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<td>foremen</td>
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<td>Standard Oil</td>
<td>psychologists and</td>
<td>managerial candidates</td>
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<td>ratings:</td>
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<td>(Ohio)</td>
<td>managers</td>
<td></td>
<td></td>
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<td></td>
<td>c. salary and promotion progress</td>
</tr>
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<td>Standard Oil</td>
<td>psychologists and</td>
<td>managerial candidates</td>
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<td>managers</td>
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<td>a. 12 traits</td>
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<td>Study</td>
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<td>Groups studied</td>
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<td>managerial trainees</td>
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<td>progress in management</td>
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Table 1--continued

<table>
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<th>Groups studied</th>
<th>N</th>
<th>Criteria</th>
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<td>IBM managers</td>
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<td>progress in management</td>
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<td>first-level</td>
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<td>ratings of present job</td>
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<td>manufacturing</td>
<td>supervisors</td>
<td></td>
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<td>performance</td>
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<tr>
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<td>research</td>
<td>AT&amp;T managers</td>
<td>short-service,</td>
<td>85</td>
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<td>assessment center</td>
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<td></td>
<td></td>
<td>nonmanagement</td>
<td></td>
<td></td>
<td>performance</td>
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</tbody>
</table>

Note. From Cohen, Moses, and Byham, 1974.
rated low during assessment. They concluded that:

In addition to its strong appeal for general selection purposes, the assessment center method is especially attractive for affirmative action such as the accelerated advancement of minority groups and women. A major attraction is the validity of the method which substantially increases the likelihood that those advanced will do well on the job, thus enhancing further affirmative action. . . . The assessment center method appears to be highly useful in providing opportunity to the most capable in an unbiased manner. (Huck & Bray, 1976, p. 29)

A similar finding was reported by Boehm (1972) who reviewed 13 research studies dealing with black-white differences and similarities in the validity of employment and selection procedures. He stated that differential validity, that is, a significant difference between the correlation coefficient of a selection device and a criterion for one of the groups, was a "rare occurrence" (p. 38).

A key question in the immediate future will be: "How do the courts regard the validity of the assessment center method?"

Though this question certainly will be answered case by case, the first court test of the assessment center method provided some insight into possible future decisions. The first court test (March, 1976) upheld the assessment center method. The case involved the city of Omaha and three policemen who had participated in an assessment center for the purpose of evaluating individuals for the Deputy Police Chief position. Byham (1976) summarized the decision:

Great reliance was placed by the court on the "Ethical
Standards for Conduct of Assessment Centers" which were adopted by the Third International Congress on the Assessment Center Method. Based on those standards it was felt that the Omaha assessment center met or surpassed minimal standards. Everyone concerned with the case admitted that there were better ways of dealing with many of the aspects of the assessment center than those used, but given the practical restraints under which the city was operating, it was as good as they could do and certainly better than a paper and pencil test or panel interview. (p. 2)

Since that time, the EEOC has enlisted the consultant help of Development Dimensions, Inc., one of the leading consulting firms specializing in assessment centers, to operate an assessment center for the purpose of selecting officers at EEOC (Dahl, 1977).

The question of the reliability of assessment center ratings is a continuing one. Due to the nature of the assessment (multiple exercises observed by multiple assessors) the most frequent issue is one of interrater reliability, and this in turn leads to consideration of the role and training of assessors. Greenwood and McNamara (1967), in a study of IBM assessment, concluded that "reasonable" interrater reliability was obtained in the situational tests used to assess potential for advancement. The median of the 432 reliability coefficients computed for ratings was .74, and for rankings .76. When the interrater reliabilities were computed separately for psychologist assessors and line manager assessors, no consistent differences in degree of agreement between pairs of psychologists, pairs of line managers, or of line manager/
psychologists pairs were found. Thomson (1969, 1970) reported similar findings in the Sohio program with interrater reliabilities ranging from .78 to .95 with substantial agreement between psychologist and manager ratings.

Hinrichs and Haanpera (1976) reported "fair" reliability obtained from the overall assessment rating. Further, they reported inadequate reliability on individual components which they contended were important in assisting participants in making development decisions.

Once again, as with validity measures, there is need for further research on the reliability of assessment ratings. Dunnette (1967) referred to Ghiselli's (1963) research on predictability which:

... shows that people are differentially reliable. ... The old model that accepted the person as a given and holds that the test is either reliable or unreliable has much to be desired. We should be looking at the reliability of people and the reliability of the situational components over time and trying to wrap up the complexity into one conceptual package. (p. 97)

While there is a need for further research on reliability, there does seem to be general agreement, as reported earlier, that psychologist assessors do not obtain significantly different results than line-manager assessors (Byham & Pentecost, 1970; Greenwood & McNamara, 1967; Jaffee, 1966; Thomson, 1969, 1970). This is an important factor when one considers the cost and feasibility of staffing assessment centers with psychologists.
The use of several observers or assessors in an assessment center raises the question of how their observations and ratings can best be synthesized into a single manageable statement. It is common practice for the assessors to discuss all the ratings in connection with the behavioral observations they represent and to seek consensus about the overall ratings to be given the candidates. If consensus cannot be reached, minority opinions are reported in the detailed assessment feedback. There has been some question as to whether arithmetic averaging of ratings is a more effective way to reach the overall rating. Wollowick and McNamara (1969) in an IBM study found that the overall rating based on staff discussion and consensus correlated .37 with the criterion of increased managerial responsibility. On the other hand, the multiple R based on predictors that were reached statistically rather than by discussion correlated .62 with the criterion. Mitchel (1975) warned against the adoption of statistical combination of ratings due to the relatively small samples on which the IBM study were based and on the fact that these findings have not been cross-validated.

Of major concern in the design of an assessment center is the choice of variables (dimensions) to be rated. Howard (1974) reported a range of from 10 to 52 variables rated by assessment staffs. The problem of redundancy among so many variables arises. Dunnette (1971) summarized the factor analytic studies done by
AT&T, SOHIO, IBM, and Sears and reported the following broad dimensions common to each: planning and organizing, interpersonal control, general effectiveness, and level of activity. Many assessment centers continue to rate larger numbers of variables despite redundancy among them. MacKinnon (1975) supported this practice:

"This seems to me not a bad strategy, for it forces staff members to strive for differentiated perceptions of their assesses' behavior. If, as is the case, the conceptualized dimensions can be observed and rated with high inter-rater agreement—a spread of ratings greater than one step is infrequent—meaningful distinctions are being made which may be clinically if not statistically justified. (p. 16)"

Closely related to the decision of which dimensions should be rated is the choice of exercises or simulations in which the desired behavior can be observed. This follows consideration of which of the dimensions can be adequately assessed on the person's current job (Byham, 1970).

Though the question of which procedure will allow adequate observation of each rating factor must be answered separately for each assessment center, Bray et al. (1974), after analysis of the Management Progress Study, reported the following relationships:

<table>
<thead>
<tr>
<th>In-Basket</th>
<th>Administrative Skills</th>
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<tr>
<td>Group Exercises</td>
<td>Interpersonal Skills</td>
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<td>Ability Tests</td>
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<td>Simulations</td>
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<td>Projective Tests and Interviews</td>
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<td>Projective Tests and Interviews</td>
<td>Career Orientation</td>
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<td>Projective Tests</td>
<td>Dependency on Others</td>
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</tbody>
</table>
Group Exercises and In-Basket were the procedures which contributed most significantly to the overall staff prediction of management potential. Though projectives were used in the Management Progress Study, they were subsequently eliminated from assessment procedures throughout the Bell System because their contribution to assessment did not warrant the professional expertise they demanded (Bray et al., 1974).

The exercises vary in importance in each center, but the In-Basket is prominent in most centers. In this procedure the candidate must respond to numerous memos and letters and later report the reasons for each response in writing. The candidate is told not to play a role but to be himself.¹ He is not to say what he would do, but he is to do it. Frederiksen (1962), who has done extensive research on this procedure, described eight primary factors which can be measured by the In-Basket: (a) acting in compliance with suggestions, (b) preparing for action by becoming informed, (c) concern with public relations, (d) procrastination, (e) concern with superiors, (f) informality, (g) directing subordinates, and (h) discussing. Though there is not extensive validity research on the procedure, it does have high face validity among managers (Meyer, 1970). As a

¹Because the literature related to this study uses the masculine pronoun almost exclusively, the researcher chose to use the same for the reader's ease.
study by Meyer indicated, "the performance style that one exhibits in handling carefully selected but true-to-life In-Basket items does correlate with demonstrated on-the-job performance of a managerial position, especially the ability to handle the planning and administrative aspects of the job" (p. 307). Clarkson and Simon (1960) pointed out one advantage of this and other simulations which lie in the generation of a stream of complex behavior which can be compared with the model behavior. The emphasis is on job sampling rather than test behavior.

Several incidental benefits of the assessment center for both assessees and assessors were reported in the literature (Byham, 1970, 1971; Campbell and Bray, 1967; Kraut, 1972; Meyer, 1970; Slevin, 1972). Byham (1970) listed the following indirect benefits: (a) candidate training, (b) positive influence on morale and job expectations, (c) programs regarded by candidates as fair and realistic, (d) assessor training, and (e) company forced to resolve issues of job goals. Elaborating on assessor training, Byham (1971) noted several possible benefits: (a) improved interviewing and observational skills, (b) new insights into behavior and normative standards by which to evaluate performance, (c) building of a more precise descriptive vocabulary, and (d) broader repertory of responses to problems. MacKinnon (1975) cautioned against the ready acceptance of these benefits:
All of these seem likely hypotheses about the possible benefits that serving as an assessor may have upon a manager's own behavior. But until the assessors themselves are assessed, and until their subsequent records as managers are compared with that of matched samples of managers who have not served as assessors, they will remain only what they are today—namely, hypotheses. (p. 23)

Similarly, the positive testimony of most assessees reported by Kraut (1972) and Campbell and Bray (1967) is encouraging but does not allow for sweeping conclusions.

Just as research evidence is lacking for claims of incidental benefits of the assessment center, so too is evidence lacking which would substantiate critical charges directed at the procedure. Concerns include the fear that the assessment center rejects the nonconformist, independent thinker in favor of the "organization man."

Small studies at Standard Oil of Ohio (Carleton, 1970) and at IBM (Dodd, 1970) do not support this fear. This does, however, raise the issue of how assessees come to the assessment center—by whom are they nominated? Cost factors encourage nomination by managers, though self-nomination has distinct advantages and is the rule for Michigan Bell and others.

Another concern is known as the "crown prince" effect—those rated high in assessment are promoted regardless of whether their performance on the job justifies advancement. This fear makes the careful use of assessment feedback by management particularly
important. The obverse of this, the "kiss of death" effect, relates to the fear that those who do not receive high assessment ratings will be permanently barred from advancement, suffer a lowering of morale and motivation, and possibly leave the organization. Though it has been shown that those who were promoted despite low assessment ratings did tend to get the less demanding assignments (Bray et al., 1974), there is no evidence to show a lowering of morale or motivation among the less successful assessees. Kraut and Scott (1972) discovered that the percentage of low-rated and high-rated employees who left the company did not differ significantly. Thus, there is no evidence at this time that the assessment center leads to a loss of well-trained, adequately performing employees.

There is evidence that wide acceptance of the assessment center method has led to a broadening of its use beyond managerial selection in industry, government, and the military (D'Arcy, 1974; Hamilton & Gavin, 1974; MacKinnon, 1975). The AT&T Early Identification Assessment (EIA) Program (Moses, 1973) and the Sears Multiple Assessment Program (Bentz, 1972) are examples of the use of assessment in direct conjunction with development programs which are also consistent with affirmative action. Though the primary focus of most assessment centers seems to be selection, the development and training potential of this tool is very evident in the literature (Bray, 1975; Cohen, 1974; Shankster & Cordea, 1976).
Use of the assessment center as a development tool demands an increased emphasis on the counseling process in feedback sessions. Critiques of performance through videotapes, behavioral modeling, and jointly constructed development plans are used to enhance this process (Cohen, 1974). Taylor (1962) described a development formula which could guide the use of the assessment center as a training tool. It may be summarized as follows: That which leadership requires minus the requirements the candidate already meets leaves the candidate's development needs. Out of this are identified needs which can be developed by training and those which are not subject to training in order to reach a statement of the candidate's practicable development needs. Going one step further, Steiner (1975) proposed that the assessment center be used as an evaluative tool for training and development programs.

The assessment center has also been used for selection and development of persons for craft-level and technical positions (Thigpen, 1976). Thoresen and Jaffee (1973) reported on the use of the method with blue collar workers in a small, highly automated chemical plant. An attempt was made to build an "enriched" working environment where there would be much job rotation and where teamwork would be essential. The best possible selection of new hires was critical to the success of this operation, and the decision to hold an assessment center was made. Unfortunately, this application
of the assessment center was not a controlled study.

Cohen (1975) hypothesized that the assessment center could be effectively used as an organization development tool. He suggested that the assessment center might be a way to try and change the prevailing appraisal atmosphere from one between judge and defendant to one between collaborators working to achieve a mutual goal. No published research is available on this application at present.

An innovative application of the assessment center concept has been made by Alverno College, a Catholic college in Milwaukee (Laacher, 1974). Their program, called Liberal Learning in a Management Context, involves the student in acquiring the following eight competencies: (a) communication skills, (b) analytic capabilities, (c) problem-solving skills, (d) making independent value judgments and decisions, (e) social interaction skills, (f) understanding the relationship between the individual and the environment, (g) understanding of the contemporary world, and (h) knowledge and understanding of and responsiveness to the arts and humanities.

MacKinnon (1975) aptly summarized the process involved in assessing these competencies:

> For each competence, six levels of skill are delineated and the student is supplied with detailed information as to what is expected at each level. For graduation a student must demonstrate that she has achieved the top level, 6, in at least one competence, level 5 in six others, and level 4 in the eighth competence. Competence may be evaluated by classroom performance, but
more typically is assessed by a team consisting of a faculty member, a business or professional person from the Milwaukee community, an alumna, and an advanced student, who are trained for their roles as assessors. A variety of group procedures, suitable for four to six students, are employed to test the level of competence achieved by the students. Although courses are offered, credit toward graduation is not acquired by the passing of a required number of courses, but by mastering the eight competencies. (p. 30)

Studies reporting use of the assessment center in the public sector in education are scarce. Though a district order in 1976 specified the use of the assessment center as the approved selection device for elementary and junior high principals and secondary assistant principals in New York City, later budgetary cuts prohibited the installment of the program. Deluzain and Cohen (1976) reported a pilot assessment center program designed for early identification of potential principals and assistant principals. The program, undertaken by a shared services consortium of nine school districts in the predominantly rural northwest Florida panhandle, was funded with monies authorized by the Florida Educational Leadership Training Act. The center, designed to measure behavior related to 16 dimensions, used typical assessment exercises such as the interview, group discussion, and In-Basket. The results provided selection ratings as well as developmental recommendations for each candidate. Deluzain and Cohen (1976) encouraged validation of the education assessment model and, though they reported favorable
reaction to the process, warned against use of the method without careful dimension analysis and planning.

From the studies reviewed here it is apparent that further research on almost every aspect of the assessment center would benefit our understanding and further application of the method. As was stated earlier, controlled personnel research is not easily accomplished. Bray and Moses (1972) commented on this problem: "The researcher must have good control of the employment and training process to produce a sound study, and unfortunately, not all personnel psychologists have sufficient influence in their organizations to guarantee this" (p. 550). Perhaps a more basic problem related to research on assessment centers has to do with the broader fields of personnel and industrial psychology. The problem, of concern to Baxter (1965) and MacKinney (1967), was succinctly stated by Guion and Gottier (1965):

It must be admitted that industrial psychology lacks a general theory of work; it lacks a more specific theory of the relationship of motivational constructs to the behavior of an individual at his job; and it lacks even a substantial body of research explicitly aimed toward the development of such theories. In this vacuum, it is no wonder that raw empiricism is still an essential ingredient of practical personnel research. If the problem lies in the lack of relevance of existing theories, then the solution must surely be in the design of research that will lead to a relevant theory. (p. 158)

The major applications of the assessment center method have taken place in industry and government as this review of research
has indicated. However, in light of the research problem presented in Chapter I, the research on the selection procedures operative in the choice of school principals must be studied. Accordingly, a review of such research follows.

The Selection of School Principals

English and Zahares (1972) proposed that the role of the principal be examined in its organizational context. They emphasized that the principal has great impact on the establishment of a school's climate, on the determination of the degree of school/system harmony, and on the arbitration of conflicts that arise. Thus the principal has a major leadership function. Critical of the principal selection process, English and Zahares (1972) contended that "not only are principals selected on non-creative or anti-creative criteria, but they are evaluated and rewarded for non-creative and anti-creative behavior" (p. 5).

Considering the importance of the role of the principal as an educational leader, there is comparatively (to industrial management) little research on the selection of the principal. Though the issue of selection is only very slowly being addressed, it is encouraging to note that the focus of the available research is on the criterion for selection. The establishment of criteria will hopefully provide a sound basis for the selection process. McIntyre, as early as 1966,
called for specification of the job variables in order that the candidate's behavior could be matched with the job and situational variables. Again in 1974, he urged a more systematic approach to selection based on job-relevant factors instead of an approach he labeled GASing (Getting the Attention of Superiors), "an informal process by which promotions within a school system were often dependent on behavior almost totally unrelated to competency in the principalship" (p. 30).

Reviewing the customary selection tools, interviewing, letters of recommendations, and rating scales, McIntyre (1974) stated:

Interviewing can be of some value in selecting personnel, but we should realize that our impressions from interviews are wrong about as often as they are right. . . . Our studies show that predictions about people are only slightly, if any, more accurate with letters of recommendation than without them. Rating scales usually have equally doubtful value, for many reasons. . . . It is a truism in the selection business that the best evidence of one's future behavior in a given situation is his present and past behavior in similar situations. This truism should tell us that before we start to recruit and select an individual, we must decide what situation we have in mind and what behaviors we want in that situation. (p. 33)

McIntyre (1966) did not suggest abandonment of traditional selection procedures as much as cautious and discriminating use of them in conjunction with situational performance tests.

Similarly, Erickson (1963) emphasized that administrative behavior should be conceived of as multidimensional and situational,
Referring to Hemphill's study of 232 elementary principals which identified eight factors of administrative behavior, he urged a "new standard of specificity" and recognition that identification of factors is just the beginning of much necessary research in this area.

A United States Office of Education (USOE) study (1967) recognized the gap which exists between existing practices in the selection of principals and desirable professional standards. Pointing out the inadequacies of a selection process based on the trait theory, it urged school districts to establish written performance criteria that take into account the situational needs of a particular school. Furthermore, it suggested that the principalship might more realistically be seen as a cluster of functions which are best accomplished through the efforts of many supervisors rather than only one person. Specifically, it was recommended that if the interview is to be retained as a selection tool, that orientation and training sessions be held to equip interviewers with skills and understanding necessary to make the interview a valuable tool in the selection process. In summary:

The challenge is to separate the outstanding from the ordinary or incompetent by using predetermined criteria as guidelines. There is the further task of translating criteria into an action program. Instruments must be fashioned or procured that are capable of giving readings on how closely the candidates' predicted behavior will be consistent with the criteria. . . . The primary purpose of selection devices or instruments is to yield information on predictor variables pertinent to a decision as to who shall be chosen principal. (p. 34)
Some examples of attempts to deal with the selection problem in ways consistent with the previous recommendations are worth mention. One of these involves the New York City school system which was forced to take action following the Mansfield case (July, 1971) which held that "the examinations prepared and administered by the Board of Examiners for the licensing of supervisory personnel, such as Principals and Assistant Principals, have the de facto effect of discriminating significantly and substantially against Black and Puerto Rican applicants." Though the school system's plan to operate an assessment center for selection purposes was aborted due to budgetary cuts, there have been efforts made by the Public Education Association, a nonprofit private organization committed to improvement of public education in New York City, to develop a selection procedure which is job-related and objective (Seeley, 1971). A thorough job analysis and weighting procedure was undertaken as the first step in this process.

Teitelbaum (1972) reported efforts to develop selection criteria for the selection of inner city elementary school principals using New York City as a prototype. These efforts included a study in which professional educators and lay community representatives were asked to indicate the five most important personal characteristics and the five most important professional characteristics which should be considered in the selection of elementary school principals.
Results showed statistically significant agreement concerning the rank order of important selection characteristics by professional and lay groups.

Briner (1960) discussed a study done at Stanford University in which selection criteria related to physical and character image, levels of professional and personal potential, and levels of professional and nonprofessional competence were stated in behavioral terms. Briner (1960), commenting on the research, stated:

While the research itself does not provide any answers to these problems, there would appear to be several techniques which superintendents might employ to avoid the fallacy of the stereotypic image. First, the superintendent might make explicit the qualities which he considers essential to administrative effectiveness. Having done so, he might ask himself, "What evidence is there to support the belief that these qualities are indeed important?" Moreover, he might well ask himself, "Can I really determine the extent to which candidates possess certain qualities, or am I merely relying on superficial indications?" (no pages cited)

Briner's use of the word "qualities" seems inconsistent with the behavioral focus of the study, but the questions he posed certainly ought to be asked.

A five phase selection and development program in Dallas was described by McIntyre (1974). The plan called for initial identification of candidates for administrative positions through extensive publicity and appeal to many sources of recommendations. The next phase included the selection of a relatively large (in proportion to
immediately available positions) group of candidates for training and further screening. Training and screening consisted largely of simulation and laboratory exercises. The third phase involved on-the-job experience as an acting principal in a six-week summer school. A comprehensive summer seminar on school administration comprised the fourth phase, with the final phase being a one-year internship consisting of direct administrative experience in an elementary school, a secondary school, a school system central office, and a community agency. There is no published research data on the effectiveness of this program.

A somewhat similar model is used in a cooperative selection and development program operated by the Center for the Study of Administration in Education at the University of British Columbia and the school board of Kamloops, British Columbia. Bruce (1976) recommended such joint efforts stating that "education is too vital a process to allow a casual approach to the selection of such leaders" (p. 37).

The issue of recruitment, though not the central concern of this research, has serious implications for improved selection of principals. Wagstaff and Spillman (1974) expressed concern at the lack of systematic, effective recruitment for school leadership positions. They noted that principalships are usually filled as a result of self-selection from the teaching ranks, meeting degree
requirements, attaining certification, and/or finding favor in the central office. McIntyre (1966), likewise, expressed alarm with present recruiting practices:

In fact, inadequate recruitment might well be the progenitor of many of our most serious selection difficulties. The talent pool from which school administrators are drawn is restricted almost entirely to the teaching profession—a restriction that tends to exclude larger numbers of potentially strong candidates who, for many conceivable reasons, have never heard the call of the teaching metier. (p. 3)

Another issue, secondary but related to the research problem stated in Chapter I, is "Who will select the principal?" At the present time this task usually falls to the superintendent, but Hawkins (1969) suggested that the problem of selection may be complicated in the future by teacher unions and community groups demanding more voice in the process.

The need for extensive and controlled research on the selection of principals is obvious. Though there are some indications that job-related criterion and situational performance testing are being tried experimentally, there is no evidence that serious tests of these measures are being conducted.

This chapter focused on the research on the assessment center method in industry and government and on the research related to the selection of school principals. The following chapter discusses the research design and procedures used in this investigation.
CHAPTER III

RESEARCH METHODOLOGY

The method and procedures used in this study are presented here in four sections: (a) Review of the Problem, (b) The Case Study, (c) Procedures, and (d) Framework for Analysis.

Review of the Problem

The purpose of this investigation was to describe the development and pilot operation of an assessment center used by a large (Fortune 500, 1976) company for the purpose of management selection and development and to draw implications for the use of the assessment center method in the selection of school principals. The study included analysis of the data obtained by interviews of key persons responsible for development of the assessment center and the data gathered by participant observation of the pilot assessment center.

The Case Study

The case study method was chosen for this investigation. As stated in Chapter I, this method is particularly appropriate when the aims of research are "understanding, extension of experience, and
increase in conviction in that which is known" (Stake, 1977, p. 4).

Lofland (1971) discussed the value of such a qualitative study stating:

The bedrock of human understanding is face-to-face contact. Statistical [research] serves to amplify and to check on the representativeness, frequency and correlation of the knowing that is founded on that bedrock. Quantitative studies serve primarily to firm up and modify knowledge first gained in a fundamentally qualitative fashion. (p. 6)

Every attempt was made to meet the criteria which Lofland established for such qualitative studies: (a) closeness, that is, physical proximity in time and place to the event, and a sense of rapport and confidentiality; (b) factual reporting; (c) a significant amount of pure description of people, activities, and events; (d) a report which captures the reality of the situation and which contains direct quotations; and (e) a report which strives for scientific ordering and articulate abstraction.

The setting for this study was the corporate Employee Development unit of a large, highly technical company which employs 18,000 people. As a corporate unit, Employee Development serves the personnel development needs of the entire company and its subsidiaries nationally. Though some of the unit's programs and services are adopted by the company as a whole, others are available upon request and may be chosen independently by various segments of the company. Thus, programs and procedures developed and staffed by this unit are not necessarily adopted by the entire company. Such
was the case for the assessment center method described in this study.

The researcher's association with the company and with the Employee Development unit began in May 1977 when she was interviewed prior to beginning an internship there during the summer of 1977. The internship period gave the researcher the opportunity to become familiar with the organizational structure of the company, its management philosophy, its personnel policies, and employee development efforts. The internship responsibilities, which included the analysis of a management needs assessment survey, provided the opportunity for the researcher to discuss with members of management from all levels their concerns and needs. Furthermore, during the internship, the researcher was able to establish a rapport with the management and staff of the unit which fostered a confidence in her work and later proved invaluable in gaining their cooperation in this research effort.

The clinical research for this study was conducted between October 1, 1977, and April 25, 1978. During that time the researcher held several interviews and participated in planning sessions, assessor training, and the pilot assessment center. The researcher's involvement was with the management and staff of the Employee Development unit and the management of the division for whom the assessment center was conducted. To the Employee Development
management and staff, the writer's role as a researcher was known, whereas to the persons from the division in which the pilot was held, the researcher was seen primarily as coadministrator of the assessment center. The reasons for this difference will be discussed in the following section.

Procedures

The data gathering procedures for this study included interviewing and participant observation. Inquiry related to questions of development, use, and the relationship of the assessment center to the organization was accomplished through interviewing. Inquiry related to questions of structure, operation, and acceptance of the method was accomplished through participant observation.

The nature of the questions to be answered about the assessment center (development, use, relationship to the organization) and the rapport previously established with those interviewed allowed the researcher to conduct very frank, probing, and relatively unstructured interviews. These interviews were held with the manager of the Employee Development unit, the industrial psychologist responsible for the development and operation of the assessment center project, and the manager of the division which participated in the pilot assessment center.

Insight into the history of the assessment center project and
its relationship to managerial selection and development within the company was gained through interviews with the manager of Employee Development. Specific information regarding the key steps in the development of the assessment center, as well as valuable insight into the political considerations of securing the commitment of top management and the confidence of the employees, resulted from interviews with the industrial psychologist responsible for the project. Discussion with both the manager of Employee Development and the director of the project of what obstacles hindered development of the assessment center was beneficial to the researcher as she sought to identify possible obstacles to use of the assessment center in education. Finally, an interview with the manager of the division which chose to participate in the pilot allowed the researcher to discover why this manager chose the assessment center method of selection, what considerations were important to that decision, and specifically, how he intended to use the data gathered in the center for selection.

The core of this case study was the description of the pilot assessment center gathered through participant observation. There are many degrees of participant observation, but the description of the "active" participant observer given by Schwartz and Schwartz (1955) provided the researcher with a model of intent:

As an ideal type the "active" participant observer...
maximizes his participation with the observed in order to gather data, and attempts to integrate his role with other roles in the social situation. His activity is accepted by both himself and by the observed, as part of his role. His intention is to experience the life of the observed so that he can better observe and understand it. In some situations his behavior is similar to that of the observed; in other situations he plays complementary roles. He attempts to share the life of the observed on a simple human level as well as on a planned role level and uses both these modes of participation for research purposes. That is, while participating and identifying with the observed, he looks upon his relationship with them as data and also as clues for uncovering further data. As this continues, he becomes more of a part of, and more comfortable in, the social field. He attempts to strike that balance between active participation in the life of the subjects and observation of their behavior which will be most productive of valid data. (p. 97)

Likewise, Becker and Geer (1957) and Johoda, Deutsch, and Cook (1951) claimed that such active participation allowed the researcher to collect a wealth of information and impressions not available through interviews alone or other less personal data gathering procedures. They stated that sensitivity to the subtleties of the situation and the opportunity to engage in informal and spontaneous conversation allowed the researcher to continually raise new and different questions which could be answered in succeeding observations. This served to enrich the quality of the data.

The choice of active participant observation as a key data gathering procedure for this study raised two important questions: (a) Will the demands of active participation hinder the research activity? (b) To what extent will the presence of a new person, the
participant observer, change the research situation? Though clear-cut answers to these questions were not possible, their consideration was important. Johoda, Deutsch, and Cook (1951) offered a response to these questions which seemed appropriate to this investigation:

However, participation in the community life can actually enhance the "naturalness" of the observer's position rather than making it more artificial. There are many situations in which the observer might well be experienced as an inhibiting stranger in the situation unless he undertook a function meaningful to members of the community. Yet the importance of active participation for research is not limited to assuaging suspicions, establishing rapport, or enhancing the "naturalness" of the observer's position in the community. Its main function for research consists in opening new areas of understanding the community. . . . The observer exposes himself to experiences which give him firsthand knowledge of the more subtle pressures and counter pressures to which members of the community are exposed. His introspection about his own experiences as a participant represents one of the most fruitful means of understanding the community's characteristics. (p. 142)

The initial data gathering strategy allowed for the researcher to participate in assessor training as a trainee and to observe the pilot assessment center strictly as a passive observer. This strategy was abandoned for several reasons. First, the initial pilot assessment center was held a month earlier than expected due to a request by the division in which the pilot was to be held. Because the assessment center project was in its initiation stage in the company, the director of the project felt that it was imperative that the opportunity to hold a center be seized despite the time constraints
that this early request presented. The time constraints and pressure under which the director was operating did not allow him to spend the time with an additional trainee and observer that he felt would be necessary. Finally and perhaps most important, because this was the first center to be held in the company, the director did not want to risk lowering the "comfort level" of the participants (assessors and assessees) or their confidence in the confidentiality of the project by allowing an outsider to observe. Though the researcher was allowed to observe limited parts of this project, it was decided that in the next pilot the researcher's role would be presented to the participants and that she would be seen as an assistant to the project administrator from the beginning of assessor training and throughout the entire project. In this way it was hoped that the possibility of interference by an outside observer would be mitigated.

Framework for Analysis

The descriptions available through participant observation and interviewing provided a rich source of data for this investigation. The next step, as Lofland (1971) suggested, was to bring some scientific order to the data:

The qualitative analyst seeks to provide an explicit rendering of the structure, order, and patterns found among a set of participants. . . . Abstracting, conceptualizing, and ordering--the activities of the social scientist--are activities we carry on. . . . Through the concerted
effort self-consciously and explicitly to carry on simultaneously detailed description and careful analysis, we can hope to have even better understanding. (p. 7)

Schatzman and Strauss (1973) addressed this issue of analysis:

The discovery process and the questions raised by the researcher need not be related to any "received" or prior theory. Such theory is not necessary to inquiry in the field, except when the researcher specifically wants to test one or explore the limits of its usefulness. . . . What he [researcher] does need is some theoretical perspective or framework for gaining conceptual entry into his subject matter, and for raising relevant questions quickly. His framework need be no more elaborate than a scheme of general but grounded concepts commonly applied by his discipline. (p. 12)

Because the review of the literature did not reveal a clearly defined theory of selection or assessment, the researcher chose to use the process model of decision analysis of Kepner and Tregoe (1965) as a basic framework for analysis. This provided logical and appropriate structure for analysis because selection is basically a decision-making process. The model is based on six concepts of choice. Choice involves the selection of information, the summarization of it, the making of judgments from it, and finally the arrival at a position of belief which one believes to be the truth. The six concepts of choice are stated as follows:

1. The first concept of choice, then, is that a detailed ideal, model, or set of criteria can be specifically stated for any conceivable entity, thing, or state.

2. The second concept of choice states simply that, for any situation, alternatives of differing goodness and practicality do exist from which a selection can be made.
3. The third concept of choice . . . is that it is always possible to render some clearcut relative judgment between alternatives with regard to a specified, particular dimension or characteristic.

4. The fourth concept of choice is that man is not restricted in his thinking to the present, but may project himself and his activities forward into the future to any degree that he sees appropriate and can insert the implications he sees from that projection into his present thinking.

5. The fifth concept of choice, then, is that man can precisely reduce items of information, through summarization and judgment, to a statement of position in which he believes.

6. The sixth concept of choice states that man is capable of choosing between entities which he can see, visualize, understand and compare and does so with the deep conviction that he has discovered the truth of the matter. (Kepner & Tregoe, 1973, pp. 22-25)

A graphic representation of these concepts of choice is presented in Figure 1.

From these concepts of choice Kepner and Tregoe devised a process of decision analyses which is basically a sequence of information processing steps through which the decision maker must go in order to be able to make a reasonable selection from among the available alternatives. The steps are as follows: (a) setting out the decision statement, (b) specifying the ideal, (c) classifying and weighting the criteria, (d) stating the alternatives, (e) evaluating the alternatives, (f) projecting future consequences, and (g) making the choice. These steps will be examined in more detail and related to
1. An ideal is stated in detail.

2. Alternatives exist which approximate the ideal in some degree.

3. Relative judgments are made, each alternative versus each other, with respect to the ideal.

4. Projection is made into the future, and implications are added to present thinking.

5. A great deal of information is summarized into a position with respect to each alternative.

6. A choice is made between alternatives as to which best matches the ideal.

Figure 1. Concepts of choice. (Kepner & Tregoe, 1973, p. 25).
the assessment center method in the analysis presented in Chapter V.

In summary, this investigation was a case study of the development and pilot operation of an assessment center for the purpose of managerial selection and development in one company. Data were gathered by participant observation and interviewing. The process model of decision analysis designed by Kepner and Tregoe was used as the framework for analysis. The description and analysis made possible the drawing of implications for use of the assessment center method in the selection of school principals.
CHAPTER IV

THE CASE STUDY

This case study, which describes the development and pilot operation of an assessment center for the purpose of management selection and development, is presented in seven sections: (a) Company Philosophy, (b) History of the Project, (c) Determining the Dimensions, (d) Design of the Center, (e) Assessor Training, (f) Pilot Operation, and (g) Budget.

Company Philosophy

From the beginning of the researcher's association with this company, it was evident that any proposed innovation would have to measure favorably against the question: "Is this plan, project, or change consistent with the company philosophy?" This consideration took place at a conscious verbal level and seemed to the researcher to be an almost routine consideration. A simple statement of that philosophy, as it related to management, is summarized as follows: We believe that helping each person to become what he wants to become while achieving the organization's goals is the optimum way to manage; we want to help people achieve personal goals. Initial acceptance of the assessment center method was dependent upon the
degree to which it was consistent with this philosophy and the degree to which this could be communicated to management. Successful implementation of the method was dependent upon the degree to which participants, both management and nonmanagement, could see that the process took into consideration their goals as well as those of the organization. Because the assessment center method combines the opportunity for both selection and development, and thus offers the possibility of contributing to both organization and personal goals, it seemed highly congruent with this company's philosophy. However, in order to avoid the often negative evaluation connotations that the word "assessment" holds, the project was called Management Skills Workshop rather than Assessment Center which is primarily a generic term seldom used in practice (Byham, 1971).

History of the Project

The history of the Management Skills Workshop in this company dates back to 1972 and is best understood in terms of the rationale described by the Manager of Employee Development to the researcher. That rationale followed from the conviction that people were the most important resource of the given company. This was true not only philosophically but economically as well. People were seen as the company's largest investment, and there was evidence that economically the return on that investment was declining. Consideration was
given to the ways in which the productivity of each person could be improved, and the following questions were asked: (a) Are we optimizing the use of our capital investments? (b) Are our people adequately trained? (c) How can we increase the effectiveness of our management team? The answer to the third question related directly to the eventual development of the Management Skills Workshop. The Manager of Employee Development believed that the key to the productivity of people as a group lay in the way they were managed. Management was responsible for the setting of objectives, the designing of jobs, and the selection and training of people. It had great influence in motivating people and in setting the organizational climate. In fact, it was the key to increased productivity and to the company's ability to remain nonunion. Further, he believed that the management process could be influenced by training and selection. Various programs were developed to increase the effectiveness of management through training. In addition, one program, the Career Development Workshop, was designed primarily to help each participant formulate career objectives and prepare a development program and, secondarily, to help management identify those individuals with significant potential for advancement. It was an attempt to make persons aware of the skills that were necessary for successful management. Likewise, it was an opportunity to identify management potential, and thus to improve the selection process of first-line
supervisors.

The Career Development Workshop was developed under the guidance of an industrial psychologist from a management consulting firm. After discussion with a group of company managers, the consultant ascertained the management characteristics which were important to managers in the company. A three day workshop was designed in which candidates were observed as they participated in various group dynamics exercises, individual tests (including the In-Basket), and interviews. Managers were chosen to serve as observers (assessors) and were given two days of observer training. Each workshop was held for 12 candidates who had been chosen by management. Twelve observers (members of management who were not the immediate supervisors of the participants) had the opportunity to observe at least five different participants. The consultant psychologist and a co-administrator conducted the workshops which were held three to four times a year at a lodge which housed candidates and observers for the duration of the workshop.

A written report on each candidate who participated in a Career Development Workshop was sent to the candidate's immediate supervisor. Such a report contained a summary statement, a detailed evaluation of the 19 characteristics measured in the workshop (see Table 2) with specific examples and letter ratings (A through E). It also provided a statement of the candidate's development needs.
<table>
<thead>
<tr>
<th>1. Intelligence</th>
<th>Ability to learn and understand.</th>
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<tbody>
<tr>
<td>2. Analytical Ability</td>
<td>Ability to dig deeply into a problem, sort out the relevant data, and grasp the relationship between the parts and the whole.</td>
</tr>
<tr>
<td>3. Creativity</td>
<td>Ability to generate new ideas and develop innovative solutions.</td>
</tr>
<tr>
<td>4. Decisiveness</td>
<td>Ability to make decisions in a short time span based on available information.</td>
</tr>
<tr>
<td>5. Judgment</td>
<td>Ability to assess situations accurately and make sound decisions.</td>
</tr>
<tr>
<td>6. Emotional Maturity</td>
<td>Ability to maintain a healthy outlook and balanced behavior.</td>
</tr>
<tr>
<td>7. Enthusiasm</td>
<td>Positive attitude and cheerful approach to work responsibilities.</td>
</tr>
<tr>
<td>8. Initiative</td>
<td>Ability to get things started and make things happen.</td>
</tr>
<tr>
<td>9. Flexibility</td>
<td>Readiness to accept new inputs and change behavior.</td>
</tr>
<tr>
<td>10. Work Ethic</td>
<td>Dedication to doing the job in a conscientious, industrious, and responsible fashion.</td>
</tr>
<tr>
<td>11. Oral Communications</td>
<td>Ability to listen perceptively and speak effectively in one-on-one or group situations.</td>
</tr>
<tr>
<td>12. Written Communications</td>
<td>Ability to understand and transmit written data (both words and numbers).</td>
</tr>
</tbody>
</table>
### Table 2--continued

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>13. Leadership</strong></td>
<td>Ability to influence and motivate others.</td>
<td></td>
</tr>
<tr>
<td><strong>14. Sensitivity</strong></td>
<td>Awareness of the needs of others, insight into their behavior, and concern for their feelings.</td>
<td></td>
</tr>
<tr>
<td><strong>15. Team Player</strong></td>
<td>Willingness to work for the greater good of the group.</td>
<td></td>
</tr>
<tr>
<td><strong>16. Results Orientation</strong></td>
<td>Determination to achieve objectives.</td>
<td></td>
</tr>
<tr>
<td><strong>17. Energy</strong></td>
<td>Physical health and stamina for sustaining a high activity level.</td>
<td></td>
</tr>
<tr>
<td><strong>18. Ambition</strong></td>
<td>Desire to advance one's career and achievement level.</td>
<td></td>
</tr>
<tr>
<td><strong>19. Management Skills</strong></td>
<td>Ability to plan, organize, direct, and control; make efficient use of time and resources.</td>
<td></td>
</tr>
</tbody>
</table>

together with a proposed development program, and an estimate of the candidate's potential for advancement in the near and long term.

The report was prepared by the observer who had primary responsibility for the specific participant under consideration and was edited by the consultant. The only copy of the report, initially sent to the participant's immediate supervisor, was later transmitted up the direct chain of command to the vice president responsible for that particular unit of the company. In addition, a separate report was written by the primary observer for the participant. This report
contained a summary statement, a detailed evaluation of the 19 characteristics with specific examples but no letter ratings, a statement of the development needs, together with a proposed development program. The participant, after receiving his report, was to propose a development program for himself and submit it to his immediate supervisor for approval. Development plans included a wide range of opportunities: job rotation, job enlargement, university degreed and nondegreed programs, in-house workshops and seminars, out-of-company workshops and seminars, understudy assignments, personal coaching, field trips, etc. Evaluation of the Career Development Workshop took the form of rating sheets which were completed by participants and observers.

Career Development Workshops were conducted in three of approximately 25 units of the company. Two of the three units held several workshops. Though the Career Development Workshop had a basic assessment center design, it had several weaknesses: (a) The characteristics or dimensions of successful management were not "scientifically" established; (b) the two days of observer training were judged by many to be inadequate for that important task; (c) outside consultant fees ($3,500 for each workshop) and the expense of lodging participants and observers ($4,000/12 participants, 16 observers) were costly; and (d) the quality and control of feedback varied with the skill of individual observers. Thus, experience with
the Career Development Workshop and current demands of EEOC regulations led to the design of the Management Skills Workshop which was to be a more systematic and rigorous application of the assessment center method for the purpose of managerial selection and development. After consultation with six different firms which designed assessment centers or other selection tools, the decision was made to work with Development Dimensions Incorporated (DDI), a management consulting firm which specialized in designing assessment centers and had experience with the technicalities of validation and EEOC regulations.

Determining the Dimensions

The Management Skills Workshop was to be a selection and a development tool. Through it, the organization would be able to gather data which would assist in identifying individuals with management potential; and likewise, individual participants would be able to learn about the demands made on members of management and the skills necessary to be successful as a manager. The Management Skills Workshop was to assist the organization and the individual in the joint decision-making process of selection.

Once the goals of the Management Skills Workshop were defined, the first step in developing the program was the determination of those dimensions or characteristics which were considered critical.
for a successful manager in the given company. This was basically a process of job analysis. In order to facilitate this process, the company was divided into three areas: (a) Professional, (b) Sales, and (c) Production, Maintenance, Service and Office (PMS/Office).

Thus the question could be asked, "What does it take to be a successful supervisor in your part of the company?" It was found that, while a substantial base of common requirements seemed to exist throughout the company, there were different skills emphasized in supervising Professional employees, Sales employees, and PMS/Office employees. These differences will be noted later.

The job analysis was conducted in two phases: the interview phase and the survey phase. A consultant from DDI and the director of the project, an in-company industrial psychologist, conducted the interviews in the summer of 1977. Twenty-seven managers were interviewed for their views on the critical responsibilities and skills of the supervisors reporting to them in Sales, Professional, and PMS/Office areas. Those interviewed were second-level managers, that is, they were responsible for managing first-level supervisors. The interviewers began with an extensive list of skills and abilities (dimensions) which were considered important for successful management. They asked each interviewee, "What does it take to be a successful manager in your part of the company?" The interviewee was encouraged to cite critical incident anecdotes on successful and
unsuccessful performances of first-level supervisors. If an interviewee did not mention a particular dimension, for example, stress tolerance, the interviewer would ask a question such as, "What about stress on this job?" in order to get the interviewee's reaction to the importance of stress tolerance. Each interview took approximately 1 1/2 hours. The interviewers believed that they would get more information by using this informal approach than they would by using a highly structured interview schedule.

Following the interviews, the interviewers reviewed together the interview data, analyzed and categorized it according to the skills and abilities represented in the cited behaviors. For example, a statement such as, "The manager must be able to get people out of their offices and into the field; must do something other than react and put out fires," was categorized as "initiative" and as "planning and organizing." Frequency counts were made for each of the identified skills and abilities. The distribution of these frequency counts was converted to relative (%) frequency distributions within each of the three areas of first-level supervision studied. These relative frequency distributions are shown in Table 3. Dimensions with a frequency of less than 2.5 percent were not used for the survey. This percentage cutoff was arbitrary, but consistent across the three areas of the company.
<table>
<thead>
<tr>
<th></th>
<th>Professional %</th>
<th>Sales %</th>
<th>PMS/Office %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Organizing</td>
<td>10.0</td>
<td>5.6</td>
<td>13.9</td>
</tr>
<tr>
<td>Leadership</td>
<td>6.0</td>
<td>14.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Initiative</td>
<td>7.4</td>
<td>3.7</td>
<td>7.3</td>
</tr>
<tr>
<td>Attention To Detail</td>
<td>1.4</td>
<td>1.1</td>
<td>3.8</td>
</tr>
<tr>
<td>Informal Leader/Team Worker</td>
<td>3.3</td>
<td>1.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Judgment</td>
<td>12.1</td>
<td>9.0</td>
<td>9.8</td>
</tr>
<tr>
<td>Organizational Sensitivity</td>
<td>4.9</td>
<td>--</td>
<td>2.2</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>5.8</td>
<td>6.9</td>
<td>6.3</td>
</tr>
<tr>
<td>Oral Communications (+ Listening)</td>
<td>4.9</td>
<td>4.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Written Communications</td>
<td>4.1</td>
<td>2.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Stress Tolerance</td>
<td>3.0</td>
<td>2.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>2.7</td>
<td>1.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Problem Analysis</td>
<td>8.2</td>
<td>6.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Management Control</td>
<td>3.6</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Work Standards</td>
<td>4.7</td>
<td>4.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Creativity</td>
<td>2.5</td>
<td>2.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Management Identification</td>
<td>2.5</td>
<td>2.9</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Professional</td>
<td>Sales</td>
<td>PMS/Office</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Energy</td>
<td>--</td>
<td>2.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Flexibility</td>
<td>2.2</td>
<td>0.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Integrity</td>
<td>1.9</td>
<td>2.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Independence</td>
<td>1.1</td>
<td>4.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Coaching/Teaching/Development Subordinates</td>
<td>1.4</td>
<td>10.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Goal Oriented</td>
<td>--</td>
<td>1.3</td>
<td>--</td>
</tr>
<tr>
<td>Resilience</td>
<td>0.5</td>
<td>1.1</td>
<td>--</td>
</tr>
<tr>
<td>Ability To Learn</td>
<td>0.3</td>
<td>1.6</td>
<td>--</td>
</tr>
<tr>
<td>Service Orientation</td>
<td>0.3</td>
<td>--</td>
<td>1.3</td>
</tr>
<tr>
<td>Delegation</td>
<td>1.1</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Persuasiveness</td>
<td>1.4</td>
<td>0.5</td>
<td>--</td>
</tr>
<tr>
<td>Adaptability</td>
<td>1.1</td>
<td>0.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Positive Mental Attitude</td>
<td>--</td>
<td>1.1</td>
<td>--</td>
</tr>
<tr>
<td>Personal Organization</td>
<td>0.3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Motivation for Work</td>
<td>--</td>
<td>0.8</td>
<td>--</td>
</tr>
<tr>
<td>Fairness</td>
<td>--</td>
<td>0.3</td>
<td>--</td>
</tr>
<tr>
<td>Technical Translation</td>
<td>0.5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Staff Coordination</td>
<td>0.3</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

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Subsequently, a survey was conducted in order to validate these preliminary findings. The survey instrument had three variations for Professional, Sales, and PMS/Office areas. The survey included a statement of purpose and the uses to be made of it, directions, and an explanation of the rating scale. The rating sheet was accompanied by a definition of each dimension to be rated, as well as an anecdotal statement meant to clarify the meaning of each dimension. Finally, a form on which to rank order the dimensions was included. Respondents also had the opportunity to add dimensions that they thought were important. The survey was sent to all second-level managers in the three areas of the company, under a cover letter from the Vice President in charge of Employee Relations. An example of one of the surveys (Professional) is presented in Appendix A.

Of the 208 second-level managers surveyed on the characteristics
of successful supervisors, slightly more than 61 percent responded to the survey, giving their ratings on the various characteristics and ranking the characteristics in order of importance for successful management. These data provided some agreement on a basic set of characteristics believed to be necessary for successful first-level supervision of Professional employees, Sales employees, and PMS/Office employees in the company. Successful supervision in each area of the company might also have required a type of technical knowledge but such requirements were not included in this survey. The lists of characteristics which were found to be critical to the success of first-level supervisors in Professional, Sales, and PMS/Office areas of the company are found in Tables 4, 5, and 6, respectively. The characteristics are listed in the order of importance ranked by the survey respondents.

As a check on the process of determining the dimensions, and in preparation for possible scrutiny of the data at a later time, efforts were made to check the validity of the judgments made by the survey respondents. Lawshe's (1975) content validity ratio (CVR) was used. It is essentially a method of "quantifying consensus" in order to deal with the problem which Lawshe described:

When panelists or other experts make judgments, the question properly arises as to the validity of their judgments. . . . When all panelists say that the tested knowledge or skill is "essential," or when none say that it is "essential," we can have confidence that the knowledge
<table>
<thead>
<tr>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
</tr>
<tr>
<td>Planning and Organizing</td>
</tr>
<tr>
<td>Judgment</td>
</tr>
<tr>
<td>Oral Communication Skill</td>
</tr>
<tr>
<td>Sensitivity</td>
</tr>
<tr>
<td>Problem Analysis</td>
</tr>
<tr>
<td>Initiative</td>
</tr>
<tr>
<td>Management Control</td>
</tr>
<tr>
<td>Stress Tolerance</td>
</tr>
<tr>
<td>Work Standards</td>
</tr>
<tr>
<td>Decisiveness</td>
</tr>
<tr>
<td>Creativity</td>
</tr>
<tr>
<td>Written Communications</td>
</tr>
<tr>
<td>Management Identification</td>
</tr>
<tr>
<td>Informal Leadership</td>
</tr>
<tr>
<td>Organizational Sensitivity</td>
</tr>
</tbody>
</table>

The following list of characteristics were found to be critical to the success of first-level supervisors of Professional employees. The list is given in the order of importance as ranked by our managers.
Table 5

Characteristics of Successful First-Level Supervision--Sales

The following list of characteristics were found to be critical to the success of first-level supervisors of Sales employees. The list is given in the order of importance as ranked by our managers.

<table>
<thead>
<tr>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Communication Skill</td>
</tr>
<tr>
<td>Judgment</td>
</tr>
<tr>
<td>Developing Subordinates</td>
</tr>
<tr>
<td>Planning and Organizing</td>
</tr>
<tr>
<td>Initiative</td>
</tr>
<tr>
<td>Sensitivity</td>
</tr>
<tr>
<td>Work Standards</td>
</tr>
<tr>
<td>Problem Analysis</td>
</tr>
<tr>
<td>Management Control</td>
</tr>
<tr>
<td>Management Identification</td>
</tr>
<tr>
<td>Stress Tolerance</td>
</tr>
<tr>
<td>Independence</td>
</tr>
</tbody>
</table>
The following list of characteristics were found to be critical to the success of first-level supervisors of PMS/Office employees. The list is given in the order of importance as ranked by our managers.

<table>
<thead>
<tr>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
</tr>
<tr>
<td>Oral Communication Skill</td>
</tr>
<tr>
<td>Planning and Organizing</td>
</tr>
<tr>
<td>Initiative</td>
</tr>
<tr>
<td>Judgment</td>
</tr>
<tr>
<td>Problem Analysis</td>
</tr>
<tr>
<td>Decisiveness</td>
</tr>
<tr>
<td>Sensitivity</td>
</tr>
<tr>
<td>Management Control</td>
</tr>
<tr>
<td>Stress Tolerance</td>
</tr>
<tr>
<td>Work Standards</td>
</tr>
</tbody>
</table>
or skill is or is not truly essential, as the case might be. It is when the strength of the consensus moves from unity and approaches fifty-fifty that problems arise. (p. 567)

Thus the CVR formula, \( \text{CVR} = \frac{r_e - N_z}{N_z} \), where \( r_e \) is the number of respondents indicating "essential" or "absolutely essential," and \( N \) is the total number of respondents, was used. Thus a CVR of .80 would indicate the proportion of raters who agree that a particular dimension is "essential." The CVR for each of the dimensions are presented in Tables 7, 8, and 9.

Results of the survey were reported to management via a company publication. Managers were encouraged to apply the appropriate list of characteristics in appointing new first-level supervisors in their area of responsibility. Two principles were stated which should guide the application of these characteristics in supervisory appointments:

1. **Behavior examples** should be identified—through interview, performance review or references—to determine the presence or absence of a characteristic.

2. **Each** candidate should be evaluated and compared to other candidates on **each** characteristic.

Further, in this same report, the Management Skills Workshop was introduced to management as a new Employee Development program which would give employees a greater awareness of the nature of supervisory work, and at the same time, give management supplementary information on the managerial capabilities of supervisory candidates.
Table 7
Effective First-Level Supervision--Professional

<table>
<thead>
<tr>
<th>Characteristics, ranked by importance to success</th>
<th>CVR: Content Validity Ratio*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>1.00</td>
</tr>
<tr>
<td>Planning and Organizing</td>
<td>.84</td>
</tr>
<tr>
<td>Judgment</td>
<td>.95</td>
</tr>
<tr>
<td>Oral Communication Skill</td>
<td>.95</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>.84</td>
</tr>
<tr>
<td>Problem Analysis</td>
<td>.89</td>
</tr>
<tr>
<td>Initiative</td>
<td>.84</td>
</tr>
<tr>
<td>Management Control</td>
<td>.78</td>
</tr>
<tr>
<td>Stress Tolerance</td>
<td>.78</td>
</tr>
<tr>
<td>Work Standards</td>
<td>.68</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>.84</td>
</tr>
<tr>
<td>Creativity</td>
<td>.78</td>
</tr>
<tr>
<td>Written Communications</td>
<td>.84</td>
</tr>
<tr>
<td>Management Identification</td>
<td>.57</td>
</tr>
<tr>
<td>Informal Leadership</td>
<td>.51</td>
</tr>
<tr>
<td>Organizational Sensitivity</td>
<td>.46</td>
</tr>
</tbody>
</table>

* With n = 37, all values exceeding .31 are statistically significant at the .05 level.
Table 8

Effective First-Level Supervision--Sales

<table>
<thead>
<tr>
<th>Characteristics, ranked by importance to success</th>
<th>CVR: Content Validity Ratio*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>1.00</td>
</tr>
<tr>
<td>Oral Communication Skill</td>
<td>1.00</td>
</tr>
<tr>
<td>Judgment</td>
<td>.93</td>
</tr>
<tr>
<td>Developing Subordinates</td>
<td>1.00</td>
</tr>
<tr>
<td>Planning and Organizing</td>
<td>.86</td>
</tr>
<tr>
<td>Initiative</td>
<td>.93</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>1.00</td>
</tr>
<tr>
<td>Work Standards</td>
<td>1.00</td>
</tr>
<tr>
<td>Problem Analysis</td>
<td>.72</td>
</tr>
<tr>
<td>Management Control</td>
<td>.86</td>
</tr>
<tr>
<td>Management Identification</td>
<td>.86</td>
</tr>
<tr>
<td>Stress Tolerance</td>
<td>.86</td>
</tr>
<tr>
<td>Independence</td>
<td>.59</td>
</tr>
</tbody>
</table>

* With n = 29, all values exceeding .33 are statistically significant at the .05 level.
Table 9

Effective First-Level Supervision--PMS/Office

<table>
<thead>
<tr>
<th>Characteristics, ranked by importance to success</th>
<th>CVR: Content Validity Ratio*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>.93</td>
</tr>
<tr>
<td>Oral Communication Skill</td>
<td>1.00</td>
</tr>
<tr>
<td>Planning and Organizing</td>
<td>.97</td>
</tr>
<tr>
<td>Initiative</td>
<td>.87</td>
</tr>
<tr>
<td>Judgment</td>
<td>.90</td>
</tr>
<tr>
<td>Problem Analysis</td>
<td>.77</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>.80</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>.70</td>
</tr>
<tr>
<td>Management Control</td>
<td>.77</td>
</tr>
<tr>
<td>Stress Tolerance</td>
<td>.90</td>
</tr>
<tr>
<td>Work Standards</td>
<td>.64</td>
</tr>
<tr>
<td>Attention To Detail</td>
<td>.21</td>
</tr>
</tbody>
</table>

*With n = 61, all values exceeding .29 are statistically significant at the .05 level.
Design of the Center

Just as separate surveys were conducted for the Professional, Sales, and PMS/Office areas of the company, so too, three pilot Management Skills Workshops were designed. The researcher observed and participated in the pilot Management Skills Workshop for the Professional area. That is, candidates for that pilot were exposed to the work of management as it pertained to the supervision of professional persons. They were assessed on 16 dimensions which were considered essential to their success as supervisors. The dimensions are listed and defined in Table 10.

Design of the program basically involved the selection and scheduling of exercises which were used to obtain measurement of the identified management dimensions. Because the director of the project had designed and conducted an earlier pilot for the Sales area and had experience with other assessment centers, he was able to design this pilot with minimal consultant help. He explained to the researcher, however, that it is in this phase of the development of an assessment center that the consultant's expertise can be of particular importance. Because DDI had over 100 exercises from which to choose, a consultant's knowledge of these exercises made possible a good fit between the exercise, the dimensions to be measured, and the organizational climate of the company. As the director explained,
### Table 10

Dimensions--Professional

<table>
<thead>
<tr>
<th>Skill</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Communication Skill</td>
<td>Effectiveness of expression in individual or group situations, includes gestures and nonverbal communication, skill in listening and understanding others.</td>
</tr>
<tr>
<td>Written Communication Skill</td>
<td>Ability to express ideas clearly in writing in good grammatical form.</td>
</tr>
<tr>
<td>Initiative</td>
<td>Actively influencing events rather than passively accepting; self-starting. Takes action beyond what is necessarily called for. Originates actions rather than just responding to events.</td>
</tr>
<tr>
<td>Leadership</td>
<td>Effectiveness in getting ideas accepted and in guiding a group or individual toward task accomplishment. Includes skill in guiding groups or individuals when no formal authority is present, as in a peer group task force or committee.</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Skill in perceiving and reacting to the needs of others. Objectivity in perceiving the impact of self on others.</td>
</tr>
<tr>
<td>Stress Tolerance</td>
<td>Stability of performance under pressure and opposition.</td>
</tr>
<tr>
<td>Planning and Organization</td>
<td>Ability to efficiently establish an appropriate course of action for self and/or others to accomplish a specific goal. Make proper assignments of personnel and appropriate use of resources.</td>
</tr>
<tr>
<td>Management Control</td>
<td>Skill in establishing procedures to monitor or regulate processes, tasks, or the activities of subordinates. Ability to evaluate the results of delegated assignments and projects.</td>
</tr>
<tr>
<td>Skill in detecting and identifying problems, securing relevant information, and identifying possible causes.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Ability to develop alternative solutions to problems, to evaluate courses of action, and reach logical decisions.</td>
<td></td>
</tr>
<tr>
<td>Readiness to make decisions, render judgments, take action, or commit oneself.</td>
<td></td>
</tr>
<tr>
<td>Ability to recognize, generate, and/or accept imaginative solutions and innovations in business situations.</td>
<td></td>
</tr>
<tr>
<td>Desire to do a good job for the job's own sake.</td>
<td></td>
</tr>
<tr>
<td>Ability to readily identify with and accept the problems and responsibilities of management.</td>
<td></td>
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<tr>
<td>Skill in perceiving the impact and implications of decisions or actions on other components of the organization.</td>
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<tr>
<td>Efforts to maximize human potential of subordinates through training and development activities related to current and future jobs.</td>
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experience with the exercises made him aware of which exercises yielded particularly rich data on a given dimension. The following considerations guided the choice of exercises for the pilot:

1. The choice of exercises must insure that there are at least three opportunities to observe behavior related to each dimension.

2. Each exercise must have face validity with the candidates and assessors. That is, it must have some relationship to their type of work and be an obviously worthwhile use of their time.

3. An adequate measure of each dimension must be balanced with a manageable number of exercises within the program.

In light of these considerations, five exercises were chosen for the Management Skills Workshop. In addition, an unassessed group exercise was included in the program. The exercises are described generally below and detailed examples may be found in Appendix B.

The In-Basket, considered the most powerful of the exercises because it yielded data on many dimensions, simulated the administrative and supervisory problems of a first- or second-level manager. The candidate was given brief background information on the situation surrounding the In-Basket, which contained 30 items representative of those which a given manager might face. Within a period of three hours the candidate was asked to go through the materials, determine the courses of action to be taken, answer letters and
memos, and plan phone calls and meetings. The In-Basket was administered individually. After the candidate had completed the task, and after an assessor had reviewed the results, an interview between the candidate and an assessor was held. The candidate was then asked to react to the exercise in general and to answer questions related to why various actions were taken. This exercise had the potential to elicit behavior related to several dimensions of managerial and/or administrative ability such as planning and organizing, judgment, decisiveness, problem analysis, sensitivity, written communication skills, and organizational sensitivity.

As an assigned role, leaderless group discussion exercise, the "Compensation Committee" was selected. Six candidates, acting as representatives from various departments of a large organization, were given the task of allocating $8,000 in discretionary, salary-increase funds among six employees from their respective departments. Background information on all six employees being considered was given to each candidate. He or she was to try to get as much of the money as possible for the candidate from his or her department while still helping the group to accomplish its task within the allotted hour. Each assessor observed two candidates during the exercise and recorded behavior related to the specified dimensions.

The "Lee K. Fawcett Plumbing Company" was chosen for the analysis exercise. Each candidate was given a considerable amount
of data about the Lee K. Fawcett Plumbing Company, its service policy, a synopsis of each worker's strength and weaknesses, and a summary of 15 service requests received overnight by the answering service. The candidates had to schedule the plumbers in such a way as to accomplish the work in the most efficient manner. After an hour the candidates were interrupted with notice that it was 11:00 a.m. and four more jobs, including an emergency in a school, had to be assigned to the plumbers who were out in the field. The candidates were given 20 minutes to adjust the schedule. Each candidate was later interviewed by an assessor and asked about each assignment made. Several dimensions such as stress tolerance, planning and organizing, management control, problem analysis, sensitivity, judgment, and oral communication skill were assessed in this exercise.

In the "Interview Simulation" the candidate, as a manager, had to conduct an interview with a subordinate. After being given background information regarding the purpose of the interview, the candidate was given 30 minutes to prepare for the interview which was held with a role player/interviewee. The interview, which lasted 20 minutes and was observed by an assessor, elicited behavior related to various dimensions including sensitivity, stress tolerance, planning and organizing, management control, problem analysis, judgment, decisiveness, work standards, and management identification.
"Management Problems" was an unstructured, leaderless group exercise in which the candidates, acting as consultants, were asked to make recommendations on four problems presented as brief case histories. The group had to reach a decision on each problem in one hour. The discussion had the potential to elicit behavior related to various dimensions of supervisory and managerial effectiveness including oral communication skill, initiative, leadership, sensitivity, problem analysis, judgment, decisiveness, management identification, and organizational sensitivity. Each assessor observed two candidates during the exercise.

The choice of the five exercises was made before assessor training began. It should be noted however that the assessors' reactions to the exercises were important input in the final decision as to the appropriateness of each exercise for the group of candidates to be assessed. Because the assessors were knowledgeable about the specific nature of the supervisory work the candidates would be asked to do on the job, consultation with them during the design phase of the assessment center was important to its success.

The scheduling of the two-day assessment center was done within several technical parameters. The decision of which assessor would observe a candidate in each exercise was based on consideration of the degree to which the assessors knew the candidates and had a supervisory relationship to them. If an assessor and a candidate
had a close supervisory relationship, they were only paired for a group exercise, not for an exercise which would place them in an interview situation such as the Interview Simulation, Lee K. Fawcett, or the In-Basket. The administrator also scheduled the assessment center so that a candidate was observed more by assessors who did not have a close supervisory relationship to him than by those who did. Within the above limitations, the center was scheduled so that each candidate was observed by the maximum number of assessors in the maximum number of exercises.

Considerations related to the nature of the exercises and group dynamics also affected the scheduling of the center. The In-Basket, for example, was scheduled on the first day in order that the assessor would be able to review its content and hold an interview related to decisions the candidate made on individual items of the exercise. A noncompetitive exercise, such as Management Problems, was recommended as the initial exercise because it allowed the candidates to get involved in the assessment process, release some of the anxiety of being observed, and was generally less threatening than an individual exercise. Highly competitive exercises, such as the Compensation Committee, were kept for the end of the center so that they did not influence performance in the other exercises. Scheduling provided for a variety of exercise types each day and took into account the fatigue factor for both assessors and candidates. Consideration
of assessor writing time was a very important determinant of the schedule. Exercises were arranged so that assessors had time after each exercise to write the essential elements of a report.

Assessor Training

Assessor (observer) training was held January 23-27, 1978. Fourteen members of management were invited to attend (Appendix C). Three of these were to be the assessors for the Professional pilot assessment center, and the others were invited for the sake of orientation to the assessment center method. The sessions were held in a company conference room which had chalkboard, flip charts, tables, and comfortable chairs. All those present received a schedule for the week of assessor training (Appendix C).

The assessment center (Management Skills Workshop) was introduced and described by the director of the project who served as the administrator during the pilot center. Although the schedule called for an hour of discussion and questions regarding the method, there were many questions, and a very intensive discussion of the method continued for the entire morning. Questions regarding EEOC scrutiny of the method, the handling and use of the data generated in the center, the relationship of the assessment center to the Career Development Workshop, and the effect of the center on candidates who do not perform well were discussed thoroughly.
The administrator, the three managers who would serve as assessors for the pilot program, and the researcher proceeded through the scheduled training session in the afternoon. Various techniques were used to make the assessors familiar and comfortable with each of the exercises planned for the assessment center. Initially, they participated in a behavior example exercise which provided practice in observing and recording specific behaviors. Following this, they observed a videotaped Compensation Committee exercise and took notes on the behaviors of individual candidates as they would in the pilot center. Discussion of the videotaped exercise and of the behavior recording exercise allowed the administrator and the assessors to begin to reach some common understanding of the expectations put upon them as assessors. Likewise, throughout the training session, discussion and practice allowed the assessors to clarify and communicate to each other their expectations of a person who would assume a supervisory position in their unit. This was particularly important to their use and consistent interpretation of the rating scale.

A candidate's behavior was to be rated relative to the requirements of the job, not relative to another candidate. A five-point scale was used:

5  - A great deal of the dimension was shown (relative to what would be expected for a successful supervisor).
4 - A more than satisfactory amount was shown.

3 - A satisfactory amount was shown (average).

2 - A less than satisfactory amount was shown.

1 - Very little was shown.

In addition, the following codes were used to clarify ratings:

0 - No opportunity to observe

W - Weak data, e.g., 4W

4/2 - Split rating, behaved differently under different conditions

h - too high, e.g., 5h (Some dimensions are positive up to a point and after that they become negative. Examples are risk-taking, sensitivity, decisiveness, etc.)

After discussion of the dimensions which would be rated in the Compensation Committee, and a practice behavior classification exercise, the assessors were asked to classify and rate the behaviors which they had recorded while watching the videotaped Compensation Committee. In addition, they were asked to write a brief description of their candidate's behavior in the exercise and the group's final decision. This description was to be used later in assessor discussion to orient the other assessors to the exercise, before consideration of a particular candidate's ratings. Samples of Group Discussion Assessor Report Forms, Parts I, II, III, and IV, which are included in Appendix C, may serve to clarify the mechanics of the observation and rating techniques. These sample forms are
copyrighted generic forms and as such list dimensions which may or may not have been appropriate to this particular unit's management needs. Similar forms were used for the Management Problems exercise as it too is a group discussion exercise.

In order to learn how to assess performance on the In-Basket exercise, the assessors worked through the exercise for three hours as though they were center candidates. An entire day of training was devoted to learning how to analyze the In-Basket. The assessors worked through the analysis in a group session with the administrator and later observed and discussed a videotaped In-Basket interview. The In-Basket has the potential to provide data on nearly every dimension and as such is a powerful instrument. Analysis of it is time consuming, but very important.

Training in the analysis of the Interview Simulation began with a demonstration of the exercise which was role played for the assessors' observation. The assessors had been instructed to take behavioral notes during the demonstration. Following the demonstration, they discussed the exercise and, as a group, categorized the observations they had made into the relevant dimensions.

In order to experience the analysis scheduling exercise, the assessors each worked through the Lee K. Fawcett exercise as though they were center candidates. They later discussed the exercise itself, the interview which follows it, and the scoring of the data.
Next, the assessors read the Management Problems exercise and discussed the scoring procedures which are very similar to those used in the Compensation Committee. Finally, there was discussion as to how the data generated in the exercises would be used in the final assessor discussions.

Throughout the training session there were innumerable questions asked and many periods of very open, frank discussion regarding the assessment center method. The assessors, who were scientists by profession, were at times skeptical of the mix of objectivity and subjectivity that are part of the assessment process. As they moved through the training, however, they seemed to gain confidence in the assessment center method and became more comfortable with their roles as assessors. The time spent in assessor training was essential, not only for learning specific behavioral observation and rating techniques but also for building the confidence and comfort level of the assessors.

Time was given to discussion of the scheduling and sequencing of exercises and to consideration of how the pilot assessment center should be presented to the employees of this given unit. There was concern that the dual purpose of the assessment center, selection and development, be clearly explained from the beginning. It was agreed that the assessors would meet and write a memo presenting the assessment center (Management Skills Workshop) to their employees.
They were encouraged to call upon the administrator for additional direction if necessary. The announcement of the Management Skills Workshop (Appendix D) was the result of those efforts.

Pilot Operation

The Management Skills Workshop was scheduled for two days, April 18 and 19, 1978. Assessor discussion followed the workshop on April 20 and 21 and continued through two afternoons of the following week. Six of the 26 persons who expressed an interest in the workshop were chosen for this pilot program. The six that were chosen held the positions of greatest responsibility within the participating unit at the time of the workshop.

Upon arrival, assessors and candidates were given a detailed schedule of the two-day session (Appendix E). The candidates' schedules were identical to the ones given the assessors except that they did not include notations of which assessor would be observing each candidate in each exercise. The workshop was held in a conference building, and the group involved used a conference room which had a chalkboard, tables and comfortable chairs, three small offices equipped with table and/or desk and chairs, and a lounge area where refreshments were available.

As scheduled, the program was introduced to the candidates by the administrator. Personal introductions were made; the writer's
role as assistant and researcher was explained briefly; and the objectives of the workshop, which had been explained earlier in the written announcement of the program, were reviewed. The administrator commented on the process of trained observers noting the candidates' behavior in each exercise and previewed the exercises. He stated that the candidates would be exposed to some management tasks that seemed familiar (Interview Simulation) and other less familiar tasks, some individual exercises and some group exercises. He indicated that they would receive feedback in two or three weeks and advised them that they would profit most by this experience if they made an effort to relax and be themselves. One candidate asked a question about the criteria against which they would be judged, and the administrator responded briefly that the criteria were determined from a survey of managers within the company. Another candidate commented, "So, you're going to pick our brains" to which the administrator replied, "Not exactly, but we are going to observe your behavior." There were no further questions.

With the six candidates seated around a table and with the assessors seated at tables several feet from the candidates but facing the particular candidates that they were observing for this exercise, the administrator read the instructions for the Management Problems exercise. The candidates read the first problem and, in what seemed a very relaxed and methodical manner, discussed the problem and
possible solutions and came to agreement on what their recommendation would be. They proceeded through the other three problems in similar fashion, showing mild frustration with comments from various group members which seemed to block their progress. They completed the exercise eight minutes ahead of the scheduled hour. The administrator collected the exercise materials and distributed the Participant Report Forms (Appendix E) which the candidates completed before taking a break. The administrator then collected from the assessors their Part II ranking of the candidates' overall contributions to the effectiveness of the group and transferred this data to the Ranking Summary Form (Appendix E). He also distributed to the assessors Parts III and IV on which the assessors, later in the afternoon, categorized, according to dimensions, the observational data they had gathered during the exercise.

Following the break, the group reconvened and were praised by the administrator on how smoothly they worked through the first exercise. They were then given instructions on the second exercise, the Interview Simulation. One question was asked and the candidates spent the next 30 minutes preparing for the role as the supervisor in the Interview Simulation (Appendix B), while the assessors worked on their Management Problems data. The administrator, assessors, and candidates then took the scheduled lunch break. The candidates were informed that they were not being observed as part of the
workshop during lunch or other informal breaks.

After lunch each candidate was scheduled for the 20-minute Interview Simulation. The interviewees were role played by members of the Employer Development staff. Each assessor observed two candidates, one at a time, as they interviewed "Pat Walker." These interviews were held in three small offices. The administrator kept time and tried to facilitate a comfortable entry into the interview situation for the candidate. Following each interview, the candidate completed a Participant Report Form, and the assessor discussed with the role player his perceptions and feelings about how he had been treated during the interview. After the six interviews had been conducted and the assessors and candidates had taken a short break, all reconvened in the conference room for the In-Basket exercise.

To each candidate seated at a separate table, the administrator distributed the In-Basket materials. He then read the exercise instructions aloud as the candidates followed, asked for questions, and instructed the candidates that they would have three hours to complete the exercise. The administrator stayed with the candidates while the assessors dispersed to other areas to analyze the Interview Simulation data. When the exercise ended at 5:15 p.m., the candidates left the conference center. The assessors took a dinner break and returned until 10:30 p.m. to assess the In-Basket data with the assistance of the administrator.
The second day of the workshop began with three of the candidates working on the Lee K. Fawcett scheduling problem in the conference room for 1 1/2 hours, and the other three candidates having a one-hour In-Basket interview in the three small offices. The administrator gave the instructions for the scheduling exercise and remained with that group for the duration of the exercise. After each group had completed their exercise, they switched places and took the alternate exercise. Thus before the lunch break, each assessor had conducted an In-Basket interview with the two candidates whose In-Baskets he had analyzed the night before, and all six candidates had completed the analysis scheduling exercise.

After the lunch break each of the candidates was interviewed with regard to the decisions they made on the Lee K. Fawcett scheduling exercise. While three of the candidates were being interviewed, the other candidates had a 45-minute free period until they were then interviewed. Within two hours all the candidates had been interviewed and, after a break, were ready to begin the Compensation Committee exercise.

For the Compensation Committee exercise the candidates were seated around a table in the conference room with assessors seated so they could each observe two candidates. The administrator read aloud the instructions to the candidates, distributed the compensation committee member profiles, and allowed the candidates to individually
read and plan their approach to the exercise for 15 minutes. The candidates, acting as the Compensation Committee, spent the next hour trying to reach agreement on how the funds available would be allocated. This was the only clearly competitive exercise in the workshop and, as the candidates were instructed, none of the funds would be allocated unless all the members of the committee agreed on how they should be allocated. In this instance, the candidates showed frustration and some hostility toward one candidate who would not agree to the compromise they worked out. The time for the exercise ran out without the candidates coming to agreement, and thus none of the candidates reached their objective. The candidates were asked to complete the Participant Report Form and then took a break. The assessors gave to the administrator their rankings of the effectiveness of each candidate to the progress of the group and then withdrew in order to begin to analyze some of the data they had collected during the day. The assessors spent that evening and the next morning analyzing and summarizing data in order to be ready for assessor discussion which was scheduled for the following afternoon.

The final session of the workshop was an unassessed group exercise called the Supervisory Characteristics Problem. The administrator explained that the purpose of the exercise was to help the candidates move from consideration of the specifics of each
exercise to a broader perspective of how the entire workshop related to supervision in the given company. It was hoped that putting the workshop in a larger perspective would facilitate the candidates' gaining some insight into how their own behaviors and needs related to supervisory work.

The administrator explained how the initial study had been conducted in the company to identify supervisory characteristics and related those characteristics or dimensions to the particular workshop exercises. He invited discussion of the characteristics or the workshop exercises and answered questions from the group. He also reviewed the feedback procedures and told the candidates that they would have another opportunity to give their reactions to the workshop in a couple of weeks when they met with the administrator for the feedback session.

The final session, besides being designed to give some perspective to the activities of the workshop, was also designed to provide an opportunity for some release of any negative or hostile feeling that may have resulted from the competitive Compensation Committee. Discussion with the administrator after this final session revealed his eagerness to experiment with the format of this last session. It was a somewhat difficult session in that it had varied purposes and the candidates were obviously tired.

The assessor discussions, during which the assessors shared
the data they had recorded and summarized on each candidate, proceeded in a very methodical way. Because of necessary commitments in each of the assessors' schedules, the discussions took place in various blocks of time within five days of the workshop, including evening hours. Three to four hours were spent in discussion of each candidate's performance.

Using the Dimension Summary Form (Appendix E), the assessors considered a candidate's performance one exercise at a time, dimension by dimension. Thus, the assessor who observed Candidate A on the Compensation Committee exercise began by reading from Part IV of the Group Discussion Form a general description of the role his candidate played in the exercise, the progress the group made toward the objective, and his candidate's overall contribution. The assessor then read the ranking given by the assessor, the ranking given by the candidate's peers in the exercise, and the candidate's self ranking, and proceeded to consideration of the dimensions observed during the Compensation Committee session. As instructed, the other assessors and the administrator recorded the assessor's rating of each dimension under the column labeled "assessors." As the assessor spoke, the others listened to the behaviors and took brief notes in the space provided for the exercise below each dimension. The notes were intended to be only very short "mind joggers." The assessors were instructed to record their ratings of the
dimensions under the column labeled "your," and not to be overly influenced by the rating assigned by the assessor who was speaking, but to make their own judgment based on the behavior reported. When the assessor finished reporting his data on each of the dimensions assessed in the Compensation Committee exercise, the assessor who had observed the candidate in Management Problems put the candidate's performance in the context of the group exercise by reading the Part IV description. He then proceeded to read the rankings given by the assessor, peers, and candidate and moved to consideration of each dimension related to the exercise as had been done for the Compensation Committee exercise.

The administrator facilitated this process and kept the group moving. He recorded the Part IV description on cassette tape and took copious notes as he listened to the assessors, in order that he would be able to write a detailed report and conduct a feedback session with each candidate. It was common during the assessor's discussion for the administrator and the assessor to ask each other questions in order to clarify their understanding of a candidate's behavior. It was obvious that all were very intent upon having as much information as possible before making judgments. After the data on each dimension from each exercise had been recorded and rated, the assessors were asked to give the candidate an overall rating on each dimension. For example, if on Oral Communication
Skill a candidate had been rated a "3" in Management Problems, a "3" in the Compensation Committee, a "3" in the Lee K. Fawcett scheduling exercise, and a "2" in the Interview Simulation, the assessor would most likely give the candidate an overall rating of "3" on Oral Communication Skill unless the candidate's performance on the Interview Simulation for some reason justified lowering the overall rating on that dimension.

Using the Data Summary Matrix on a flip chart (Appendix E), the administrator then asked each assessor for his overall rating on each dimension for the candidate under discussion. These were recorded on the flip chart and discrepancies in ratings among assessors were discussed, with each assessor again backing up his judgment with behavioral data. Where possible, consensus was reached on the rating of each dimension. Where consensus was not possible or where the candidate showed varied performance, a "mixed reading" was recorded. There was high agreement among the assessors on most of the ratings. Their differences never resulted in more than a one-point spread in the ratings. This seemed to give the assessors confidence in their ability to observe behavior and to judge that behavior against the stated criteria.

With assessor discussion completed, the administrator, using the data summarized on the Dimension Summary Forms and the Data Summary Matrix, wrote the candidate reports in preparation for the
feedback sessions with the candidates. An example of such a report may be found in Appendix E.

As can be noted in this very abbreviated composite report of several candidates, the ratings were reported as "Strength," "Mixed Readings," and "Development Area" rather than as the number ratings referred to earlier. A rating of "3" or above was reported as "Strength" and any rating below that was recorded as "Development Area." The report was sent to the top management of the unit in which the candidate worked. As a safeguard to the candidate, the management of the unit decided that the life of this report would be two years and that it was not to be used after May 1, 1980.

The administrator scheduled interviews with the candidates for the week of May 7. Using the report, the administrator conveyed to the candidate the results of his performance in the Management Skills Workshop. The interviews lasted from 1 to 2 1/2 hours. The candidates were not surprised with the reported results, and were able to accept the findings, both positive and negative, as realistic. Some time was spent with each candidate discussing ways in which he or she might develop or improve in identified areas. Finally at the end of the interview, the candidate was asked to complete a form (Appendix E) on his reaction to the Management Skills Workshop.
Budget

Consideration of the costs involved in the development and operation of the Management Skills Workshop is presented in two phases. The first phase includes the costs of development and design of the program and costs of operation for the pilot project. These costs were not charged to the unit which participated in the pilot center but rather were incurred by the company's Employee Development unit. They include the following:

- **Job analysis -- consultant fees**
  - 6 days @ $600
  - Total: $3,600.00

- **Design of program**
  - 5 days @ $600
  - Total: 3,000.00

- **Consultant expenses**
  - Travel, lodging, meals on three separate occasions
  - Total: $750.62

- **Training materials for 13 assessors @ $125**
  - Includes observer manuals, disposable items as well as videotapes
  - Total: 1,625.00

- **Assessment center materials**
  - 12 candidates @ $20
  - Total: 240.00

**Total**

- $9,215.62

The second phase includes the projected minimal charge-back costs within the company for a unit which requests a Management Skills Workshop once the pilot workshops are completed. It should be noted that neither the assessors' nor the candidates' time away from their jobs are considered in these costs.
Assessor Training (for 10 persons)

Administrator time $810.00
Secretarial time 48.00
Materials 400.00
Refreshments 50.00
Building use 100.00
Total ($140.00 per person) $1,396.00

Management Skills Workshop (6 candidates)

Administrator time $1,296.00
(Includes writing reports and conducting feedback interviews)
Secretarial time 200.00
Materials 150.00
Refreshments 18.00
Building use 36.00
Total (Approximately $283.00 per candidate) $1,700.00

This chapter provides a case study description of the development and pilot operation of an assessment center for the purpose of management selection and development. Chapter V provides an analysis of this project in light of the Kepner-Tregoe decision analysis model.
CHAPTER V

ANALYSIS

Reflection upon the assessment center method using the Kepner-Tregoe model of decision analysis sheds some light on the case study which was presented in Chapter IV. This chapter will consider the Management Skills Workshop in relationship to a conceptual model, a process model, and the point of view of the manager who chose to invest in the assessment process.

A Conceptual Model

The six concepts of choice (Kepner & Tregoe, 1973) which were presented in Chapter III form the basis of the conceptual model used to analyze the Management Skills Workshop. The first concept of choice states that a detailed ideal, model, or set of criteria can be specifically stated for any conceivable entity, thing, or state. The 16 dimensions on which the candidates were measured served to define this ideal as it applied to supervisory behavior. Likewise, the assessors' understanding of the degree to which each dimension was essential to a specific supervisory position in their area of the company further shaped the parameters of this ideal or model.

The second concept of choice states that, for any situation,
alternatives of differing goodness and practicality do exist from which a selection can be made. Very simply, the manager of this unit had some confidence that there were persons in his unit who were capable of successful performance as supervisors. If there were not, he had the option of looking outside the unit for the necessary expertise.

The third concept of choice states that it is always possible to render some clearcut relative judgment between alternatives with regard to a specified, particular dimension or characteristic. The five assessed exercises in the assessment center (Management Skills Workshop) provided the opportunity for the candidates to perform specific tasks relative to the dimensions. Likewise, the exercises provided the opportunity for the assessors to judge the candidate's behavior relative to the dimension criteria and, eventually, to make some clearcut relative judgments between candidates. The quality of these judgments was enhanced by the rigorous assessor training which preceded the workshop. Furthermore, the assessment center method, by design, enhances the quality of the judgments made because it demands that multiple observers assess each candidate's behavior in multiple situations.

The fourth concept of choice states that man is not restricted in his thinking to the present, but he may project himself and his activities forward into the future to any degree that he sees
appropriate and can insert the implications he sees from that projection into his present thinking. During the training session, during the workshop itself, and also during assessor discussion, the assessors were forced to project their judgments about the dimensions exhibited by a candidate into consideration of the future demands which would be placed on the candidate in a particular supervisory job. Their familiarity with the specific demands of the positions to be filled allowed them to make these projections with some facility.

The fifth concept of choice states that man can precisely reduce items of information, through summarization and judgment, to a statement of position in which he believes. The assessor discussion described in Chapter IV provides an excellent example of this concept. Each assessor had to summarize for the other assessors a candidate's behaviors in a particular exercise relative to specific dimensions. Then each assessor had to make his own judgment about the data presented. The process demanded that behaviors be recorded and analyzed in detail, and always against the background of a dynamic job situation. The final stage of the process demanded that the data be synthesized and that the assessors attempt to come to consensus—to a statement of position in which they believed. This movement to a position of confidence about the judgments they had made was obvious to the researcher during assessor discussions.

The sixth concept of choice states that man is capable of
choosing between entities which he can see, visualize, understand, and compare and does so with the deep conviction that he has discovered the truth of the matter. The assessment center method, again by design, provided the opportunity for management to see, visualize, understand, and compare the candidate's skills relative to the dimensions considered essential for supervisory success. This behavioral presentation of the candidates did affect the conviction with which the assessors came to their judgments. Because the unit which participated in the Management Skills Workshop pilot was particularly small, its top management were the assessors. Thus, they had the conviction which comes from direct experience. In a larger organization, however, where top management would probably not have served as the assessors, the feedback report, which is rich in behavioral data, enhances the possibility that management would be able to make the selection decision with some confidence. This confidence and the high expectations management would have for the selected candidate could in turn positively influence the candidate's performance in the new position. The relationships which have been noted between the concepts of choice and the assessment center method are illustrated in Figure 2.
1 An ideal is stated in detail. [Job analysis, list of dimensions]

2 Alternatives exist which approximate the ideal in some degree. [Group of candidates]

3 Relative judgments are made, each alternative versus each other, with respect to the ideal. [Performance in exercises, observed, recorded, rated]

4 Projection is made into the future, and implications are added to present thinking. [Performance rated in terms of the requirements for the future job]

5 A great deal of information is summarized into a position with respect to each alternative. [Assessor discussion, feedback reports]

6 A choice is made between alternatives as to which best matches the ideal. [Selection decision by management]

Figure 2. Concepts of choice (Kepner & Tregoe, 1973, p. 25) and the assessment center method.
A Process Model

Kepner and Tregoe (1973) presented a process model for decision analysis which is basically a sequence of information processing steps which a person would go through in order to be able, in the end, to make a reasoned selection between the alternatives available to him. The steps in this process, which are listed below, follow closely the concepts of choice:

1. Setting out the decision statement
2. Specifying the ideal
3. Classifying and weighting the criteria
4. Stating the alternatives
5. Evaluating the alternatives
6. Projecting future consequences
7. Making the choice

Setting out the decision statement

Just as the director of the assessment center project clearly pointed out the objectives of the project in his invitation to several managers to attend assessor training, so too, the manager of the unit which participated in the pilot project made clear the objectives (set out the decision statement) to the participants:

1. To provide information about the characteristics required to be successful in a management role.
2. To provide feedback to management on each participant's skills and abilities relative to management.

This step was critical not only in terms of the direction given to the project but also in terms of its credibility to the participants. From the point of view of management, the manager of this particular unit was facing some organizational problems, knew reorganization was necessary in the near future, and wanted to insure that that reorganization took into account the strengths and weaknesses of the present staff. Thus, the feedback the workshop would provide was his primary objective.

Specifying the ideal

The process of setting out the criteria of choice began with the job analysis interviews described in Chapter IV. The process continued with the written survey distributed to second-level managers (Appendix A). From this survey resulted the list of 16 dimensions which the managers considered critical to success in management. During assessor training, the managers who served as assessors in the pilot project discussed these dimensions as defined in order to assure that they were relevant to the supervisory positions under consideration in their unit.

Classifying and weighting the criteria

The process of classifying and weighting the data occurred at
two different times during the process that has been described. Initially, the second-level managers who responded to the job analysis survey weighted and ranked the dimensions that had emerged from the job analysis interviews. These efforts produced a list of dimensions that were ranked in order of importance to successful performance as a manager. Weighting of the criteria took place again during assessor training as the assessors considered the importance of the dimensions relative to the requirements of specific supervisory positions in their unit. In an informal way the assessors came to the realization that it was unlikely that they would discover candidates who exhibited all the dimensions to a high degree. Again, informally, they came to some agreement among themselves that skills related to some of the dimensions were MUSTS in terms of the requirements of the work in their unit, whereas skills related to other dimensions would, by comparison, be considered WANTS.

**Stating the alternatives**

The management of the unit involved in the pilot center decided to give itself the widest possible choice of alternatives by announcing the Management Skills Workshop to all full-time employees of the unit. Thirty-two of the forty-five employees in the unit elected to participate in the workshop. Though the commitment to allow these employees to participate in the workshop was very costly in terms of
time, the manager of the unit told the researcher that the assessment process would yield valuable information for reorganization strategies. In addition, the manager stated that already he was aware of improved unit morale which seemed to be related to the group's perception that management had a real interest in the employees if they were willing to spend this much time in giving them the opportunity to participate in the workshop. Two of the six persons chosen for the pilot workshop were chosen because they were in positions of responsibility, and management wanted a clearer picture of their management capabilities. It was also felt that these persons would most likely communicate in a positive way the workshop experience to those they supervised. The other four candidates were chosen for the pilot because management had interest in them in terms of future reorganization and needed more information about their skills.

**Evaluating the alternatives**

In multiple situations the candidates were observed by multiple assessors on multiple dimensions. This design allowed for a breadth of information which could hopefully outweigh the biases inherent in judging behavior. The judgments that were made were translated into ratings that would facilitate the use of large amounts of data and the comparison of several candidates. Likewise, consideration of
candidate ratings on MUST and WANT dimensions was important to evaluating the alternatives.

Projecting future consequences

The projection of future consequences was a step which management had to take once the alternatives had been evaluated and clearly stated. Having already related the dimensions to the specific requirements of the work of the unit, and with comparative data on each candidate, management had to visualize each choice as having been made and ask: "What trouble did this choice create?", "Who was affected?", and "What opportunities did it open up?" Then each consequence was assessed in terms of its seriousness and its probability. The assessment center method itself does not include the process of considering the consequences of a selection decision, but it does provide a considerable amount of data which is necessary and antecedent to that process.

Making the choice

The selection decision is a joint decision between management and the candidate. Kepner and Tregoe (1973) suggested that "the 'rightness' of the decision ought to be judged as much by the way in which it was reached as by its outcome" (p. 43). The Management Skills Workshop provided the management of the given unit with
supplemental information which they planned to use in future personnel decisions. Because the candidates for the pilot center were quite familiar to the assessors (who were the top management of the unit), the manager of the unit admitted that the workshop did not provide them with startlingly new information about the candidates. It did, however, help the assessors to clarify their perceptions and document their findings. Viewing selection as a two-way decision, the workshop also gave the candidates a clearer idea of the skills required of management, in order that they could make more realistic decisions about their interests in management positions. The choices that the manager of the unit had to make were not immediate in terms of selection decisions. He stated that, with the data that were available to him through this and future centers, he would be able to make personnel decisions with greater cognizance of individual strengths and weaknesses. In addition, the feedback given to the candidates could give greater direction to individual development plans.

The Kepner-Tregoe concepts of choice and steps of decision analysis provided a framework for analysis of the Management Skills Workshop which was helpful to the researcher. Having examined the assessment center method through the literature and through the case study, Chapter VI will consider its implications for education.
CHAPTER VI

IMPLICATIONS FOR EDUCATION
AND SUMMARY

This chapter consists of a discussion of the implications of the use of the assessment center method in education for the selection of school principals and a summary of the study.

Implications for Education

The findings of the present study have several meaningful implications for education and the selection of school principals. The implications relate to the following issues:

1. The quality of leadership in the schools
2. Compliance with EEOC regulations
3. Community involvement in the decision-making process of selection as it pertains to the school principal.

It can be shown that the use of the assessment center method for the selection of school principals is defensible from the point of view of its timeliness and cost effectiveness in addressing these issues.

Quality of leadership

The following current concerns are but a few of those which...
face the school principal today: low basic skills achievement, student discipline, substance abuse, vandalism, competency testing, racial tensions, negotiated contracts, and citizen involvement. Unlike the past, the principal today must deal not only with day-to-day operational concerns and future curricular planning, but also with the variety of complex issues which have been mentioned. The need for leadership to accomplish this task is of critical concern.

At the present time, interviewing and letters of recommendation are the most common selection tools used by school districts. Though there is research which shows the unreliability of these procedures, there is little evidence of research being done on alternate methods of selection for school principals. The quality of leadership demanded and the care with which that leadership is selected are incongruent. For this reason it is very timely that the assessment center method be seriously considered as a selection procedure in the choice of school principals. Research on the assessment center, which was presented in Chapter II, indicates that the ability to predict successful management performance is substantially improved by the use of the assessment center method over other selection procedures. Government, business, and industry have taken the lead in testing and validating the assessment center method for their selection purposes. It is appropriate for educators to test the method for their purposes as well.
At a time when school districts are pressed financially, there are likely to be misgivings about the cost of developing and operating an assessment center. Discussion of costs should be in terms of cost benefit ratio. How important is the principal to the quality of the education available in a particular school district? What benefits accrue to a school district which has increased the possibility that the principal they have selected has the necessary skills to be an effective educational leader? How long will the person selected to be principal hold that position and so impact upon the education offered in the school district? What losses result from poor management—loss in terms of lower student achievement, low student and teacher morale, and high staff turnover, to mention but a few? These questions must be part of the consideration given to the cost of an assessment center.

Examples of the costs of poor management, of a school district buying off a principal's contract in order to prevent further loss are not uncommon. Furthermore, with declining enrollments and the tight education employment market, more principals are being selected from within school districts. While this practice has certain advantages, it also limits the talent pool from which the principal is selected and increases the need for sound and reliable selection procedures. The costs of an assessment center are reasonable in comparison with the costs of ineffective leadership which are
incalculable.

**EEOC compliance**

Just as the assessment center method has been used by business and industry to satisfy EEOC regulations, it could aid schools in complying with these same regulations. There is little evidence that EEOC has been of pressing concern to most school districts, yet it would seem that the time to develop sound and systematic selection procedures should precede a request to show compliance to the regulations in an individual case. Time and careful planning are critical to the development of sound and systematic selection procedures in general and to the development of an assessment center in particular. If an assessment center is to provide demonstrable objectivity and fairness in selection practices, a thorough job analysis and the subsequent development steps must be planned for and followed. As Bridges and Baehr (1971) stated, the demand for compliance is upon us and can no longer be ignored.

Just as in improving the quality of educational leadership the assessment center is a cost effective approach to selection, it is also a cost effective approach to EEOC compliance. Individual awareness of rights under affirmative action and the growing strength of the union movement in education have increased the likelihood of use of legal suits to assure objectivity and fair treatment. The costs
of legal handling and compensation for violations of the law are staggering. The assessment center method, which has been upheld in the courts as a fair and objective selection procedure, surpasses other current practices in terms of its legal defensibility. On these grounds it may be considered cost effective.

Citizen involvement

As various groups in the school and community bid for a greater voice in the management of the school district, there is likely to be pressure for increased involvement in the selection of the school principal. If superintendents and school boards can demonstrate thorough and systematic selection procedures that reduce the biases of traditional selection approaches, they may be more likely to gain the confidence of those demanding a greater voice. The lack of defined criteria and objectivity in current selection practices invites criticism. Not only could the assessment center method be defended over current practice, but its features as a development tool could be attractive at a time of concern for professional development.

It is conceivable that lay persons, be they school board members or others, could participate in the job analysis phase of development of an assessment center. This would be defensible in areas of the job analysis which relate to a principal's skill in assessing local educational needs and in communicating with parents about the
educational program and future planning. Careful consideration should be given to the degree to which lay persons participate in the job analysis, but their participation should not be overlooked.

Obstacles to implementation

Some consideration must be given to possible obstacles to development of an assessment center for the selection of school principals. Acceptance of the assessment center method is dependent upon the degree to which the purpose of the assessment center has been openly communicated to those who will be involved in it. Without careful introduction, the assessment center may be seen only as an evaluative tool and, as such, a threat. Because the success of an assessment center is dependent upon a thorough analysis of the needs of a particular organization, it is not a process which can be legislated or imposed from without. The method is congruent with the protection of local control because the job analysis upon which it is based reflects the needs of the particular school district.

Timidity and resistance to change pose another obstacle to development of the assessment center method for the selection of school principals. Hopefully, the case study presented in Chapter IV has reduced some of the uncertainty involved in moving into unfamiliar territory as the assessment center method might seem to be. It illustrated the very methodical processes involved in developing and
piloting an assessment center. The involvement of management in every phase of the development of an assessment center increases the likelihood that it will be used by management in the selection decision-making process as intended. Acceptance of the assessment center method as an innovation is therefore built into the development process. In addition, acceptance of the method should be enhanced by careful policy formulation related to questions of the life and use of the data collected in the assessment center and the nomination of candidates to participate in the assessment center, be they employed by the school district or not. Hopefully, the serious thought which these and other questions demand will not discourage those who see the possible benefits to be gained from use of the assessment center method.

The resources necessary to develop and operate an assessment center may, upon first consideration, seem to be an obstacle to investigation of its use. Consideration was given to the issue of financial resources in the discussion of the cost effectiveness of the assessment center as it relates the quality of leadership demanded at this time. Consideration of the necessary human resources should not pose a serious obstacle. While the development, pilot, and implementation of the assessment center method demand particular professional expertise, it is not necessary that each district develop this expertise on its own. Rather, the Intermediate School District
and the university placement office are but two of possible resources which could develop and provide the necessary expertise. The expertise needed for the job analysis, design, and administration of an assessment center could be shared among several districts, while local persons could serve as assessors to legitimatize the process. In this way the duplication of the administrative function could be avoided. Assistance from the Intermediate School District and/or the university placement service in developing and operating an assessment center could mean a substantial reduction in consultant costs from the costs incurred by the company which was the subject of this research.

Summary

This study focused on the development and pilot operation of an assessment center for the purpose of managerial selection and development. Specifically, it was a case study of how one company developed and piloted an assessment center for selection and development purposes. The data were collected by the researcher by means of interviews and participant observation between October, 1977, and April, 1978, and were presented in Chapter IV. The data were analyzed in Chapter V using the Kepner-Tregoe decision analysis model. Discussion of the implications of the use of the assessment center method in education for the selection of school principals has been
presented. The study will be summarized by consideration of the questions that were selected for investigation.

Question 1

What are the key steps in the process of development of an assessment center as a selection tool for an organization? Four major steps defined the process of development of an assessment center which was illustrated in the case study in Chapter IV:

1. The job analysis which resulted in a list of dimensions, or criteria, which were considered necessary for successful managerial performance.

2. The design of a center using exercises which elicited behavior reflective of those dimensions.

3. Accurate observation, recording, and rating of such behavior made possible by rigorous assessor training.

4. The communication of the objectives of the assessment center to the employees, so that they could participate in the decision-making process of selection.

Question 2

What steps were taken to secure the commitment of the top level management in the development and use of the assessment center?

Research on the part of the manager of the Employee Development unit on the subject of improving the return on the
company's investment in people led to an investigation of improved means of managerial selection. Cogent presentation of these findings to top management resulted in top management's commitment to the development of an assessment center for the purpose of managerial selection and development. Commitment from management to participate in the pilot and use the process came as a result of Employee Development's management and staff being responsive to the needs of particular units and being able to communicate that the assessment center method could assist them in meeting those needs. Commitment was strengthened by the participation of top management as assessors in the pilot center.

**Question 3**

What steps were taken to insure the positive introduction of the assessment center to company employees?

The decision to have participation in the assessment center (Management Skills Workshop) be on a voluntary basis enhanced its introduction. The written announcement to all the full-time employees of the unit which participated in the pilot was forthright in its statement of the objectives of the program and addressed many of the questions which are commonly asked about such programs. Employees were encouraged to ask members of management any further questions they might have. In addition, some of those chosen to
participate in the pilot center were chosen because they had high visibility and would be likely to communicate their experience in the pilot program in a positive manner. Though efforts to honor the requests of the 32 employees who want to participate in the program will be time consuming, these requests will be honored, showing the commitment of management to the employees with regard to this program.

**Question 4**

What possibilities does the assessment center hold for use as a tool in the selection of principals?

Summarizing an earlier section of this chapter, the assessment center method, as a selection tool, improves management's ability to predict successful managerial performance.

The assessment center is a process which provides demonstrable objectivity and fairness in the light of EEOC regulations. Likewise, it provides criteria and a tested process which are more defensible than traditional selection practices in the face of criticism from professional and community groups who want more voice in the selection of the school principal.

**Question 5**

What obstacles might be expected to hinder the use of the
assessment center as a tool in the selection of principals?

Fear that the process and the criteria are being imposed from without and do not suit the needs of a particular organization is a possible obstacle unless the job analysis is carefully done involving the appropriate members of the organization. Likewise, financial obstacles may seem insurmountable unless the process is considered in the light of its cost/benefit ratio and unless efforts are made to cooperate and search out the most appropriate professional expertise.

From a research point of view, the intent of this study was to describe the assessment center method, a selection procedure used successfully by government and industry, but unfamiliar to most educators. The questions which this study addressed are basic exploratory questions. Hopefully, many more questions will follow as this study stimulates research and experimentation with the assessment center method in education. This method holds promise for the improvement of the selection of school principals and, consequently, for the improvement of the quality of education offered in the schools.
REFERENCES


Loacher, G. Assessment procedures used as educational criterion: Alverno College pioneers innovative program. Assessment and Development, 1974, 2 (1), 5-6.


McIntyre, K. E. Selection of educational administrators. University of Texas and the University Council for Educational Administration, January, 1966.

McIntyre, K. E. The way it was/is. *National Elementary Principal*, 1974, 53, 30-34.


ADDITIONAL BIBLIOGRAPHY


Buckley, J. J. The determination to pioneer: Six ways of improving the process of selecting urban school administrators. Phi Delta Kappan, 1971, 52 (6), 361-362.


James, H. T. The certificate to administer a school system. Administrator's Notebook, 1955, 3 (9).


Moore, R. B. Selecting administrators through testing. *Administrator's Notebook*, 1962, 10 (8).


Stoker, W. M. Four hundred elementary school teachers look at the elementary school principalship. 1975. (ERIC Document Reproduction Services No. ED 122 414)


Appendix A

Job Analysis Survey
Memo--Copy

To: Subject: First-Level Supervision
From: Date: October 3, 1977

Attached is a survey asking for your analysis of the job of the first-level supervisor or manager in your area. Moving into a management job from a non-management job is one of the most difficult adjustments in a person's career. The purpose of this study is to determine and validate the characteristics required for successful supervision. In an earlier phase, twenty-seven people were interviewed to determine the characteristics shown here; in this phase you have the opportunity to evaluate the importance of those characteristics and to add any which you think are also critical.

The results of the survey will be used in two ways--both aimed at helping management make the best possible appointments into first-level managerial positions. In the company these appointments to management determine our pool of managerial talent for higher positions; they determine how effectively the work of the company gets done. The results of the survey:

(1) Will be supplied to management as a basis for evaluating candidates for management positions.

(2) Will be used in designing a Management Skills Workshop program. This program will give employees a look at what supervision requires before a career decision is necessary; and will provide management with much additional information on a candidate's critical strengths and weaknesses before an appointment to supervision is made.

These data will help both employees and management made decisions on first-level management jobs; their careful use will also minimize ineffective appointments which are costly and cause people to fail.

As you will notice, the characteristics addressed in this study focus only on management aspects of the job. Technical or professional skills critical to success on the job cannot be addressed in this study. Since the management skills required will vary somewhat from area to area, the attached form has been in a general way tailored to the requirements for supervision in your area of responsibility, using
the interview data collected previously.

The validity of this study depends on a high degree of questionnaire return, and thus, on your cooperation. Please carefully evaluate the dimensions presented and feel free to make any comments or additions you desire. When finished, fold this document and return to the addressee on the back; its return within a week would be helpful.

Thank you,
Analysis of Effective Supervision

On the following page is a list of the dimensions which have been tentatively identified in a number of interviews as related to successful performance in first level supervision.

In order to maximize both the validity and usefulness of this study we need your assistance in evaluating the importance of these dimensions. Please follow the steps outlined below:

(1) Read over all dimensions and definitions carefully before beginning.

   Evaluate each dimension independently. Do not assume that strength in one dimension will compensate for weakness in another. Although this could occur on an individual basis, the focus of this questionnaire is on the actual job requirements.

(2) Rate the dimensions according to their importance for success in first-level supervision by placing one of the following numbers in the first column to the right of the dimension:

   4 - Absolutely essential. A person could not possibly perform satisfactorily in the job without a high degree of skill in this area.

   3 - Essential. It would be very difficult for a person to perform satisfactorily in the job without at least a moderate amount of skill in this area.

   2 - Useful, but not essential. Skills in this area would sometimes enhance job performance, but satisfactory performance could be expected without it.

   1 - Unnecessary. Skills in this area would almost never have anything to do with satisfactory job performance.
Communication Skills:

**Oral Communication Skill** - Effectiveness of expression in individual or group situations, includes gestures and nonverbal communication, skill in listening and understanding others.

**Written Communications** - Ability to express ideas clearly in writing in good grammatical form.

Personal Areas:

**Stress Tolerance** - Stability of performance under pressure and opposition.

**Initiative** - Actively influencing events rather than passively accepting; self-starting. Takes action beyond what is necessarily called for. Originates actions rather than just responding to events.

**Work Standards** - Desire to do a good job for the job's own sake.

**Management Identification** - Ability to readily identify with and accept the problems and responsibilities of management.

**Creativity** - Ability to recognize, generate, and/or accept imaginative solutions and innovations in business situations.

Interpersonal Areas:

**Sensitivity** - Skill in perceiving and reacting to the needs of others. Objectivity in perceiving the impact of self on others.

**Leadership** - Effectiveness in getting ideas accepted and in guiding a group or individual toward task accomplishment.

**Informal Leader/Teamworker** - Skill in guiding groups or individuals when no formal authority is present, as in a peer group task force or committee. Includes effective contributing as a team member.

**Organizational Sensitivity** - Skill in perceiving the impact and implications of decisions or actions on other components of the organization.
Developing Subordinates - Effectiveness in individual coaching in field work, teaching in group situations, and orientation toward development of subordinates.

Independence - Taking action based on one's own convictions rather than through a desire to please others.

Management Skills:

Planning & Organizing - Ability to efficiently establish an appropriate course of action for self and/or others to accomplish a specific goal. Make proper assignments of personnel and appropriate use of resources.

Management Control - Skill in establishing procedures to monitor or regulate processes, tasks, or the activities of subordinates. Ability to evaluate the results of delegated assignments and projects.

Decision Making Skills:

Problem Analysis - Skill in detecting and identifying problems, securing relevant information, and identifying possible causes.

Judgment - Ability to develop alternative solutions to problems, to evaluate courses of action, and reach logical decisions.

Decisiveness - Readiness to make decisions, render judgments, take action, or commit oneself.
Communication Skills:

**Oral Communication Skill** - Effectiveness of expression in individual or group situations, includes gestures and non-verbal communication, skill in listening and understanding others.

How important will it be for the supervisor to (1) orally express ideas and instructions in a way so that others will accurately understand their intended meaning, and (2) insure that he has grasped the meanings intended for him?

**Written Communications** - Ability to express ideas clearly in writing in good grammatical form.

How important will it be for the person in this position to express ideas, recommendations, instructions, statements of past actions, etc., in writing so that others will accurately understand their intended meaning?

Personal Areas:

**Stress Tolerance** - Stability of performance under pressure and opposition.

A number of sources of stress may exist for persons in this occupation, meeting objectives, timetables, projects, difficult interpersonal situations, etc. How important to overall success on the job is it for a person to function effectively under stress?

**Initiative** - Actively influencing events rather than passively accepting; self-starting. Takes action beyond what is necessarily called for.

How important will it be for the person to begin action on anticipated problems and/or begin steps to rectify problems early, not waiting until circumstances force a response or action? Some people get by doing only what is required;
others try to go one step beyond and begin action on anticipated problems. How important is this latter type of behavior to successful functioning in this position?

**Work Standards** - Desire to do a good job for the job’s own sake.

This is a desire to achieve exceptional results or highest quality output for oneself, subordinates, associates, and the organizational entity. A person with high work standards would set high goals in areas where interest may be lacking. How important is this dimension to the overall success of the person in this position?

**Management Identification** - Ability to readily identify with and accept the problems and responsibilities of management.

It is seldom easy for an employee to make the transition to the ranks of management. How important is it for the person in this position to quickly and completely become a member of the management team responding to situations by taking the management viewpoint? To keep the interest of the company primary in his/her decision-making process.

**Creativity** - Ability to recognize, generate, and/or accept imaginative solutions and innovations in business situations.

Successful performance in some supervisory jobs requires innovative solutions to business problems, people problems, products, organizations, etc. How important is it to the overall success of a person on this job that he/she be able to recognize, generate, and/or accept such solutions?

**Interpersonal Areas:**

**Sensitivity** - Skill in perceiving and reacting to the needs of others. Objectivity in perceiving the impact of self on others.

This dimension is sometimes seen as important in situations where supervisory responsibilities exist. How important to the overall success of the person in this position is it that the person recognizes subordinates as individuals and considers differences in needs and personalities when deciding how best to interact with them? How
important is it that they are treated with empathy?

**Leadership** - Effectiveness in getting ideas accepted and in guiding a group or individual toward task accomplishment.

How important is it for the manager to be seen and accepted as a leader by his/her subordinates? How important is it for the manager to use good leadership skills and practices on the day-to-day basis when interacting with subordinates and peers?

**Informal Leader/Teamworker** - Skill in guiding groups or individuals when no formal authority is present, as in a peer group task force or committee. Includes effective contributing as a team member.

How important is it to overall success in this position for an individual to function smoothly as a leader or contributing team member in a group of peers or others, to interact effectively with other individuals in cooperative effort?

**Organizational Sensitivity** - Skill in perceiving the impact and implications of decisions or actions on other components of the organization.

How important is it to overall success in this position is it for the individual to appreciate the interworkings of various organizational units, and particularly how his/her activities impact others?

**Management Skills:**

**Planning and Organizing** - Ability to efficiently establish an appropriate course of action for self and/or others to accomplish a specific goal. Make proper assignments of personnel and appropriate use of resources.

Persons in this job may frequently be called upon to schedule time, assign persons to jobs, set up schedules for self and/or others in an efficient manner. Occasionally unanticipated changes in work and/or schedules will require rescheduling and reallocation of resources, sometimes on short notice. Time must be planned carefully so that the full range of responsibilities can be handled in this
occupation. How important is this dimension to the overall success of the person in this position?

**Management Control** - Skill in establishing procedures to monitor or regulate processes, tasks, or the activities of subordinates. Ability to evaluate the results of delegated assignments and projects.

Persons in this position must, from time to time, follow up on assignments, monitor progress on projects, supervise the activities of subordinates in a way which insures the completion of a project, etc. How important is effective managerial control to the overall success to the person in this position?

**Decision Making Skills:**

**Problem Analysis** - Skill in detecting and identifying problems, securing relevant information, and identifying possible causes.

How important is it that persons in this position perceive that problems or future problems may exist and that before making decisions or recommending action, they investigate situations, identify and weigh important variables involved, and seek the necessary information on which to base a decision?

**Judgment** - Ability to develop alternative solutions to problems, to evaluate courses of action, and reach logical decisions.

Staying with the decision making realm of this person's responsibility, how important is it that decisions which are made or recommended be rational, realistic, logical, and free from undue risk?

**Decisiveness** - Readiness to make decisions, render judgments, take action, or commit oneself.

Disregarding decision quality, which is judgment, how important is it for the person in this position to actually make decisions on various issues without constantly relaying them up to the next level of management and/or without undue delay in confronting a situation which requires a decision?

(Any additions or comments you wish to make would be appreciated. You may use the back of this page.)
Job Analysis - Ranking of Importance

You have just rated the importance of each dimension independently as it applies to supervision in professional areas. In this section, we would like to establish a relative ranking of the dimensions. We, therefore, ask you to do the following:

(1) Review the definitions of the dimensions.

(2) Select the dimension you consider to be of most importance to the success of the first-level supervisor. In the space below, label it with a "1".

(3) Now select the dimension you consider to be of least importance; label it with a "16".

(4) Identify the dimension which you consider the second most important to the success of the first-level supervisor; label it with a "2".

(5) Identify the dimension which you consider next-to-least important; label it "15".

(6) Continue this process, identifying the extremes of the ranking until you have all 16 dimensions ranked. The dimensions in the center of the distribution (ranked 7, 8, 9, and 10) will probably be the most difficult. Rank all dimensions as well as you are able.

Oral Communication Skill  Leadership
Written Communications  Informal Leader/Teamworker
Stress Tolerance  Organizational Sensitivity
Initiative  Planning & Organizing
Work Standards  Management Control
Management Identification  Problem Analysis
Creativity  Judgment
Sensitivity  Decisiveness

Name  Unit Name  Location (City)
Appendix B

Assessment Center Exercises
SECTION MANAGER'S IN-BASKET

Instructions for Participant

For the next three hours you will assume the role of the Service Section Manager of the Design Department of the CDC organization. Your name is Leslie Post. You have been with CDC for 8 years, working in various departments. Two years ago you were promoted to Supervisor in Unit 4, and two weeks ago your boss recommended you for promotion to Service Section Manager in the Design Department. After an interview with Jake Davenport, Director of the Department and with Bill Stark, General Director of Personnel, you accepted the offer. Your official starting date is Monday, September 8th. However, you will be out of the office your first week with a prior commitment and will not return until Monday, September 15th. The following summarizes the information you need about the job:

Your predecessor was Chris Jaye, a woman who had been with CDC only 9 months when promoted to Service Section Manager. Having been in this position for just over one year Chris left last week to accept a position with a higher paying job.

The Service Section Manager is responsible for the following areas: (1) Photo Reproduction; (2) Secretarial Pool; (3) A few miscellaneous duties that you have 25 people (all non-management) reporting to you. Some of these positions remain unfilled.

Your boss, Jake Davenport, is a man who has been with the company for 13 years, and is generally well thought of. He has a good reputation, and there seems to be some competition among you and your subordinates for Jake's job in a year or so.

Chris Jaye's secretary, Miss Goodbody, is a woman who has been with CDC just over 6 months, and is a very capable worker. She has been at the company for 13 years, and is often looked to Jaye for additional work when things got too slow for her.

Mr. Davenport mentioned that the in-basket should be piled up in Jaye's in-basket and indicated that it would be helpful if you would stop in to the office and get a head start on some of the work that has accumulated. You agreed to stop in today, Saturday, September 6, 1980. At Mr. Davenport's request, Miss Goodbody gathered some reference materials to help you get oriented to the section. She left the material in Jaye's in-basket along with the items that have piled up.

It is now 1:00 p.m., Saturday afternoon. You are in your new office and have three hours to take care of the items that have piled up in Jaye's in-basket. Everyone else is out of the office, and the switchboard is closed so you cannot make any calls. You must work alone, and you have access only to the materials which Miss Goodbody left for you. You want to do well to make a good impression on Mr. Davenport and the others in your department. It is important that you let your subordinates know exactly what you plan to do with each item in the basket, so everything you do or plan to do should be in writing. In going through the items, you can write notes, memos and letters, plan meetings and make decisions. You should also plan all phone calls you intend to make regarding any of the items when you return to your job in one week. You may write directly on the items, or use the supply of stationery which is provided. When using the stationery, clip any notes or letters you write to the items they refer to.

Remember today is September 6, 1980. Your official starting date is Monday, September 8th. However, you will be out of the office your first week with a prior commitment and will not return until Monday, September 15.
COMPENSATION COMMITTEE EXERCISE

INFORMATION PROVIDED PARTICIPANT:

You are a departmental representative on your organization's Compensation Committee. Six employees have been recommended for a discretionary salary increase by their supervisors. Discretionary increases are intended to provide special motivation or recognition. They are not to be seen in special circumstances and are additional to annual salary reviews.

While you would like to grant substantial increases to all the candidates, the profits of the organization do not permit it. There is only $9,000 in discretionary salary-increase funds available for the remainder of the 1980 fiscal (calendar) year.

One of the candidates — Jennifer Brimmer — is from your department. A letter of recommendation is included. Other salary data are given below. You have talked to his (her) supervisor and feel he (she) is particularly strong. You are also under strong pressure from your department to get as much money for this candidate as possible. YOUR TASK DURING THE COMMITTEE DISCUSSION IS TO PRESENT A STRONG CASE FOR YOUR CANDIDATE WHILE AT THE SAME TIME HELPING THE COMMITTEE DE THE BEST ALLOCATION OF THE AVAILABLE FUNDS.

Each of the other committee members will also recommend a candidate from his or her department. Information on these candidates is provided on the following pages. The committee must reach a written decision on in one hour, or no one receives a raise. Today's date is October 8, 1980. This is the last Compensation Committee meeting of the year.

Your objectives:

1. Obtain a large increase as possible for
   Jennifer Brimmer.

2. Aid the committee to make the best use of the available funds.

CANDIDATE INFORMATION

Compensation Committee

Tom McClure, Supervisor

CT: Special Increases

Jennifer Brimmer, Senior Editor/Writer

10/3/80

Jennifer Brimmer is a departmental representative on your organization's Compensation Committee. Six employees have been recommended for a discretionary salary increase by their supervisors. Discretionary increases are intended to provide special motivation or recognition. They are not to be seen in special circumstances and are additional to annual salary reviews.

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1. Obtain a large increase as possible for
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CANDIDATE INFORMATION

Salary Data for Jennifer Brimmer

Current salary: $24,000

Relation of salary to other employees doing roughly the same job with the same responsibility: Upper 1/5

Relation of salary to employees of other companies in the area doing similar work with similar responsibilities: No National Comparison, but Recent Telephone Survey of Local Area Indicates Range of $20,000 to $22,500, Given Comparable Experience.

Date and amount of last increase: 8/1/79, $2,000

Date of employment: 8/1/78

Starting salary: $22,000

Degree(s): BS, MS

Relevant experience: 11 Years

Date of next regular merit review: Past Due

* * * *

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LEE K. FAWCETT PLUMBING COMPANY
Instructions for Participant

You are Russ T. Pype, the foreman at the southside office of the Lee K. Fawcett Plumbing Company. The company does some subcontracting work (mainly with building contractors who construct private homes), but primarily specializes in home-repair plumbing.

There is a general policy to attempt to respond to customer requests during the working day on which they are made. However, many plumbing problems occur during the heavy use periods (early evening and midmorning). In order to respond to the evening problems, the Lee K. Fawcett Company has a telephone answering service which receives calls after working hours. The answering service makes a note of the problem as described by the person making the call and records the time the call was received.

At 6:00 a.m. Mr. Fawcett, the President of the company, reviews all calls made during the previous evening. Based on geographic location, he assigns each of these calls to one of his four offices located throughout the city. He then estimates the time (his estimates include travel time) required to accomplish each of the repairs and the number of people who should go out on each job. He then telephones to each office its particular information dictating the information into telephone tape recorders located at each of the offices. This accomplished, Mr. Fawcett goes back to bed and sleeps until almost noon.

Mr. Fawcett is very service oriented and has established a policy that all work resulting from customer calls received before noon of a working day must be completed by the end of the next working day.

When you arrive in the office, review the personnel list of plumbers in such a way as to accomplish the work in the most efficient manner. Mr. Fawcett grants you your own discretion in scheduling. Each employee has a compact job assignment card. Since all trucks are equipped with radios and since you have a computer terminal around to cover emergency situations, you can move your people around to cover emergencies.

You have 6 plumbers on your crew. Here is a brief synopsis of each person.

Fred Steady — old and reliable. He is a good problem solver.
Curt Swift — very good at plumbing but often slow — particularly at the end of the day.
Smiley” Tyree — a good worker but often late when he is needed.
John Future — a good worker with good people skills. When the organization needs another foreman, John will be the choice.
Billy Dimm — apprentice plumber who has two years’ experience. Will soon end his apprentice period, and you will have to make a decision on whether to qualify him. The company has a lot invested in apprentice training and does not like apprentices to go the full period and not become qualified.

The Union contract calls for the men to work an 8-hour day. A 1-hour lunch period can be scheduled to begin anytime between 11:00 a.m. and 1:00 p.m. Breaks are taken when a job is finished early and need not be scheduled.

Apprentice plumbers are forbidden to work alone. When assigned to a job, they must be working with a journeyman plumber. However, the apprentice plumbers on your crew have sufficient experience to be assigned to a job as a contributing team member, (i.e., for a two-man job, you may assign a journeyman and an apprentice).

As a foreman, you must spend your time both in the office and in the field supervising the work of your subordinates. You generally find that you must spend at least 3 hours per day in the office. The Union contract forbids you from doing any physical work, and you cannot be the sole supervisor of an apprentice.

Today is Wednesday, April 7, 1979. In________ minutes your crew will arrive for work, and you must have their daily schedules worked out for the complete day. Your clerk has just typed the list of jobs left over from yesterday and the morning tape made by Mr. Fawcett.

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INTERVIEW SIMULATION

WORK HABITS

Instructions for Participant

In this exercise, you will have the opportunity to demonstrate how you would handle an appraisal interview situation with a subordinate. You will play the role of a newly appointed (3 months ago) manager of a computer programming unit in a large organization which provides custom software packages to the aerospace industry. You will conduct an interview with Pat Walker, one of your subordinates.

Pat Walker is a programmer-analyst who reports to you. When you came into this department 3 months ago you were impressed with Pat's technical knowledge. Since hired last year, Pat has gained a reputation for being able to write and debug programs quickly. Pat may be your best analyst in this regard. You have told your other programmers to check with Pat when they have a complex job which requires trouble-shooting and in the past Pat has been glad to cooperate. Gradually, however, Pat has become somewhat of a loner. Pat often uses the excuse of being busy, listens half-heartedly, or becomes sarcastic with the other programmer analysts. On one occasion, Pat let Ken Meyer, another analyst, make a mistake that could have been avoided if Pat had helped. In addition to this, Pat has balked at three assignments you have recently made, claiming they were routine and offered no challenge.

Pat's failure to cooperate has you concerned for another reason. You had planned to recommend Pat to management as a candidate for supervisor, but now feel you cannot.

Today's date is December 3, 1980. You have asked Pat to come into your office for an interview. Your goal in the interview is to gain a commitment from Pat to improve job performance in such a way so as to again become a good supervisory candidate. How you do this and what commitment you want to gain from Pat is entirely up to you.

To help you with the interview, the Personnel Department has supplied you with a review of Pat's background taken from the personnel file. You will find this information on the back of this sheet.
You have 30 minutes to prepare for the interview.

Information on Pat Walker Taken from Personnel Files

1. Pat Walker was hired November 19, 1979.

2. Pat is 35 years old, 5'8" and weighs 140 lbs.

3. Pat is married and has three boys and one girl. Since Pat's spouse has been seriously ill for the last 2 years, Pat cannot work night shifts.

4. High school education, majored in graphic arts. Grade average, C.

5. Diploma from State University, majoring in computer sciences. Was in top 10% of class.

6. Attending night school at Community College, studying management and supervision. Grade average, B.

7. Work experience:


8. On July 9, 1980, Pat submitted a request for advancement into supervision to the Personnel Department, listing basic qualifications and "I get along well with people," "I know the job and can get people to work for me," and "I am the best craftsman in my area."

9. Request for advancement was resubmitted November 1, 1980.
Appraisal Information

Pat was given a raise after 6 months on the job in recognition of outstanding performance. Following are specific items cited by the previous supervisor at that time: (1) I have seen very few programmer-analysts as versatile as Pat. (2) Pat sets a good attendance example. (3) Pat practices good housekeeping and suggests improvements. (4) Pat knows as much about computer programming and debugging as anyone I've ever seen--an excellent trouble-shooter. (5) There is never any need to double-check Pat's work. (6) I rely on Pat to get much of the work done in my area. Without Pat, we could not keep up production. (7) The other programmer-analysts often seek out Pat's help or advice. (8) Sometimes does things own way despite other precedents and procedures; however, Pat's way is usually right.

You May Use This Form To Make Notes
You are a member of a team of consultants asked to give recommendations concerning four management problems. Your team is to discuss each problem and come to an agreement on the most appropriate solution to each. You are to make the recommendations as specific as possible. Suggest specific content of discussions. Don’t say, “His supervisor should have a talk with him.”

Anticipate all probable consequences of your recommendations when they are implemented and suggest responses to each.

Assume that your discussion is being tape-recorded, and your recommendations will be transcribed and submitted. You will not have to submit a report in writing but be sure everything that should be in a report is discussed.

Group members should show their understanding of the group’s decision by voting on every recommendation.

1. The head of the training unit at an industrial firm had just administered a final examination to a group of technicians who were taking part of an intensive training. The examination is the final hurdle of the program, as programmed instruction and knowledge as indicators that the trainees do well on the examination with only one out of the 30 trainees do well on the examination because of the special way the test is set. Management has found that those who do not meet standard are immediately dropped from the program and do not receive the benefits of the training. The company has never let the details of the program be known to others outside the company. The assumption that if the employee did not learn the material, the employee cannot learn it the second time. You have just found that Jose, one of the trainees, did not pass the exam and the company has been [redacted]. The company has been emphasizing an affirmative action plan and has hired several workers who are interested in lab positions. They had to look two months before finding another minority applicant. What alternatives are open to the company? Should the organization do? What specifically should be told to Jose?

2. An employee opinion survey revealed a general feeling that management makes decisions without knowing all the facts concerning workers and without caring how the workers are affected. To answer this, management asked each supervisor of non-management employees to appoint one person for a communications meeting. At the luncheon meeting, management told the 80 representatives that it tried to listen to employees’ suggestions but could not ask every worker’s advice on every issue. It was suggested that the best way to be heard is for each employee to let his/her supervisor know how he/she feels, and that way the communication works its way up. The workers countered by saying that the method takes too long, that some supervisors aren’t approachable, and that the message is usually twisted if it ever “reaches the top.” Some of the workers suggested that since they have no union to represent them, management should form some kind of representative body to be consulted by top management. Management has agreed to seriously consider the idea and has asked your advice about this communication problem before committing itself. What action should management take?

3. Stevens Corporation manufactures large conveyor belts for paper-making machines. It takes several days to weave these belts on gigantic looms, and they sell for as much as $5,000 each, depending on size. Business has been going downhill for the past three years—primarily because Stevens’ two competitors have newer model looms and can undersell Stevens. Over the last 10 years, Stevens distributed substantial profits to its stockholders, while its competitors invested in new machines. Now Stevens no longer has any profit to distribute. In fact, it must sell its only subsidiary in order to make...
expenses for this year. The situation is so bad that plans call for the conveyor belt plant to operate at only 60% capacity for much of next year. (The plant has ten looms valued at $200,000 each.) The research and development staff has just developed what they believe to be a totally new concept in conveyor belt-making. In the laboratory, the new process has produced belts faster than they have ever been produced and, best of all, they believe they can convert the existing machines to the new process. They want to try the process out in a production situation. They estimate that it will take six months to convert each loom to the new process and six months to get a true picture of the efficiency of the operation. During conversion, the loom will be inoperable. Your counsel has been sought on how to proceed. What advice would you give?

4. Charles Fenwick, the Sales Manager of the Mentzer Corporation, a small office furniture company, is faced with a dilemma. Six months ago his company announced a completely new product line - office copiers. A radically new copying technique was developed to obtain color copies at less cost than most competitive black and white copiers. Although inexperienced in this line, Charles' staff never worked harder and have already obtained orders for one-third of the copiers. Most sales were made by demonstrating the copier to potential customers. Charles told Fenwick that the actual copies had indicated the company's picture detail, trueness of color, and machine reliability was not up to the standard they had shown. Charles said he needed help in telling the difference and should Fenwick do?

Feel Free To Make Notations on this Sheet
Appendix C

Assessor Training
Memo--Copy

To: Subject: Assessor Training Session
From: Date: January 6, 1978

As you know I have been working on new ways we can help management improve the selection of persons appointed to supervision. One result of this work is a program we are currently piloting called "Management Skills Workshop." Its purposes are to:

(1) Help nonmanagement employees learn about first-level management work, the skills required, and their own present levels of skill.

(2) Provide our managers with readings on participant skills as an added input in appointing new members of management.

This program is based on the Assessment Center Method, similar to our Career Development Workshops, but operates with different objectives and much improved methods.

You are invited to become acquainted with this program by attending an Assessor Training Session the week of January 23rd (details below). During this week, we will overview the program, study the various exercises contained in it, and practice the observation and recording of behaviors. Those who expect to be involved in future programs as observers should plan to attend all week. Others are welcome to attend as much as they can be with us.

Program: Assessor Training

Time: 8:15-4:30; some homework
Date: January 23-27, 1978
Place: Conference Center
Orientation/Assessor--Training Schedule

**Monday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:15 - 9:30</td>
<td>Introduction, Description, Questions</td>
</tr>
<tr>
<td>9:30 - 10:00</td>
<td>Read, Discuss &quot;Using Part I&quot;</td>
</tr>
<tr>
<td>10:00 - 10:30</td>
<td>Behavior Example Exercise</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>Read, Discuss Compensation Committee Exercise</td>
</tr>
<tr>
<td>11:00 - 12:00</td>
<td>Observe Tape and Take Notes--Use Model, No Model, Replay</td>
</tr>
<tr>
<td>12:00 - 1:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:00 - 1:45</td>
<td>Discuss Dimensions, Dimensions Observable</td>
</tr>
<tr>
<td>1:45 - 2:45</td>
<td>Take, Discuss Behavior Classification Exercise</td>
</tr>
<tr>
<td>2:45 - 3:15</td>
<td>Read, Discuss &quot;Using Part III&quot;</td>
</tr>
<tr>
<td>3:15 - 3:45</td>
<td>Take, Discuss Behavior Rating Exercise</td>
</tr>
<tr>
<td>3:45 - 4:00</td>
<td>Read Part III of Nancy's Report</td>
</tr>
<tr>
<td>4:00 - 4:30</td>
<td>Read, Discuss &quot;Using Part IV&quot; and Review Report Writing Process</td>
</tr>
</tbody>
</table>

**Evening** Begin In-Basket

**Tuesday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 8:15</td>
<td>Questions and Review</td>
</tr>
<tr>
<td>8:15 - 9:00</td>
<td>Observe Compensation Committee on Videotape</td>
</tr>
<tr>
<td></td>
<td>(1/2 Charlie, 1/2 Jose, all Pat)</td>
</tr>
<tr>
<td>9:00 - 10:00</td>
<td>Write Reports (Charlie and Jose) Use &quot;Additional Guides&quot;</td>
</tr>
</tbody>
</table>
10:00 - 11:15  Discuss and Critique Reports
11:15 - 12:00  Introduce Interview Simulation
12:00 - 1:00  Lunch
1:00 - 2:00  Discuss Interview Simulation
             Instructions, Role Player
             Observer's Tasks
             Report
2:00 - 3:00  Introduce, Discuss Management Problems
             Exercise
3:00 - 4:30  Work on In-Basket Items
Evening  Finish In-Basket

Wednesday

8:00 - 8:15  Describe How In-Basket Is Analyzed
8:15 - 9:00  Read Instructions for Assessor (pages 8 through 15,
             looking only at required dimensions); Read Model
             Report (pages 4 through 7); Discuss
9:00 - 12:00  Discuss "Possible Courses of Action"
12:00 - 12:45  Lunch
12:45 - 2:45  Review Practice Subject In-Basket; Prepare for
             In-Basket Interview (fill out columns, prepare
             questions)
2:45 - 3:00  Break
3:00 - 4:00  Observe In-Basket Interview on Tape
Evening  Finish In-Basket Reports, if Necessary
### Thursday

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 9:30</td>
<td>Discuss, Critique In-Basket Reports</td>
</tr>
<tr>
<td>9:30 - 10:30</td>
<td>Discuss Analysis Exercise</td>
</tr>
<tr>
<td></td>
<td>What Participant Does</td>
</tr>
<tr>
<td></td>
<td>What Observers Do</td>
</tr>
<tr>
<td></td>
<td>Content of Exercise</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>Observe Practice Subject Tape</td>
</tr>
<tr>
<td>11:00 - 12:00</td>
<td>Write Reports</td>
</tr>
<tr>
<td>12:00 - 1:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:00 - 2:00</td>
<td>Discuss, Critique Reports</td>
</tr>
<tr>
<td>2:00 - 2:30</td>
<td>Introduce Supervisory Exercise</td>
</tr>
<tr>
<td>2:30 - 3:00</td>
<td>Read &quot;Role of Assessor&quot; in Observer Discussion</td>
</tr>
<tr>
<td>3:00 - 4:00</td>
<td>Mock Observer Discussion Based on:</td>
</tr>
<tr>
<td></td>
<td>(1) Analysis Exercise</td>
</tr>
<tr>
<td></td>
<td>(2) In-Basket</td>
</tr>
<tr>
<td>4:00 - 4:30</td>
<td>Review, Questions</td>
</tr>
</tbody>
</table>
GROUP DISCUSSION
Assessor Report Form (Parts I and II)

Name of Exercise __________________ Assessor's Name __________________ Date __________

Part I Behavior Observations (To be filled out during planning period and group discussion)

Record chronologically behaviors observed during planning period and in discussion, including presentation of ideas and influence on final decisions.

Participant's Name ____________________ Participant's Name __________________
Part IV (To be completed prior to assessor discussion)

A. Rankings: Combined Assessors ______ Combined Peers ______ Self ______ (out of ______ participants)

B. Briefly describe participant’s role in the discussion for use in orienting the other assessors to the discussion. Give the role played by the participant, the group’s final decisions and the participant’s role in the “group process.”

C. Summarize major strengths.

D. Present report in final assessment discussion in this order:

<table>
<thead>
<tr>
<th>Assessor’s Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Assessors Observing Discussion</td>
<td></td>
</tr>
</tbody>
</table>

(1) Participant’s name and name of exercise
(2) Rankings (Part IV A)
(3) Participant’s role in discussion (Part IV B)
(4) Behavior by dimensions (Part III)
(5) Summary of major strengths and weaknesses (Part IV C)
Appendix D

Announcement of Management Skills Workshop
Memo--Copy

To: [Redacted]

Subject: Management Skills Workshop

From: [Redacted]

Date: March 22, 1978

As you are all, no doubt, aware, our field has changed dramatically in the recent past. Public concerns, the regulatory environment, increasing levels of sophistication, and changes in orientation have all had a tremendous impact. Responding to these and anticipating further changes is and will remain one of our big concerns. An effective organizational structure and the maximum utilization of individual talents is, therefore, absolutely essential to successfully deal with the future.

With this background in mind, several members of our staff and the Employee Development and Planning unit have designed a program entitled "The Management Skills Workshop" which has the following objectives:

(1) Provides employees the opportunity to make known their career interests and provides to them information about the characteristics required to be successful, especially in a management role.

(2) Provides feedback to management on each participant's skills and abilities.

Attached, is a more complete information package on the Workshop.

Current plans are to hold the first session of this workshop the week of April 17, 1978. Subsequent sessions will be held in the future, based on demand. It is our intention to provide each interested individual the opportunity to participate in this program. Participation is, of course, voluntary, although you are encouraged to give it strong consideration.

Should you have any questions, after reading this memo and the attached information, please feel free to address them to staff members, or myself at any time. Your interest in this program should be indicated to me, on the attached form, by April 3, 1978.
Management Skills Workshop

A relatively new personnel tool, called the Management Skills Workshop, has proven itself a practical and more accurate method as a predictor of future supervisory and managerial effectiveness. In 1973 the list of companies using this technique was about 300 long. In 1975 the list was over 1,000 long. In 1977, our company added its name to this expanding list of innovative companies taking advantage of the inherent strengths of this method of identifying supervisory potential.

Our unit, in conjunction with the Employee Development and Planning Unit, intends to utilize this program both for the obvious advantages of all of us, and as a pilot program for the Corporation. Other areas of the company have also administered a similar program.

Summary of Objectives

For the Company:

(1) Help identify individuals with high growth potential for future positions, especially supervisory.

(2) Increase our ability to evaluate relevant skills which can be used to select and place personnel to the best advantage of the company.

(3) Help identify the kinds of training and development activities which will be most effective in developing talents of current employees.

For the Participants:

(1) Allow participants to verify their expectations about their readiness to assume new and/or supervisory responsibilities.

(2) Demonstrate to participants that they will be given consideration for future promotional opportunities.

(3) Stimulate participants to initiate programs of self-development as appropriate, based upon mutual involvement of the participant and the company.
What does the Workshop do?

What the Workshop does is match the skills required for successful performance with the personal characteristics of available candidates. We begin by describing the supervisory position—not in terms of activities performed, but in terms of necessary skills which can be observed (called "dimensions"). Examples of these skills may include:

1. Effectiveness in guiding a group to accomplish a task.
2. Effectiveness in getting ideas accepted.
3. Ability to reach logical conclusions based on evidence at hand.
4. Readiness to make decisions and judgments.
5. Actively influencing events rather than passively accepting; being a self-starter.
6. Ability to pick out important information in oral communications.

These are a few of the many skills available for observation and measurement to help predict future success in a particular position.

How do we measure the skills?

Once the list of skills necessary for success is developed, a group of exercises (known as simulations), are designed to bring forth the behaviors we are attempting to measure. Picture a pilot flying a 747 simulator. Trained observers are studying the candidate's actions to determine how successful this individual would be if flying a real 747. The results of the simulation helps determine future necessary training efforts for that individual, and whether or not that individual would ever be able to be a successful 747 pilot.

A Workshop for participants simulates actual work related problems and situations which would be encountered in a supervisory position. The participant must handle these situations under the watchful eyes of specially trained observers. These observers record the behavior they observe, then assess it according to the different skills identified as critical for success in a supervisory position. After all of the data has been accumulated and discussed, overall evaluation
is made of the individual participants. These evaluations are made by the total group of trained observers.

A little more on "simulations"

During two days at the Center, you will be performing realistic work operations. For example, you will work with other participants in "conference type" meetings. Your group would be engaged in solving problems similar to those handled by supervisory people. You will also work alone in other supervisory situations in which you will perform as a supervisor analyzing and handling supervisory problems.

Who will the observers be?

Observers will be current members of our professional and supervisory staff, and one individual from the Corporate Employee Development and Planning Unit.

The observers will be specially trained in the conduct of the program and the skills required to arrive at an accurate evaluation.

Are the results accurate?

There is nothing mysterious about the process. Observation and evaluation of skills are currently being made every day. By designing special circumstances and situations, the Workshop only intensifies this process. By placing participants in situations similar to the ones which they would be required to perform on another job, the process is made more relevant. By training the observers, giving them a method to use in observing relevant skills, by providing them with a procedure to use in their analysis of the individual behavior, and by subjecting all participants to the same treatment, the odds for the accurate prediction of future job successes are significantly improved.

Who will tell you about the results?

The results of the Workshop are delivered to the candidate in person (and in confidence) by the Employee Development and Planning Unit (Program Administrator). Time is allowed for an in-depth discussion.
between the Administrator and the candidate. The analysis provided by the Workshop provides both the employee and management insight as to the probable success of the employee on a supervisory position.

What are all the uses made of the Workshop report about yourself?

The report will not become a permanent part of your personnel file. These reports will be kept in a separate "training file" and destroyed after two years have lapsed.

Can you do anything to prepare yourself?

Not really. Returning the form indicating your interest in the first step you need to take. The Workshop results will determine your readiness for assuming increased training responsibilities.

Will participation in the Workshop help you or hurt you?

You should benefit from this experience regardless of the outcome. You will find out how well suited you are for taking on supervisory responsibilities because you actually perform as a supervisor in realistic management situations.

You will know the areas in which you need further development, and you will be able to work toward their improvement. The experience may be just what you need to get started on a self-improvement program. Conceivably, it could lead to new responsibilities.

How do you apply for the Workshop?

The first step is to fill in the form which lets us know you are interested. These forms will be used to plan sessions for interested employees.

You will be notified of the results of this application process.

Will you be paid for your time at the Learning Center?

Attendance at the Center will be considered entirely voluntary on your part. You will be paid normal straight time hourly wage for
each day at the Center, the time will not be considered worked for overtime purposes, and you will be scheduled off your regular job the days you are at the Center.

When is the Workshop program going to start?

The Workshop which takes two days for participants and observers, will start during the week of April 17, 1978.

Is it mandatory that an employee participate in order for future position?

No, the Workshop is not mandatory, but it will be far more difficult for an individual to be promoted unless they have successfully completed the Workshop and the subsequent Training and Development Program. When a vacancy occurs it will be posted. Individuals who have not participated in the program will naturally have less of a chance to be chosen for that opportunity, since their skills and abilities will be less well known to Management.

Will seniority be a factor?

Very little. Length of time on the job may help an individual in recognizing successful behavior and to have acquired certain skills. This will certainly benefit an individual during Workshops, but these skills may have been developed on any position and not necessarily at our company. Keep in mind the Workshop will determine present skill level of participants most of which are important for future assignment. Part of the program is designed to help both the Company and the participant know how the participant compares when measured against broader scope supervisory and administrative assignments than they have thus far faced.

If you show an acceptable degree of ability - will you be promoted?

Participation in the Program does not guarantee or imply your selection for a supervisory position. First of all, there must be a vacancy. Then you, along with other qualified candidates, will be considered, and the best qualified person selected. Similarly, the Company have no firm obligation to bid for a position when it is posted.
To: 

Subject: Management Skills Workshop

From: 

Date:

I am interested in the program and wish to participate in the Workshop.

Signature
Appendix E

Pilot Operation
Management Skills Workshop

Tuesday

Program Introduction
8:30 Room 1-1 All

Management Problems Discussion
9:00 Room 1-1

Interview Simulation Preparation
10:30 Room 1-1 All Participants

Lunch
11:15 Research Cafeteria

Interview Simulation (Interviewer) (Pat Walker) Observer
12:00 Office 1 A X 2
Office 2 B Y 3
12:30 Office 1 C X 1
Office 2 D Y 2
1:00 Office 1 E X 3
Office 2 F Y 1

In-Basket Problem
1:30 Room 1-1 All Participants
Wednesday

Scheduling Problem

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Interviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Room 1-1</td>
<td>A</td>
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<td>B</td>
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<td></td>
<td>C</td>
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<tr>
<td>9:30</td>
<td>Room 1-1</td>
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<td>E</td>
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<td>F</td>
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</table>

In-Basket Interview

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Interviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Office 1</td>
<td>A 1</td>
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<td>Office 2</td>
<td>B 2</td>
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<tr>
<td></td>
<td>Office 3</td>
<td>C 3</td>
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<tr>
<td>9:45</td>
<td>Office 1</td>
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<td></td>
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<td>E 1</td>
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<td>F 2</td>
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</table>

Lunch

11:00 Research Cafeteria

Scheduling Interview

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Interviewer</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Office 3</td>
<td>C 2</td>
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<td>1:15</td>
<td>Office 1</td>
<td>D 1</td>
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</table>

Compensation Problem

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<td>E 1</td>
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<td>F 1</td>
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</tbody>
</table>
Wednesday (continued)

Supervisory Characteristics Problem

3:30 Room 1-1 All Participants

4/11/78
GROUP EXERCISE
Participant Report Form

NAME ____________________________ DATE ____________

Name of Exercise _______________________

How satisfied were you with your group's performance?

( ) Very satisfied, ( ) Satisfied, ( ) Slightly dissatisfied, ( ) Very dissatisfied.

Please indicate the degree to which you feel the individual members contributed to the overall effectiveness of the group.

Place the name of the person you feel performed the best and contributed most to the group's effectiveness on the line below, next to the number "1." Then place the name of the person you feel performed worst and contributed least to the group's effectiveness on the line next to the number "6" (or 5, 4, or 3 — depending on the total number of members of your group). Then place the name of the person you feel performed second best on line "2," etc. Continue until you have ranked all your group members, including yourself. You may not place more than one name on any line.

1. ____________________________ (Greatest Contribution)
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________ (Least Contribution)

How did the person you ranked "1" ____________________________
How did the person you ranked last ____________________________

Briefly describe your own performance in the group.
How did you contribute to the exercise?

________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

How did you detract from the exercise?

___________________________________________________________

___________________________________________________________

Did anything or anyone hinder your performance and make you less effective than you could have been? If so, explain.

___________________________________________________________

___________________________________________________________

Answer the following questions about individuals in your group. Don’t hesitate to name yourself where appropriate.

Who was the quickest to understand the exercise?

___________________________________________________________

Who was the leader?

___________________________________________________________

Who aided most in planning strategy?

___________________________________________________________

Who disrupted the exercise?

___________________________________________________________

Who worried most about the feelings of others?

___________________________________________________________

Who paid the most attention to time?

___________________________________________________________

If the exercise was a game, answer the following questions:

How many points or dollars did your group earn?

___________________________________________________________

Where did your group rank in terms of overall performance?

(First, second, etc., if more than one group.

___________________________________________________________

How would members of your group (including yourself) rate the group composed of the best people management could assemble to do the exercise? Write your rating for each person in your group on the lines provided. Think of the ideal group. Rate each person listed using the rating below as a guide. No one person can have the same rating.

5 – Would do an excellent job.
4 – Would do an above average job.
3 – Would do an average job.
2 – Would do a below average job.
1 – Would do a poor job.

<table>
<thead>
<tr>
<th>Group Member</th>
<th>Rating (1–5)</th>
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</tbody>
</table>

# RANKING SUMMARY FORM

**Date:**

**Assessors:**

**EXERCISE:**

### ASSESSOR RANKINGS:

<table>
<thead>
<tr>
<th>Name</th>
<th>Assessor No. 1</th>
<th>Assessor No. 2</th>
<th>Assessor No. 3</th>
<th>Total</th>
<th>Ranking By All Assessors*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td>6.</td>
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</tbody>
</table>

### PARTICIPANT RANKINGS:

When filling in the participants' names, assign the same ranking as "1" along the side of the chart. Do this with all the numbers. The numbers on the left of the chart are for the assessors doing the ranking; those at the side are for the participants being ranked.

<table>
<thead>
<tr>
<th>Name</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Total</th>
<th>Ranking By Other Participants*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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</tbody>
</table>

* Rerank "Total" column by placing a "1" by the smallest number, a "2" by the next smallest number, etc.

** ( ) is a self-ranking. Do not include in totals or averages.

**RECORD APPROPRIATE ASSESSOR RANKING (LAST COLUMN OF FIRST TABLE) AND PARTICIPANT RANKINGS (LAST COLUMN OF SECOND TABLE) ON PART IV-A OF THE ASSESSORS REPORT FORM FOR EACH PARTICIPANT.**

DIMENSION SUMMARY FORM

Date ______________________

Participant ____________________________________________

Assessor ________________________________________________

<table>
<thead>
<tr>
<th></th>
<th>Assessor</th>
<th>Peer</th>
<th>Self</th>
<th>Out of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation Committee</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Management Problems</td>
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</tbody>
</table>

A report on each exercise will be read by an assessor. Record the assessors' rating of each dimension under the column labeled "assessors." Listen to the behaviors and take brief notes in the space provided for the exercise below each dimension reported. The notes need to be only very short "mind joggers." Record your rating of the dimension under the column labeled "your." Don't be overly influenced by the rating assigned by the assessor. Use your judgment based on the behavior reported.

**Oral Communication Skill**

Effectiveness of expression when presenting ideas or tasks to an individual or group situations (includes gestures and nonverbal communication).

<table>
<thead>
<tr>
<th></th>
<th>Ratings Assessor</th>
<th>Your</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Management Problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Compensation Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Analysis Exercise (L. K. Fawcett)</td>
<td></td>
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<tr>
<td>4. Interview Simulation</td>
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</tr>
</tbody>
</table>

Notes concerning your overall rating: Your overall rating __
### Written Communications Skill

**Ability to express ideas clearly in writing in good grammatical form.**

<table>
<thead>
<tr>
<th>1. In-Basket</th>
<th>Assessor</th>
<th>Your</th>
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<tbody>
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</tbody>
</table>

**Other Notes:** Your overall rating __

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### Initiative

**Actively influencing events rather than passively accepting; self-starting. Takes action beyond what is necessarily called for. Originates actions rather than just responding to events.**

<table>
<thead>
<tr>
<th>1. Management Problems</th>
<th>Assessor</th>
<th>Your</th>
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<tr>
<th>2. Compensation Committee</th>
<th>Assessor</th>
<th>Your</th>
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<thead>
<tr>
<th>3. In-Basket</th>
<th>Assessor</th>
<th>Your</th>
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</tbody>
</table>

**Notes concerning your overall rating:** Your overall rating __

---

### Leadership

**Effectiveness in getting ideas accepted and in guiding a group or an individual toward task accomplishment.**

<table>
<thead>
<tr>
<th>1. Management Problems</th>
<th>Assessor</th>
<th>Your</th>
</tr>
</thead>
<tbody>
<tr>
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<thead>
<tr>
<th>2. Compensation Committee</th>
<th>Assessor</th>
<th>Your</th>
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</table>

<table>
<thead>
<tr>
<th>3. Interview Simulation</th>
<th>Assessor</th>
<th>Your</th>
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</table>

**Notes concerning your overall rating:** Your overall rating __
Sensitivity

Skill in perceiving and reacting to the needs of others. Objectivity in perceiving impact of self on others.

1. Management Problems
2. Compensation Committee
3. Interview Simulation
4. In-Basket

Ratings
Assessor Your

Notes concerning your overall rating: Your overall rating _____

Stress Tolerance

Stability of performance under pressure and opposition.

1. Compensation Committee
2. Analysis Exercise (L. K. Fawcett)
3. Interview Simulation

Ratings
Assessor Your

Notes concerning your overall rating: Your overall rating _____

Planning and Organization

Ability to efficiently establish an appropriate course of action for self and/or others to accomplish a specific goal, make proper assignments of personnel and appropriate use of resources.

1. Analysis Exercise (L. K. Fawcett)

Ratings
Assessor Your

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Planning and Organization (continued)

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
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</table>

2. In-Basket

3. Interview Simulation

Notes concerning your overall rating: Your overall rating

Management Control

Skill in establishing procedures to monitor (or regulate) processes, tasks, or the activities of subordinates. Ability to evaluate the results of delegated assignments and projects.

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
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</table>

1. Interview Simulation

2. In-Basket

Notes concerning your overall rating: Your overall rating

Problem Analysis

Skill in identifying problems, securing relevant information and identifying possible causes of problems.

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
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<tbody>
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</tbody>
</table>

1. Management Problems

2. Analysis Exercise (L. K. Fawcett)

3. Interview Simulation

4. In-Basket

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Problem Analysis (continued)

Notes concerning your overall rating: Your overall rating ___

---

**Judgment**

Ability to develop alternative solutions to problems, to evaluate courses of action and reach logical decisions.

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
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<tbody>
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</tbody>
</table>

1. Management Problems

2. Analysis Exercise (L. K. Fawcett)

3. Interview Simulation

4. In-Basket

---

Notes concerning your overall rating: Your overall rating ___

---

**Decisiveness**

Readiness to make decisions, render judgments, take action, or commit oneself.

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
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</tbody>
</table>

1. Management Problems

2. Interview Simulation

3. In-Basket

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Notes concerning your overall rating: Your overall rating ___

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### Creativity

Ability to recognize, generate, and/or accept imaginative solutions and innovations in business situations.

<table>
<thead>
<tr>
<th></th>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In-Basket</td>
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<tr>
<td>Other Notes:</td>
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</tbody>
</table>

**Your overall rating:**

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### Work Standards

Desire to do a good job for the job's own sake.

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<tr>
<th></th>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
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<tbody>
<tr>
<td>1. Analysis Exercise (L. K. Fawcett)</td>
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<td>2. Interview Simulation</td>
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<tr>
<td>3. In-Basket</td>
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**Notes concerning your overall rating:**

**Your overall rating:**

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### Management Identification

Ability to readily identify with and accept the problems and responsibilities of management.

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<th></th>
<th>Ratings</th>
<th>Assessor</th>
<th>Your</th>
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<tbody>
<tr>
<td>1. Management Problems</td>
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<td>3. In-Basket</td>
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</table>

**Notes concerning your overall rating:**

**Your overall rating:**
Organizational Sensitivity

Skill in perceiving the impact and implications of decisions or actions on other components of the organization.

1. Management Problems

2. In-Basket

---

Notes concerning your overall rating: Your overall rating ___

Development of Subordinates

Efforts to maximize human potential of subordinates through training and development activities related to current and future jobs.

1. Interview Simulation

2. Analysis (L. K. Fawcett)

---

Notes concerning your overall rating: Your overall rating ___
# Data Summary Matrix

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Observer 1</th>
<th>Observer 2</th>
<th>Observer 3</th>
<th>Administrator</th>
<th>Consensus Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Communication Skill</td>
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<td>Written Communication</td>
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<td>Initiative</td>
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<td>Leadership</td>
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<td>Sensitivity</td>
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<td>Stress Tolerance</td>
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<td>Planning and Organizing</td>
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<td>Management Control</td>
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<td>Problem Analysis</td>
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<td>Judgment</td>
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<td>Creativity</td>
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</table>

Candidate: _______________________

Observer 3 Administrator Consensus Rating

**Note: The matrix contains columns for Observer 1, Observer 2, Observer 3, Administrator, and Consensus Rating, but the actual data is not provided in the image.**
### Data Summary Matrix (continued)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Observer 1</th>
<th>Observer 2</th>
<th>Observer 3</th>
<th>Administrator</th>
<th>Consensus</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Standards</td>
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<td>Management Identification</td>
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<td>Organizational Sensitivity</td>
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<td>Development of Subordinates</td>
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</table>
Management Skills Workshop

The candidate's overall work in the program showed strengths in a number of key areas. Her work also indicated there are several dimensions on which development efforts might be desirable. It must be kept in mind that this analysis is principally geared toward future development and has little, if any, relevance to current job performance.

In the Management Skills Workshop, she worked on six exercises, each a challenging one in which she was required to use and display a variety of skills. Her work was observed directly by trained observers in five of these exercises: Management Problems, Compensation Committee, Analysis, Interview Simulation, and the In-Basket.

Observers recorded specific behaviors in these exercises, subsequently analyzed them in detail, and as a group arrived at conclusions on sixteen Dimensions seen as critical to success in Management. Based on her work in this program, the results on each Dimension are presented below:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Result</th>
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<tbody>
<tr>
<td>Oral Communication Skill</td>
<td>Mixed readings</td>
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<tr>
<td>Written Communication Skill</td>
<td>Strength (+)</td>
</tr>
<tr>
<td>Initiative</td>
<td>Development area</td>
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<tr>
<td>Leadership</td>
<td>Mixed readings</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Mixed readings</td>
</tr>
<tr>
<td>Stress Tolerance</td>
<td>Strength</td>
</tr>
<tr>
<td>Planning and Organization</td>
<td>Strength (+)</td>
</tr>
<tr>
<td>Management Control</td>
<td>Strength</td>
</tr>
<tr>
<td>Problem Analysis</td>
<td>Strength</td>
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<tr>
<td>Judgment</td>
<td>Strength</td>
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<tr>
<td>Decisiveness</td>
<td>Strength</td>
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<tr>
<td>Creativity</td>
<td>Strength</td>
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<tr>
<td>Work Standards</td>
<td>Strength</td>
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<tr>
<td>Management Identification</td>
<td>Strength</td>
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<tr>
<td>Developmental Ideas Discussed</td>
<td>Reactions &amp; Comments</td>
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<td>-------------------------------</td>
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<tr>
<td><strong>Planning &amp; Organization</strong></td>
<td>Overall Result: Strength (+)</td>
</tr>
</tbody>
</table>

**Exercise Examples:**

**Analysis**
- Assigned plumbers to jobs by type of job, speed, urgency of job
- Scheduled foremen in office early and late in day, attended jobs 6, 12, 16, 11, 15--large industrial jobs
- Motorhome job leftover
- Job 11, two for two versus two for three hours
- Job 15, two hours initially scheduled, corrected in phase 2

**In-Basket**
- Said separated items into immediate and later categories, also prioritized by problem, unit involved as much as possible. In answering those needing immediate attention, emphasized directions to secretary had to be complete and explicit
- On item 4 gave plan of action to GP
- On item 14 clear instructions on Apex request
- On calendar set up three meetings with different sections to discuss details
- Numerous meetings and subjects noted on calendar
Interview Simulation
- Developed good outline for interview, planned a questioning approach, stuck to outline
- Investigated Pat's goals, management concerns, and concerns over routine jobs

Sensitivity

Exercise Examples:

Management Problems
- Suggested a second chance be given to Jose
- Was withdrawn much of the time and did not participate
- Argued with Roger on policy regarding second application, "It doesn't say that!" "It isn't clear!" in annoyed tone of voice
- "No, we have to vote"

Compensation Committee
- Spoke in raised voice, used argumentative phrases
  - "It's ridiculous"
  - "Don't interrupt"
  - "You are being too dogmatic"
  - "You are so Ph.D. oriented"
  - "You don't have to be so cynical"
  - "Be objective"
- One sensitive comment to Gene: "Do you not concur with the write up?"
Interview Simulation

- Began abruptly without introduction, whole interview lacked warmth
- Ignored Pat's concern about this interview being for promotion
- Did compliment Pat on reports, quality of work
- "What is your reaction to ..."
- "How do you feel about being a supervisor?"
- Did not really explore employee's problem or understand employee's point of view, interview was tell-and-sell, only nine minutes long

In-Basket

- Did not feel responsibility for secretaries, "they have a lot of gripes"
- Saw it as her job to "create work to keep people busy" and out of trouble
- Felt she could not count on her employees to support her
- Letters and memos were nicely written with polite phrasings
- Would investigate to see if office romance bothered anyone before taking action

Overall Result: Strength

Exercise Examples:

Management Problems

- Opened the discussion with a suggestion "shall we take one at a time?"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
- Several times made the opening comment after group read a problem

- Was adept at giving several alternative solutions to problems

- "Maybe Jose could apply for another job with the company"

Compensation Committee

- "Look at her potential"

- "Why don't we give 500 to say we're interested"

- "Let's start with Sarah first"

- "He can be reclassified"

- "Degree - about a 10 on the scale"

Interview Simulation

- Shifted shock of expected promotion to Pat, by discussing performance problem immediately

- Regained control of interview and completed goals outlined

In-Basket

- Sent memo to Luntz' secretary delegating report on absences

- Set up meeting with two other managers on open secretarial position to encourage early filling

- On request for temporary secretary, refused request and suggested an outside agency be contacted

Leadership

Overall Result: Strength

Exercise Examples:

Management Problems

- Suggested three looms be converted in initial change over, group accepted
- Suggested Jose's reapplication, group accepted

- Suggested employees should choose own representatives, group accepted

- Quietly made several effective suggestions, other group members supported these (probably would have been dropped unless others pushed the ideas)

Compensation Committee - "We are not going equal, we are going by qualifications" - group accepted

- "I think these are enough to look at"

- "Let's start with Sarah first" - on parameters, group accepted

- "I really think we have a problem, we have about 15 minutes"

- "I don't think that scale basis is going to work," group accepted

- "Roger I agree, but I would say 1500 also," group accepted

- "I don't think we can go 1800," group accepted

Interview Simulation - Interviewer initially surprised by promotion aspect, countered by bringing up performance problem and regained control

- Problem was not fully explained, nor was it fully investigated

- Leadership approach was by "tell and sell"
- "It would seem that it isn't going as smoothly"
- "I've been a bit concerned about"
- Pat felt as though a solution was offered, left feeling good
- Interview was very brief, about seven minutes
Management Skills Workshop

Please help us evaluate and improve this program by answering the following questions. Please be as detailed as possible.

Do you think this program (and feedback) will be helpful to employees in understanding management work, the skills required and their levels of skill?

Comments:

What parts of the program were most valuable?

Comments:

What parts were least valuable?

Comments:

Any reactions to particular exercises?

Management Problems Discussion
In-Basket + In-Basket Interview
Interview Simulation w/ "Pat Walker"
Lee K. Fawcett + LKF Interview
Compensation Committee Discussion
Supervisory Characteristics Exercise

General Comments:

Name __________________________________________
(Optional)