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An Analysis of the Decision-Making Process Among Selected Suburban Chicago High School Principals and Selected Middle Management Executives

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AN ANALYSIS OF THE DECISION-MAKING PROCESS

AMONG SELECTED SUBURBAN CHICAGO HIGH

SCHOOL PRINCIPALS AND SELECTED

MIDDLE MANAGEMENT EXECUTIVES

by

Margaret Boyian Lundquist

A Dissertation Submitted to the Faculty of the School of

Education of Loyola University of Chicago in

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for the Degree of Doctor of Education

January

1982

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Loyola University of Chicago

AN ANALYSIS OF THE DECISION-MAKING PROCESS

AMONG SELECTED SUBURBAN CHICAGO HIGH

SCHOOL PRINCIPALS AND SELECTED

MIDDLE MANAGEMENT EXECUTIVES

Statement of the Problem

How do middle management executives in industry and in
schools apply the five steps of a decision-making model to
their decision making?

Purpose

The purpose of this study is to analyze the decision-
making process of middle management executives in terms of a
model derived from the professional literature. The execu-
tives represented suburban high schools and service indus-
tries so that a comparison of the two groups according to the
model can be considered as a secondary purpose. Specifically,
the purposes of the study can be stated as:

1. To apply the factors in the decision-making process
    identified by school and business administrators to
    an accepted model derived from the literature.

    The model used for this dissertation follows:

        1. Diagnosis
        2. Discovering alternative solutions
        3. Analyzing and comparing alternatives
        4. Selecting the plan to follow
        5. Evaluation

2. To identify those steps in the model which are most difficult to implement by the sample population.

3. To compare the two groups of administrators on the basis of problems and issues encountered in applying the model.

4. To recommend procedures relevant to the decision-making model to improve its applicability.

Procedure

A) The literature was surveyed to determine relevant findings on the topic of decision making. The literature explored represented education and industry.

B) The sample consisted of twelve high school principals and twelve middle manager positions in a service industry. The sample was drawn from suburban Cook County locations.

C) A telephone survey was made of suburban high school principals and middle management executives in large diversified industries to determine whether they meet the criterion of three years experience and whether they are willing to participate in the study.

D) An interview guide was used to derive responses which were analyzed relative to the structure of the decision-making model used as a frame of reference.

Conclusions

Major Conclusions for Both Groups

1. Step One (Diagnosis) - In diagnosing a problem subjective judgment is the primary and most frequently mentioned criterion.

2. Step Two (Discovering Alternative Solutions) - The data revealed little evidence that alternative solutions are sought.

3. Step Three (Analyzing and Comparing Alternatives) - Since few alternative solutions are discovered by the respondents their analysis is generally limited to solution which relate to financial, time, and legal consequences.

4. Step Four (Select a Plan to Follow) - No systematic approach to the selection of a plan to follow is evident.

5. Step Five (Evaluation) - In evaluating decisions made the reliance is on subjective criteria rather than on a systematic approach to evaluation.

In addition to the major conclusions for each Step several other conclusions can be stated:

1. There are only minor differences in the application of the model reported by the middle managers and principals.

2. Recognition and application of affective concerns are common in the decision making of the middle managers and principals.

3. Middle managers and principals are comfortable in the way that they make decisions.

4. No evidence or worry about pitfalls in decision making emerged from either group.

5. The authority of the position is well recognized by respondents of both groups.

6. Recognition of hierarchy is clear and is followed even with the subjective elements noted before.

7. Indications of potential communication problems exist in business and in school.

8. Use of the computer is widespread but data received are basic.

9.. Research when used is limited in scope. Research on staff development, motivation, and other personnel matters is not used.

10. Brainstorming is used frequently and is open ended but the results do not play an important part in the final decision.

11. Participatory decision making is misunderstood.

Recommendations

1. Apply the knowledge of a decision-making process to decision making.

2. Keep all key persons in a hierarchy well informed.

3. Expand the use of research.

4. Expand the use of computers.

5. Keep current in the literature of decision making.

ACKNOWLEDGEMENT

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The author is deeply grateful to her father, Charles, her mother, Rose, her sister, Carol, and brother-in-law, Gary, for the faith they had in her and the unfailing support they gave her throughout her graduate work. Her mother also deserves a special thanks for typing this dissertation.

Lastly, the author is deeply indebted to her husband, Cole, for his kindness, patience and moral support throughout her graduate studies.

VITA

Margaret Boyian Lundquist is the daughter of Charles and Rose (Moughamian) Boyian and the sister of Carol Boyian Waldman. She was born in Evanston, Illinois, on April 30, 1951. She married Cole David Lundquist, M.D. on September 27, 1980.

Her elementary and secondary education was obtained in the public schools of Chicago, Illinois, where she graduated in 1969. She received a Bachelor of Arts degree in English from the University of Illinois in January, 1973, and a Master of Arts degree in education from Chicago State University in December, 1977.

She has worked for the Chicago Public School System since 1973 as a high school English teacher and co-chairman of an English department.

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CHAPTER I

INTRODUCTION

There can be little doubt that executives must make decisions. Their responsibility to run an enterprise cannot be carried out without making formal and informal decisions. The purpose of this study is to investigate the formal decision-making process of selected school and business administrators. Since high schools are generally more complex than elementary schools, the variety of decisions made by a high school administrator warrants study. Similarly, middle management executives in business must make a wide range of decisions in their job performance. If the decision-making process is to be more than a mere personal reaction to a situation, some objectivity must be a part of the process. A model which designates steps in decision making can provide that objectivity. This model can be used by middle management in schools as well as in business. Since middle management by definition is subordinate to top echelon management, the use of a model for decision making may indicate that careful consideration has been given to those decisions made on the middle management level. The application of a model for decision making can provide a rationale for the decisions made so that the decisions can be justified as not

being capricious or arbitrary, at least in terms of a structure. The validity of decisions made can always be viewed subjectively, but the approach used can be interpreted as a type of objectivity.

The essential elements in a decision-making process provide the structure which must be used by the decision maker whether he is in education or in some other field. By following the structure the decision maker can be assured that the process of decision making is sound and logical. For years, education and business have been analyzed in reference to differences in their final product. One area which is of importance to both fields is the decision-making ability of those empowered to make decisions. Thus a comparative study of the rationale for decision making in schools and in business is worthy of study.

In order to provide depth to an analysis of decision making those decisions which are dictated by law, policy, and/or rule and regulation are excluded from the data. The focus in the data is on non-routine decisions relating to personnel matters and which require the exercise of options. The decisions to be studied are similar to what Simon calls non-programmed decision making.[1]

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[1]Herbert A. Simon, The New Science of Management Decision, (New York: Harper and Row, 1960), p. 5-26.(New York: The Free Press, 1965), p.

A model for decision making, derived from the litera-
ture, can be the framework for comparing the decision-making
process in the two fields mentioned above. In his text,
Administration of Public Education, Stephen Knezevich synthe-
sizes the essential elements in the decision-making process
espoused by certain administrative theorists (Simon, Taylor,
Newman and Sumner, and others).[2] From this synthesis a
structure can be developed which is applicable to education
and to business.

Knezevich lists seven steps in the decision-making pro-
cess which he cites as a synthesis of those steps frequently
found in the professional literature. Sumner and Newman
specify four steps which are similar to the seven steps of
Knezevich. These four steps of Sumner and Newman were se-
lected as the steps for the decision-making model used in
this dissertation and the addition of a fifth step "evalua-
tion." This fifth step was added because it is found fre-
quently in the literature.

The model used for this dissertation follows:

1. Diagnosis
2. Discovering alternative solutions
3. Analyzing and comparing alternatives
4. Selecting the plan to follow
5. Evaluation

---

[2]Stephen J. Knezevich, Administration of Public
Education, (New York: Harper and Row, Publishers, 1975), p.
60-61.

These five points will serve as a structure to analyze the decision-making process of persons sampled. For the purpose of clarity these five steps will be referred to as a model.

Statement of the Problem

The impact of decision making has so many ramifications that whimsical and capricious bases for the decisions can be serious problems. There is sufficient evidence in the literature that there are common steps in decision making which can be organized and specified as a direction for the decision maker. If some clearly stated steps which are deemed essential by the experts to the decision-making process can be specified, they could be followed to some degree. If followed, the process of decision making should be improved.

Since the literature relating to decision making is not written exclusively for school principals or middle management executives in industry, the elements in the process can be applicable to both groups.

An analysis of the four purposes cited in "Purpose of the Study" can reveal, at least implicitly, guidelines and directions for those who are faced with making important professional decisions. Thus, a simple statement of the problem can be posed in the following question: How can adherence to a decision-making model improve the decision-making process?

Purpose of the Study

The purpose of this study is to analyze the decision-making process of middle management executives in terms of a model derived from the professional literature. The executives represented suburban high schools and service industries so that a comparison of the two groups according to the model was considered as a secondary purpose. Specifically, the purposes of the study are stated as:

1. To apply the factors in the decision-making process identified by school and business administrators to an accepted model derived from the literature.

2. To identify those steps in the model which are most difficult to implement by the sample population.

3. To compare the two groups of administrators on the basis of problems and issues encountered in applying the model.

4. To recommend procedures relevant to the decision-making model to improve its applicability.

The Procedure

A) The literature was surveyed to determine relevant find-
ings on the topic of decision making. The literature
explored represents education and industry. Many of the
early administrative theorists originally derived their
insights from government and industry. More recent
theorists have applied these early views to educational
settings. Thus, the literature provides interesting
cross references to both fields.

B) The sample for the study was determined. The sample
consisted of twelve high school principals and twelve
middle manager positions in a service industry. The
sample was drawn from suburban Cook County locations.
These two levels of management were chosen for this
study because in education and industry there is a hier-
archical superior who can overrule the decisions made, a
factor which can influence the decisions themselves.
Moreover, a principal in the school and the middle man-
ager in industry typically deal closely with the people
on a daily basis who are affected by their decisions.
The sample will represent a cross section of administra-
tors with a minimum of three years experience either as
a high school principal in one school or as a middle
management executive in one job in industry. Three
years was chosen as sufficient time for a variety of

decisions to have been made by the executive. Thus, their responses were based on experience as decision makers.

C) A telephone survey was made of suburban high school principals to determine whether they meet the criterion of three years experience and whether they are willing to participate in the study. A telephone survey was also made of large diversified industries such as Allstate, A. C. Nielsen, Underwriters Laboratories, and Illinois Bell. Companies similar to these examples were used depending upon their willingness to cooperate in the study. The companies chosen dealt in services rather than production of materials because there may be a less structured situation in the former than in the latter. Middle management is defined as a person in charge of a department or division within the industrial organization. A sample of twelve principals and twelve middle managers comprised the sample for an in-depth interview. The determination of twelve is sufficiently large to draw conclusions which can be representative of each group.

D) The structure of the model indicated the types of questions asked during the interview. (See Appendix for Interview Guide.)

E) The responses were analyzed relative to the structure of the decision-making model used as a frame of reference.

The analysis is in narrative form focusing on patterns, trends, differences, and unique approaches in decision making as they relate to and depart from the decision-making model. The analysis was directed toward each group separately (middle management/high school principals) as well as to a blending of both groups. Tables were not used because the responses did not lend themselves to tabular representation. The application of the findings to the model presented no difficulty in terms of structure. The steps in the model are sufficiently different to warrant clear classification. Where ambiguity exists, reference was made to this lack of clarity. As anticipated, little difficulty was encountered in identifying each step of the model with the responses relating to it.

Assumptions

The study was based on the following assumptions:

1) The decision-making model has relevance to high school principals and to middle management executives in service industry.

2) There will be differences in adherence to the decision-making model within groups and between groups.

3) An analysis of the model will lead to conclusions applicable to both groups.

Delimitation of the Study

The results of the interview responses were limited to a geographic area - North, Northwest and West Suburban Cook County, Illinois. Because of the nature of the interview process, the sample was limited to a manageable number of participants for the study. If a larger number of interviews had been conducted, the scope of the study would have been applicable to a broader base. As conducted, the results are limited only to the sample population. The implication of the findings can be extended beyond the sample, but a question of reliability would then arise.

Another way in which the study is delimited is in terms of the accuracy and honesty of the responses provided by the participants. Still further, the interpretation of middle management in service industries was limited to those who had responsibility for a department regardless of the number of workers within the department. A different interpretation of middle management executive in industry could lead to different conclusions from those developed in this study.

A final delimitation is that the decisions studied focused on personnel matters and required the exercise of options with consequences on the part of the decision maker. As stated in the introduction, the decisions studied were similar to what Simon called nonprogrammed decision making. If routine decisions had been studied, perhaps the findings would have been different.

Definition of Terms

For the purpose of this investigation, the following definitions of terms were applicable.

Decision-Making Model -- The five steps common to decision making, four of which were identified by Sumner and Newman, plus a fifth step called "evaluation".

Decision-Making Process -- The application of a systematized five-step approach to making decisions.

Middle Management -- A level of management where a person is in charge of a department or division within a service industry and whose decisions are subject to a hierarchial superior.

Nonprogrammed Decisions -- A concept developed by Simon which requires decisions to be made which are not prescribed by policy or by routine procedures.

Service Industry -- An industry which focuses on service rather than providing a product.

Instrument

The instrument used to collect data for this study was a series of interview questions. This instrument was developed from the structure provided by the five steps in the decision-making model. The questions reflected the implications arising from an analysis of the literature and the treatment by Knezevich on the topic of decision making.

Since these questions were not developed from an existing interview guide, they were submitted to a panel of experts for possible modification. The panel of three experts who were not part of the sample read and reacted to the Interview Guide and their suggestions for modification were incorporated into the final set of questions used during the interview.

The group of experts was asked to evaluate the instrument according to its relevance to the model by answering such questions as:

1) Are there specific items which should be submitted?

2) Are there specific items which should be altered?

3) Are there specific items which should be added?

4) Do you have any other suggestions that would improve the instrument?

As noted on the Interview Guide (see Appendix) the
questions were planned to allow tangents to be pursued.
Where this pursuit became a reality, appropriate notation and
explanation are included in the presentation and analysis of
data.

The questions were organized so that some of them would
relate to each of the five steps in the decision-making model.

The use of an interview approach can be justified by the
following quote:

> By means of the interview, it is possible to secure
> data that cannot be obtained through the less personal
> procedure of distributing a reply blank. People do
> not generally care to put confidential data in writ-
> ing; they may want to see who is getting the informa-
> tion; and receive guarantees as to how it will be
> used. They need the stimulation of personal contacts
> in order to be drawn out. Furthermore, the interview
> enables the researcher to follow up leads and take
> advantage of small clues; in complex materials where
> the development is likely to proceed in any direction,
> no prepared instrument can perform the task. Again,
> the interview permits the interviewer to gain an im-
> pression of the person who is giving the facts, to
> form some judgement of the truth of the facts, 'to
> read between the lines,' things that are not said.[3]

---

[3]Carter V. Good, A. S. Barr, and Douglas E. Scates, The
Methodology of Educational Research, (New York: Apple-Century-
Crofts, Inc., 1941) p. 378.

Interview Administration and Analysis

The interview instrument was administered to twelve high school principals of suburban North, Northwest, and West Cook County and to twelve middle managers from service industries in suburban Cook County.

The respondents to the interview were selected as the result of a telephone inquiry concerning their willingness to participate in the study. The principals selected for participation represented twelve schools and the managers represented ten businesses.

The interview was intended to elicit responses which related to the five steps in the decision-making model. The open ended nature of most of the questions provided the opportunity for the respondents to answer the questions in a variety of ways. The focus on the five steps of the model, however, was maintained by adhering to the interviewing format.

The responses provided the basis for the narrative analysis of this study. The analysis was structured to attempt to provide information on the following concerns:

1) Similarities and differences in utilizing the decision-making model in schools and in service industries.

2) Strengths and weaknesses in utilizing the decision-making model in schools and in service industries.

3) Problems and pitfalls encountered in utilizing the decision-making model in schools and in service industries.

4) Advantages and disadvantages in utilizing the decision-making model in schools and in service industries.

5) Patterns and trends in utilizing the decision-making model in schools and in service industries.

Structure of the Dissertation

Chapter I - Chapter I presents an overview of the purpose and major structure of the study. The decision-making model is explained in derivation and in concept. Major questions to be analyzed are presented and key definitions are made.

Chapter II - A review of related literature is presented in this chapter. In this review an attempt is made to develop a historical perspective of development in the study of decision making in education and in industry. Relevant studies, articles, and books are included in this review.

Chapter III - In this chapter the data are presented and
analyzed. The structure of the chapter will
provide clear delineation between the data
collected and the analytical interpretations
applied to them. At the end of each step in
the decision-making model a summary of the
data and of the analytical comments will be
presented.

Chapter IV - Conclusions, recommendations based upon con-
clusions, and implications for further study
will comprise the essence of Chapter IV.

CHAPTER II

REVIEW OF RELATED LITERATURE

There is an abundance of literature dealing with decision making. This literature includes books, dissertations, other studies, and articles. There is not much literature, however, that analyzes the application of an eclectic, synthesized version of key elements in decision making to decision makers. Thus, the review of related literature which follows contains views and studies which relate to the focus of this dissertation but which are related more indirectly than directly. The substantiation of this conclusion has been derived from an ERIC Search and a search of dissertation abstracts which have revealed a variety of findings on a variety of related topics, but none on the topic treated in this investigation.

In spite of the indirect nature of the relationship of these writings, there are implications which can be beneficial and germane to this present study. The literature to be reviewed is categorized by source rather than by topic. The three categories are books, dissertations, and articles and reports.

In an attempt to gather data on related literature, the decision was made to begin with the year 1973. The major reason for this decision is an emphasis on the current status of decision making. Since making decisions is probably as old as the history of man, the background for why decisions must be made is too evident to warrant justification. Thus, it can be assumed that decision making is an important aspect of administration. Moreover, it is a given that the generally cited aspects of decision making can be organized into a model with applicability to decision makers. The importance of current emphasis is due to the many social, political, and economic changes that characterize schools and industry since 1973. For example, since 1973, there has been a significant decrease in school population; the job market has tightened, recession and inflation have affected industrial priorities, and the political scene has changed dramatically. Although these factors will not be explored in this study, their importance cannot be denied. The consequences of decisions made under the influence of these factors reflect current issues rather than dated problems. Thus, only current related literature is reviewed.

An exception to the above date has been made in the review of books which deal whole or in part with the topic of this study. The reason for this exception is that the theorists who are relevant to this study have predated 1973.

Their views can serve to present a modicum of historical perspective, but this perspective is secondary to the major focus of this dissertation.

As stated, the three categories under which the review of literature is classified in this study are books, dissertations, and articles and reports.

Books

The many facets of decision making have been treated in numerous books. The gamut of subtopics related to decision making includes the rationale for the process, the ingredients in the process, and the consequences to be considered. For example, John W. Sutherland in his text, Administrative Decision-Making, analyzes decision making under the topics of: 1) Sources of Suboptimality, 2) The Structure of Decision Responsibilities, 3) Decision Performance and Propriety, 4) Aspects of Decision Discipline and 5) Managing the Decision Function.[4]

There can be little doubt that the above topics are germane to decision making, but the examination of these topics is beyond the scope of this study. In order to keep within the bounds of this study. the review of literature was limited as much as possible to the process of decision making.

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[4]John W. Sutherland, Administrative Decision-Making: Extending the Bounds of Rationality (New York: Van Nostrand Reinhold Company, 1977), p. xiii-xiv.

Additional relevant aspects of decision making are noted

where appropriate, but there is no intentional emphasis on

these aspects.

Craig C. Lundberg's treatment of "the analysis of deci-

sioning" includes the following:

> The sequences presented in the literature
> contain four to nine steps, most of which
> are deemed essential and which must be ac-
> complished in a definite order. It is as-
> sumed that everyone who follows the sequence
> of steps will arrive at a very similar con-
> clusion. A typical set of steps would be:
> 1) Recognize, define and limit the problem
> 2) Analyze and evaluate the problem. 3)
> Establish criteria or standards by which
> solution will be evaluated or judged as
> acceptable and adequate to the need. 4)
> Collect data. 5) Formulate and select the
> preferred solution or solutions. Test them
> in advance. 6) Put into effect the preferred
> solution.[5]

In The Decision-Maker's Handbook, Alexander H. Cornell is

more formal in his treatment of decision making.[6] He refers

to the necessity of a "Systems Analysis." He describes an

approach based on the research of Quade and Boucher which is

presented as critical steps of Systems Analysis.

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[5]William J. Gore and J. W. Dyson, editors, The Making of
Decisions: A Reader in Administrators Behavior (New York: The
Free Press of Glenco, 1964), p. 23.

[6]Alexander H. Cornell, The Decision-Maker's Handbook
(Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1980),
p. 18.

Systems Analysis is a cycle of:

1. Defining objectives (problems and opportunities).

2. Designing alternative systems to achieve those objectives.

3. Evaluating the alternatives in terms of effectiveness and costs.

4. Questioning the objectives and all assumptions.

5. Opening up new alternatives,

6. Establishing new objectives,

7. Repeating the cycle until a satisfactory solution is reached; hopefully, the optimum solution, whether it be in keeping with the criteria of effectiveness, cost, or both.[7]

Cornell discusses open and closed systems as factors which can be affected by Systems Analysis. He presents models and flow charts to illustrate these relationships.[8]

John B. Benton discusses terms like "systems analysis," "effectiveness evaluation" and "problem-solving methods" as descriptors of a process which includes the major steps which are typically cited as the steps in decision making.

The paradigm usually begins with the identification of an issue or a problem. The next step involves the establishment of an objective or two, as an effective response to the issue. Subsequently, alternative courses of action are identified and subjected to some kind of evaluation. The methods contribute something to the evaluation. The methods

[7]Ibid., p. 18.

[8]Ibid., p. 18-21.

use different evaluation criteria - some being non-behavioral and amenable to metric evaluation, others being highly behavioral and unassociated with metric evaluation. Ultimately, the data and relationships developed throughout the analysis are considered within that set of information against which someone, or some group, will make the initial choice.[9]

In attempting to explain systems analysis further, Benton states, "Too frequently, we have mistakenly employed a technical, economic or mathematical micro analysis to investigate problems involving many other variables of equal importance ... The sub-optimization tendency may account for the fact that systems analysis so often fails in its mission."[10]

K. Forbis Jordan views the decision-making process as three steps: identification of the problem, review of alternative solutions, and choice of the appropriate solution.[11] He considers this process as one of four interrelated functions - decision making, implementation, communication and evaluation.[12]

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[9]John B. Benton, Managing the Organizational Decision Process (Lexington, Massachusetts: Heath and Company, 1973), p. 17.

[10]Ibid., p. 21.

[11]K. Forbis Jordan, School Business Administration (New York: The Ronald Press Company, 1969), p. 27.

[12]Ibid., p. 26.

This simple, yet encompassing treatment, is similar in some respects to Herbert A. Simon's definition of decision making. "Decision making comprises three principal phases: finding occasions for making a decision; finding possible courses of action; and choosing among courses of action."[13]

In their text, Newman and Sumner describe decision making in four phases: 1) diagnosis, 2) discovering alternative solutions, 3) analyzing and comparing alternatives, and 4) selecting a plan to follow.[14]

In his text, Organizational Behavior in Schools, Robert G. Owens discusses administration and decision making.

> ...decision making is the key function or activity of administrators. Litchfield, for example, sees administration as a cycle of activities which begins and ends with decision making: 1) decision making, 2) programming, 3) communicating, 4) controlling, and 5) reappraising. This cycle which, for Litchfield comprises the 'administrative process', involves the administrator not only in the making of decisions, but in the establishing of arrangements to implement these decisions (programming), to keep the organization informed (communicating), to adhere to the plans decided upon (controlling), and to evaluate results (reappraising). Presumably, a new cycle of administrative process will flow from a reappraisal.[15]

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[13]Simon, The New Science of Management & Decision, p. 1.

[14]W. H. Newman and C. E. Sumner, Jr., The Process of Management (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961), p. 261-262.

[15]Robert G. Owens, Organizational Behavior in Schools (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), p. 90.

In a book written for business managers, John D. Arnold lists seven building blocks for decision making.

1. Smoke out the issue.

2. State your purpose.

3. Set your criteria.

4. Establish your priorities.

5. Search for solutions.

6. Test the alternatives.

7. Troubleshoot your decision.[16]

Other authors tend to treat decision making in more complicated terms. William J. Gore, in his presentation of a general model of the decision-making process, includes Goals, Social Structure, Tension Network, Perception Phases, and Disregard Response. He organizes the model into Phase I - Perception, Phase II - Evaluative Set, Phase III - Estimation of Consequences, and Phase IV - Maneuver for Position. Accompanying his treatment of the topic are eight charts.[17]

Sutherland's treatment of decision making is thorough and theoretical. His text abounds with diagrams, figures, and mathematical formulas which are intended to clarify the

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[16]John D. Arnold, Make Up Your Mind! The Seven Building Blocks to Better Decisions (New York: Amacom, 1978), p. 24-26.

[17]William J. Gore, Administrative Decision-Making: A Heuristic Model (New York: John Wiley and Sons, Inc., 1964), p. 36-101.

specifics of decision making as noted in his Table of Contents.[18]

Throughout the references cited in this section there are some common threads. These threads demonstrate the rationale for selecting the five-step model explained in Chapter I of this study.

Throughout these references, it can also be noted that there are implications for factors generated by the decision-making process used. These implications relate to communication, authority, leadership style, personality, risk perceptions, and related concerns. As stated, the review of the literature presented in this section is intended to center upon the decision-making process itself and not on these other factors, despite their relevance. In some measure these factors are considered in the interview data gathered and are treated in the presentation and analysis chapter of this study.

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[18]Sutherland, Administrative Decision Making, p. xiii-xiv.

Dissertations

The popularity of the topic of decision making is evident in that there are many dissertations dealing with many aspects of this topic. For purposes of this study those dissertations which treated certain conditions and/or variables in decision making were singled for inclusion. For those dissertations not included (See Bibliography for listings) the emphasis in each of them was on some other phase of decision making rather than on the process itself. Those included here are more relevant to the purposes of this study.

Glenda W. Harlow investigated to what extent, if any, secondary principals exhibit rational behavior in the decision-making process.[19] One of the assumptions in this study was that principals are aware of how they arrive at decisions and can intellectually describe that process. Harlow found through her interview method that secondary principals do exhibit rational behavior while making decisions; however, no consistent pattern was found that could be identified as a rational decision-making process.

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[19]Glenda Whitaker Harlow, "A Study of the Usefulness of the Focused Interview as a Method to Determine if Secondary Principals Exhibit Rational Behavior in the Decision-Making Process" (Ph.D. dissertation, The University of Alabama, 1979), Dissertation Abstracts International 40 (April 1980), p. 5267-A.

The findings in this study have definite implications for decision making:

1) The inference has been made that secondary principals may not exhibit consistently a pattern of rational behavior in the decision-making process. Principals should become more consistently aware of the steps relevant to rational decision making and follow those steps in the decision-making process.

2) The lack of evidence to support the assumption that principals base some of their decisions on personal biases and external pressures.

3) Researchers should continue to strive to develop methodology for studying rational behavior in the decision-making process.

4) Researchers should place increased emphasis on the applicability of theories in the behavioral sciences to problems facing the practicing administrator.[20]

Hence, the need to study the decision-making process is important. Decisions made in a non-systematic way can be haphazard if no rational, well thought out approach is made to decision making. The lack of support of evidence in Harlow's study relative to the implementation of these elements led Harlow to recommend that further study be done in this area. In itself, this recommendation can be considered as a justification to warrant the research undertaken in this study.

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[20]Ibid., p. 5267-A.

Guzzo's study examined two factors that affect the quality of decisions made by managerial groups: 1) the nature of the decision problem and 2) aspects of the social dynamics of managerial groups.[21]

The sample population in this study was 72 managers who were asked questions dealing with group decision making. The quality of their decision making was analyzed. Quality was defined and measured with reference to the process of decision making into the following five categories: 1) openness to new information, 2) legitimacy of conflict, 3) rationality of choice, 4) clarity and detail, and 5) checks on the process.[22]

The study found that these five dimensions of quality were related systematically to the nature of the decision problem, aspects of the social dynamics of managerial groups, and the interaction of these two factors. One type of decision making classified as "emotive" was found to be "negatively associated with decision making quality."[23]

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[21]Richard Anthony Guzzo, "The Decision Making Quality of Managerial Groups" (Ph.D. dissertation, Yale University, 1979), Dissertation Abstracts International 40, p. 3403-A.

[22]Ibid., p. 3403-A.

[23]Ibid., p. 3403-A.

In the study under investigation, emotions (emotive decision problems) are not studied directly. It is intended that the interview may uncover facets of decision making which have emotional overtones and these will be noted when they appear. But this factor will not be studied in depth. Relevant implications of emotion will be treated, where appropriate, in the analysis.

Moreover, although the quality of decision making was studied in reference to the process of decision making in Guzzo's study, quality itself will not be treated in this study as a high priority concept. The value aspect of assessing quality is beyond the scope of this study, but it cannot be ignored. Thus, some of the questions in the Interview Guide have been directly related to quality.

Charles J. Shirley investigated the relationship between high school principals' attitude toward participatory decision making and 1) organizational leadership and technical management dimensions of role conception, 2) level of career aspiration, 3) degree of expressed career satisfaction, and 4) biographic and demographic data.[24]

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[24]Charles John Shirley, Jr., "The Relationship of Secondary School Principals' Attitude Toward Participatory Decision-Making and Role Conceptions as a Function of Their Bureaucratic on Post-Bureaucratic Orientation" (Ph.D. dissertation, University of Pittsburgh, 1972), Dissertation Abstracts International 33,
p. 4030-A.

Shirley found that there was a significant relationship between the principals' attitude and the degree of emphasis placed on technical management. However, there was no relationship between principals' attitude and organizational leadership. No conclusive evidence was found regarding the principals' attitude toward participation in decision making relative to career aspiration or degree of career satisfaction. Shirley did find that the principal's attitude toward participatory decision making and his semester hours of graduate credit were significant at the .05 level.[25]

Although the focus of investigation by Shirley is interesting, there will be no attempt to investigate these considerations further in the study under investigation.

Bruce K. Blaylock attempted to find out which of three factors had the most impact on decision making: 1) environmental context of the decision, 2) the decision makers own information processing preferences, or 3) objective risk measures.[26] Blaylock studied MBA students at Georgia State University, merchants, and middle managers in the communications industry. All participants in his study had at least three years of experience in business.

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[25]Ibid., p. 4030-A.

[26]Bruce Kevin Blaylock, "Interactive Effects of Classificatory and Environmental Variables in Decision-Making Under Conditions of Risk" (Ph.D. dissertation, Georgia State University, 1980), Dissertation Abstracts International 41 (December 1980), p. 2678-A.

Using appropriate statistics for his experimental design, Blaylock concluded that there is a "melding together of all factors, environment, objective, and psychological which directs behavior under conditions of uncertainty."[27] Although Blaylock attempted to isolate selected variables affecting risk, his conclusion is important in that it suggests that risk itself is not a single entity. Therefore, there may be other variables which are blended when one decides to risk a given course of action. The Interview Guide in this study allowed the participants to comment on some of these variables. As middle managers they must know that their decisions can be overruled and therefore the element of risk is greater on their level than on the level of their superiors.

McCarthy studied the relationship between personal characteristics of high school principals, selected decision situations, and the principal's decision making behavior.[28]

McCarthy found that there was no relationship between the principal's personal attributes and his decision-making

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[27]Ibid., p. 2678-A.

[28]Walter Loring McCarthy, "A Study of the Relationship Between Leadership Behavior, Locus of Control, and Decision-Making Style of Connecticut Public High School Principals" (Ph.D. dissertation, University of Connecticut, 1977), Dissertation Abstracts International 39, p. 3797-A.

style. In given decision situations, a relationship existed between Locus of Control and decision-making style. It was found that principals did modify their decision-making behavior when faced with different decision situations.

The emphasis on leadership style in McCarthy's study is not a significant aspect of the study under investigation. References to style may emerge from the results of the interviews, but style is not a primary factor in this study. The elements of decision making cited for the framework in this investigation are assumed to be applicable regardless of style.

In Charles W. Woodward's study the emphasis was on an examination of the role of the secondary principal in his problem-solving behavior of job related decision making.[29] In his study, Woodward studied how principals make decisions, including their rationale for the decisions made. In his narrative analysis, Woodward was able to draw the following conclusions:

> 1) High school principals are more concerned with human, personal feelings, of those involved in problems and acting as moderators in personnel conflicts than they are of following a prescribed problem solving, decision-making technique.

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[29]Charles William Woodward, "Decision-Making and Problem-Solving in the Secondary School Principalship: Perceptions of Secondary School Principals and Significant Others" (Ph.D. dissertation, University of Utah, 1979), Dissertation Abstracts International 38, p. 7076-A.

2) Effective principals do follow the problem

solving and decision-making procedures

suggested in the literature; however, they

have added an additional dimension -- the

consideration of human feelings in final

problem resolution and decision making.[30]

Reference to these conclusions can serve as a guide in interpreting some of the results of the interviews conducted for this investigation. If indeed the "effective principals" follow the decision-making procedures derived from the literature, their emphasis on human feelings may appear in the results of this investigation. Moreover, the influence on the adherence to specific steps may serve as a basis of comparison between and among groups which serve as the sample for this study. Reference to this possibility is included in the Interview Guide utilized in this study (see Appendix).

Another aspect of decision making which has some bearing on the study under investigation is Clark R. Stone's dissertation which analyzes decentralization and decision making.[31] He studied elementary, secondary, and unified

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[30]Ibid., p. 7076-A.

[31]Clarke Raymond Stone, "Decentralization and Decision Making: An Analysis of the Perceptions of High School Principals and Central Office Administrators" (Ed.D. dissertation, University of Southern California, 1973), Dissertation Abstracts International 34, p. 3797-A.

school districts in California. These districts were located in Los Angeles and Orange County.

Among his conclusions was the following: "Administrative decentralization is a more effective way of solving educational problems than having decisions made at the central office level."[32]

This conclusion, restated in Stone's recommendations, has potentially significant implications for the middle managers role in decision making. Although the role of the administrator above the level of middle manager is not a part of this study, the implications deriving from Stone's finding were utilized in the analysis of the results in this dissertation.

Marshall Jenkins' dissertation entitled, "A Study of Connecticut Secondary Principals' Perception of Decision Making Prerogatives in the Administration of Schools" attempted to determine whether decision making is a cooperative or individual process in Connecticut high schools.[33]

Through the use of a questionnaire, Jenkins reached several conclusions:

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[32]Ibid., p. 3798-A.

[33]Marshall Jenkins, "A Study of Connecticut Secondary Principals Perception of Decision Making Prerogatives in the Administration of Schools" (Ph.D. disertation, University of Connecticut, 1972, Dissertation Abstracts International 33, p. 5440-A.

1) The secondary principal had major respon-
   sibility for decisions in extra-duty
   assignments, scheduling of faculty meet-
   ing, selection of substitutes, student
   suspension, student transfer and the
   behavior of students.

2) The principal shared major decision making
   responsibility for professional personnel.

3) Decisions concerning the overall operation
   of the school program was shared by prin-
   cipals, teachers and often the superin-
   tendent.

4) In most areas of educational activities,
   decision making was seen as a cooperative
   endeavor.

5) There seems to be a significant relationship
   between the principals' perception of deci-
   sion-making prerogatives and the variables
   relating to age, administrative and teaching
   experience, size of the school, and kind of
   community in which the school is located.

6) Although there are areas such as scheduling of
   faculty meetings, selection of substitute
   teachers, student behavior and dress, and
   student suspension, in which teachers do not
   seem to be involved, high school principals
   generally view the decision-making process as
   a cooperative one.

7) Teachers and other professionals were included
   in decisions concerning student affairs (except
   discipline), teacher affairs and instructional
   activities. Other areas seem to be the respon-
   sibility of the superintendent and principals.[34]

Overall, Jenkins substantiated the fact that secondary

principals perceived the decision-making process as a cooper-

ative one. The application of this emphasis on

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[34]Ibid., p. 5440-A.

cooperation, if applied to the five-step process for decision making utilized in this study, can be a framework for analysis. The probable influence of a cooperative, or participatory concept of decision making led to interesting speculations in this dissertation.

A study by Hayes analyzed management development programs in private industry and in public elementary schools.[35] The study attempted to isolate areas of similarities and differences in the components of management development programs in public education and in private industry.

A major finding of this study supported "the concept that there are similar components that are included in management development programs in both industry and education."[36] An implication of this finding which is relevant to the study under investigation is that there may be similarities in the decision-making process in education and industry since there is a similarity of purposes in management development programs.

As in the case of the other dissertations cited, this implication is a possible framework for an analysis of the results obtained in this study.

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[35]Charles Henry Hayes, "Comparison of Management Development Programs in Industry and Education in Cook County, Illinois" (Ed.D. dissertation, Loyola University of Chicago, 1979).

[36]Ibid., p. 225.

Articles and Reports

The articles selected for review cover a broader range than the text selections. The review of books points out clearly the common elements in the decision-making process. As suggested in that review there are factors which can affect the implementation of this process. The articles chosen elaborate both on the process and some of these related factors.

Richard C. Lanaghan provides nine steps to take in making decisions. These steps are very much like those specified repeatedly in the books reviewed. These steps are as follows:

1) Identify the problem.

2) Identify criteria for judging alternatives.

3) Clarify the criteria.

4) Rank the criteria.

5) Identify alternative solutions.

6. Clarify the alternatives.

7. Compare alternatives with criteria.

8. Rank the alternatives.

9. Make the final decision.[37]

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[37]Richard C. Lanaghan, "Nine Steps to a Major Decision," Illinois School Board Journal 49 (May-June 1981) p. 18-21.

Like Lanaghan, Ronald L. Partin lists steps to enhance decision making. He specifies twelve suggestions which are similar to Lanaghan and to others, but he adds such factors as "make a commitment," "assume responsibility for the decision," "practice decision making," and "know thyself."[38]

Using a business management model, Joe P. Bail and Harold R. Cushman provide a program planning guide for teachers of adult education.[39] The focus is on making management decisions and solving problems including the same kinds of concerns found in models reported elsewhere in this review of the literature. Similarly, a business management model was used by Tom Hephner and applied to advanced distributive education students.[40]

Applying the often cited steps in decision making, Samuel Kostman analyzed shared problem solving.[41] He

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[38]Ronald L. Partin, "A Dozen Ways to Enhance Your Decision Making," NASSP 63 (March 1979).

[39]Joe P. Bail and Harold R. Cushman. Teaching Adult Education Courses: The Business Management Model (Ithaca, New York: ERIC Document Reproduction Service, ED 141 589, 1976).

[40]Tom Hephner. Industrial Sales Decision-Making (Columbus, Ohio: ERIC Document Reproduction Service, ED 112 240, 1976).

[41]Samuel Kostman, "Shared Problem Solving, Decision Making," NASSP Bulletin 62 (January 1978).

advocated the advantages of shared decision making in terms of upgrading the role definition of administrators and the ongoing improvement in their morale.

Another usage of the elements in a problem solving model was described by Richard and Virginia Peter.[42] The authors presented the thesis that with values clarification skills, problem solvers can become excellent decision makers. In their article the following problem solving model is presented:

<div align="center">

A PROBLEM SOLVING MODEL

State the Problem

Collect Data

Develop Hypothesis

Evaluate Results

Test Hypothesis [43]

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There are many references in literature to participatory decision making. One article, in particular, analyzes this aspect of decision making in great depth.[44] Unlike the other

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[42]Richard Peter and Virginia Peter, "Values Clarification Skills: Helping Problem Solvers to Become Decision Makers," Man/Society/Technology 38 (November 1978).

[43]Ibid., p. 29.

[44]Frank A. Heller, Pieter J. D. Drenth, Paul Koopman, and Veliko Rus, "A Longitudinal Study in Participative Decision-Making," Human Relations 30 (1977).

articles in this review, the authors utilize a two-year lon-gitudinal study of decision makers in three countries. They studied major variables in the decision-making process and arranged them into four groups:

1. Personal variables, such as age, education, expectations, etc.

2. Situational variables close to the person such as job characteristics, job constraints.

3. Microstructural variables, such as span of control, size of department, group climate.

4. Macrostructural variables like the size of the total organization, attitude to top management and its rules, uncertainty of the environment.[45]

In their analysis of the impact of these kinds of vari-ables on the decision-making process, one of their major inclusions is "More power sharing in the middle phases than at the beginning or end."[46] They also conclude that no matter how participative the structures for decision making, "...the decision process also goes on outside the commit-tees."[47] The implication of these conclusions were applied in analyzing the data in this present study.

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[45]Ibid., p. 571.

[46]Ibid., P.581.

[47]Ibid., p. 582.

Another reference to participation in decision making is found in a paper written by Eugene Thompson and Vldis Smidchens and presented at the Annual Meeting of the American Educational Research Association in 1977.[48] Approximately two thousand lay persons were involved in helping to establish priorities for a school district. The views of these participants were incorporated into the final decision made.

In an article dealing with the complexity of the problems faced by school principals today, Kostman suggests a renewal process for the principal, emphasizing shared problem solving and decision-making structures.[49] The renewal concept is a version of participative, or using Kostman's term, collaborative decision making.

A different point of view is found in the article by Howard Karlitz.[50] He described two major threats to school decision-making processes as a result of the increasing

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[48]Eugene W. Thompson and Vldis Smidchens, "Process and Problems of Prioritizing Educational Goals in a Complex Society." (New York, N. Y.: American Educational Research Association, April, 1977).

[49]Samuel Kostman. A Case History: Cabinet-Level Renewal at George Washington High School (New York, N.Y.: ERIC Document Reproduction Service, ED 151 477, 1976).

[50]Howard Karlitz, "Unionization of Educational Administrators in the USA," International Review of Education 25 (1979).

unionization among school principals. This trend separates

middle managers from higher echelons, thus minimizing the

opportunity for team planning. Also, this trend requires

increased specialization of roles which results in con-

straints as well as formalized definitions of these roles.

The impact of these threats can decrease the authority for

decision making by principals in that much of their task may

be reduced to mere implementation of decisions made by top

management or by subordinates.

One explanation for problems in decision making is of-

fered by Arthur Vidich and Charles W. McReynolds.[51] They

stated that as individuals the principals considered them-

selves to be embattled administrators. As a group the prin-

cipals seem to be struggling to overcome encroachments upon

their traditional role. Moreover, they regarded themselves

as defenders of the establishment and as targets for criti-

cism. The authors recommend the separation of the role of

the principal into two functions: 1) administration of the

school building as a business and 2) educational leadership

by serving as a head teacher. This recommended separation,

intended to clarify the functions of the principals, is

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[51]Arthur J. Vidich and Charles W. McReynolds. _High School Principals Study Seminar_ (New York, N. Y.: ERIC Document Reproduction Service, ED 037 831, 1969).

viewed by Vidich and McReynolds as a means to provide the principals with more security in the decisions that they make.

The emphasis in a report by Arthur N. Watkins is on the decision-making process in reference to individualized instruction in senior high schools.[52] The relevant aspect of his report is that the principal is a major factor in the determination as well as the implementation of the decision-making process and policy. This conclusion resulted from an analysis of the structures for decision making, the involvement of personnel in the decision-making process, and measures of satisfaction of school personnel with these structures and involvement.

Charles H. Ford studied decision makers in top management echelons.[53] His findings have a bearing on the decision-making process of middle managers who, if aware of the role of top management in decision making, can be guided accordingly. The author analyzed eight top level business executives in reference to their decision making. He

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[52]Arthur Noel Watkins. Actual and Ideal Decision-Making Processes utilized in Senior High Schools that Individualize Instruction (Madison, Wisc.: ERIC Document Reproduction Service, ED 187 011, 1978).

[53]Charles H. Ford, "The 'Elite' Decision-Makers: What Makes Them Tick?" Human Resource Management 16 (Winter 1977).

utilized three categories: 1) their approach to problems,
2) their approach to problem-decisions, and 3) some perti-
nent personal traits.[54]

Ford found that his sample relied more on self-confi-
dence, risk taking, feelings, and broad impact of conse-
quences than on the collection of data. In other words, the
decision makers trusted their own judgment and acted upon it
quickly with a willingness to face consequences. Ford also
found that "many times the human-effect factor tempered final
decisions."[55] The impact of these conclusions for middle
management is very clear.

This chapter pointed out the similarities in the various
decision-making models as well as highlighting some factors
which can influence what the theorists called "rational deci-
sion making." The emphasis in this dissertation is on a
rational approach to decision making through the application
of a model developed by synthesizing the views of experts in
the field. It is important to note, however, that in spite
of the implementation of a clearly defined approach to deci-
sion making, the impact of other relevant factors such as
subjectivity, personality, and values is inevitable. M. P.
Heller's comment summarized this point.

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[54]Ibid., p. 14.

[55] Ibid., p. 20.

"Capriciousness and flagrant favoritism in
decision making are abuses. Insistence
on complete objectivity in decision making
is semantically, psychologically, and
philosophically unattainable."[56]

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[56]M. P. Heller, So Now You're A Principal (NASSP:
Reston, Virginia, 1975), p. 25.

CHAPTER III

PRESENTATION AND ANALYSIS OF DATA

The purpose of this study is to analyze the decision-making process of middle management executives relative to a five-step model derived from the professional literature. The five-steps around which the interview was structured follow:

1. Diagnosis

2. Discovering Alternative Solutions

3. Analyzing and Comparing Alternatives

4. Selecting a Plan to Follow

5. Evaluation

The data for this dissertation consisted of responses to an Interview Guide administered to twelve middle management executives in service industries and to twelve high school principals. A copy of the instrument is included in the Appendix. An explanation of the selection of the sample is contained in Chapter I.

Each interview was conducted on a one-to-one basis and each interview lasted a minimum of forty-five minutes. The time devoted to each interview ranged from forty-five minutes to two and a half hours with an average time of eighty-five

minutes per interview. The longer interviews were due to the style in which the interview questions were answered rather than to any change in the questions asked.

The organization of the material presented in this chapter is structured to include each step contained in the model for decision making explained in Chapter I, plus the questions from the Interview Guide which are relevant to each step. For example, Step One is cited and each of the three questions from the Interview Guide which are directly related to Step One are presented and analyzed. In addition to the organization of the steps and the questions, the responses are categorized into three groups: 1) responses from middle management executives, 2) responses from high school principals, and 3) a combination of responses from both groups. When the references to the respondents totaled more than twelve, the explanation is that in some instances the interviewees gave more than one response to a question.

For purposes of clarification, the steps in the model with appropriate notations are presented:

1) Diagnosis - Location and clarification of problem.

2) Discovering alternative solutions - Identifying possible approaches and strategies.

3) Analyzing and comparing alternatives - Appraising a number of possible strategies and consequences.

4) Selecting a plan to follow - Organizing the chosen alternative into detailed steps for implementation.

5) Evaluation - Assessment of the decision made.

The presentation of the data is interspersed with analytical statements where appropriate. The analysis is intended to be sufficiently clear so that there will be no difficulty in determining what is presentation and what is analysis. As an attempt to highlight the difference clearly, in addition to the analytical comments blended into the narrative, at the end of each step a summary of the analysis is presented.

Responses from Middle Management Executives*

Step One - Diagnosis

Question 1 - How do you become aware that a problem exists?

An obvious pattern which emerged from the responses to the first question is that the managers relied heavily on personal observation in order to become aware of a problem. A total of eleven out of twelve managers cited observation as very important. In one instance, the manager reported that the facility was built with the concept of open space in mind so that there would be no physical obstruction to the observation of the workers.

The focus of the observations seems to be on the day-to-day routine job performance rather than on attitudes. In three instances, however, the importance of the attitudes of workers was identified as a means of becoming aware of a problem. The positions held by these three managers and the

responses made by them throughout the interview session did not suggest that there is any common thread which they look for in considering the attitudes of workers. However, it should be noted that these three managers did recognize the importance of attitudes. This subject is so popular in educational and managerial circles, yet nine managers did not refer to attitudes as a source of narrowing down a problem.

Another response which was cited frequently (eleven out of twelve managers) was the awareness brought about by subordinates. Observation includes viewing the work of subordinates, but the reference to subordinates as used by the eleven managers is more concrete than mere observation. The data sources from subordinates include reports, discussions, and formal and informal meetings.

The majority of the respondents (seven out of twelve managers) identified superiors as a source of awareness about problems. This viewpoint was expressed by one manager who stated, "Line organization takes care of problems through appropriate channels." In spite of this strong statement, one reason for the fact that more managers become aware of problems through subordinates and observation than through their superiors may be that the superiors are too far removed by position and location to be the paramount source of information. Another possible reason for the less than paramount role of the superior as a source for awareness of problems is

the high level of technical expertise held by two middle
managers, neither of whom cited their superiors as a source
of problem awareness. Another speculation on this point
relates to the possibility of pride in knowing one's own
department. Although four managers reflected this viewpoint,
one manager summed it up by stating, "I had better know the
problems in my department without waiting for someone else to
tell me about them."

In spite of the recent emphasis on computer usage in
business, only five of the twelve managers cited computer
printouts as indicators of problems. One of these five made
a strong statement that computer printouts are the most im-
portant source of problem awareness, but the majority of
managers sampled did not specify this view.

In general the awareness of a problem came from the
sources within the department, excluding superiors. In three
instances, however, specific mention was made of persons
outside the department. There was no consistency in the
references made in that one manager referred to employees
outside of his department, one referred to peers in other
departments, and the third manager referred to clients.

To show more about the range of responses of the man-
agers, in addition to the above data, one manager stated that
he relies upon "gut feelings" as a source of problem aware-
ness and another stated that "a lack of results" is a problem

indicator. Ironically, the manager who referred to gut feelings spoke at length about efficiency reports resulting from computer printouts. The comment dealing with lack of results is so general, but it suggests goal achievement as perhaps the overriding concern of middle managers.

Question 2 - What are the kinds of decisions with which you are concerned?

The responses to the above question in some measure validate the selection of the sample population. As stated in Chapter I, (page 2) the decisions to be studied are the non-programmed type. In answering Question 2, every manager interviewed specified these types of decisions as his area of concern. Every manager cited personnel decisions as a major responsibility. The personnel factors ran the gamut from selection, employment, assignment, evaluation, remuneration, promotion, and dismissal. When questioned about the authority to make decisions on these concerns, eleven of the twelve managers interviewed stated that they had the final authority for all personnel decisions in their departments. The one who did not have the final authority, did have the responsibility for making recommendations which he stated that his superior supported in every instance.

Many of the responses to Question 2 dealt with areas of technical expertise. Due to the diversity in types of managers interviewed, the answers dealing with expertise were

varied. Examples included pricing, legal questions, advertising, building construction, and building maintenance.

All of the managers interviewed had budgetary decision-making responsibilities. The budgetary decisions for which they are responsible range from project evaluation to decisions on expanding services of the department. The crucial concern in every instance was cost effectiveness. One manager summarized this type of decision-making responsibility by referring to his decision making on "allocation of resources to accomplish goals."

In spite of the unanimous reference to personnel decisions as a major area of concern, analysis of the responses indicated that the focus in this area is on specific factors. Genuine concern for the employee as a person was voiced but the emphasis was upon his production and efficiency as measured by cost effectiveness.

Question 3 - With whom do you discuss perceived problems?

Of the twelve managers interviewed, eleven stated that they discuss perceived problems with subordinates. This total reflects a consistent pattern among the managers who stated a major source of problem awareness is subordinates. The manager who did not cite subordinates as a group to discuss perceived problems stated that , "I discuss problems with no one. The computer readout tells me my responsibility. I must produce X amount of dollars." This same manager

did specify that he becomes aware of problems through subordinates. He seems to be willing to listen to subordinates but by his own admission he does not discuss problems with them. This example of an apparent one-way communication may minimize the opportunity for this manager to learn and to share ideas about problems.

Among the twelve managers, nine stated that they discuss perceived problems with their superiors. In relationship to Question 1 (seven of twelve managers become aware of problems through superiors) there are some interesting comparisons. One manager who becomes aware of problems through superiors does not discuss the problem with them. Three managers who do not become aware of problems from their superiors do discuss the problems with them. No apparent reasons for these discrepancies emerged during the interview. Nevertheless, these discrepancies do suggest that there may be confusion concerning communications within the hierarchy as well as confusion concerning the importance of line and staff. Because the majority of responses in relationship to Questions 1 and 3 are consistent, the discrepancies noted may be minor.

Other responses to Question 3 included discussions with peers, friends, and with the individual who has the specific problem. During the interviews, the discussions about these types of contacts included many comments from the managers dealing with human relations. There seemed to be a genuine

concern for the worker as a person. Moreover, there was an expressed desire to solve the problem rather than dismiss the person from the department. One manager stated, "I try to take the burden of blame off the employee by focusing on the problem and not on the fault."

One manager stated that the nature of the problem determines whether or with whom he discusses perceived problems. This manager said, "Sometimes there is no solution to a problem so why discuss it."

Five of the twelve managers indicated that the nature of the problem would determine whether it would be referred to another department for solution. Among the departments named were their legal department and their personnel department. The latter was named four times.

Step One - Summary Comments

The essence of Step One in the decision-making process is the identification of a problem and the gathering of data relating to it. All of the managers interviewed recognized the need to be aware of what subordinates and superiors identify as problems. The majority of the middle managers, however, rely more on the subordinate as a source of problem awareness. A possible explanation for this reliance is the contacts with the subordinates which is more frequent, according to the interview, than contacts with superiors. Observation is a major source of problem awareness according

to the managers interviewed. This means of awareness places
responsibility on the managers themselves. They must trust
their observations or else they are wasting time. The man-
agers seem to trust their judgments. Throughout the inter-
views they stated that few problems had to be solved by their
superiors because of the confidence which their superiors
placed in them.

Although there is a range of concerns about which the
managers make decisions, much of the impact of their deci-
sions is in the area of personnel. The significant authority
held by these middle managers over personnel can be consid-
ered as a narrowing of the range of their decisions. For
example, as stated repeatedly during the interviews, the
ultimate question is profit or loss and the people employed
are factors in that final question.

Despite the coldness of the bottom line of profit and
loss, several of the managers interviewed made a clear ex-
pression of their concern for the human element of the em-
ployee. With the authority to make final decisions about
personnel matters, one need not include the personal touch.
However, this personal touch was expressed as a factor in the
discussions of problems. Thus, although Step One is part of
a rational decision-making process and despite the fact that
the middle managers interviewed are deeply involved with
profit or loss, the diagnosis of problems is influenced by
the human element.

Step Two - Discovering Alternative Solutions

Question 4 - How do you narrow down the scope of a problem
            once you identify it?

In general, the managers interviewed did not indicate a
step-by-step systematized approach to narrowing the scope of
a problem. Most of the managers (eight out of twelve man-
agers) relied upon their experience, their conversations with
people, and, as one manager stated, he relies upon a "sub-
conscious intellectual process." This manager stated that
through this process which is in his brain subconsciously,
the narrowing of the scope of a problem merely emerges.
Although this explanation is vague, the manager expressed
great confidence in using this process as measured by his
success in applying it.

A total of four of the managers stated that they narrow
the scope of a problem by searching out facts. The efforts
to get the.facts varied from conversations with individuals
involved to a searching of records to a referral to another
department. One manager stated that once he acquires the
facts, he avoids any personal involvement in settling the
problem. This manager preferred to delegate the handling of
a problem to the appropriate supervisor.

Another manager stated that he attempts to narrow the
scope of a problem in terms of the department in which it
belongs. This manager refers to the hierarchical structure
of the organization and attempts to place problems in the

appropriate level as a means of narrowing the scope of the problem. For this approach to be successful a manager must have a clear understanding of the hierarchy in an organization, must be willing to work with this hierarchy, and must have support from his superiors. If any of these factors are missing, the mere placement of a problem into one or another department is more shuffling than narrowing.

One manager merely stated that he narrows down a problem by deciding upon various alternatives. He did not elaborate upon this viewpoint except to state that he tries to weigh the pros and cons.

One response to the question which was different from all others was the presumption of one manager that all problems come from a change. He referred to this premise as a "causal change." This manager did not suggest that he would try to analyze the causes behind changes in company policy. Instead, he explained that an analysis of the impact of a company change on personnel would help him to narrow the scope of a problem. Whether this approach focuses on symptoms rather than actual causes is debatable, but the concept is interesting and is laden with implications. For example, what would be done if a policy change were profitable but unpopular among the workers? What authority does the manager have to minimize the effects of unpopular changes? If change causes a problem, what are the implications for progress? How is the impact of the change assessed?

Question 5 - What are some typical strategies utilized when
             you hear about a problem?

A wide range of responses was obtained in answer to
Question 5. Many of the answers were not actual strategies
but focused on gathering facts and then dealing with the
problem. The latter reference did not lead to much variation
in specifying strategies. Even when strategies were stated,
few of them indicated creativity. The managers who specified
strategies seem to focus on past practices and company policy
as major approaches. Examples of these strategies are, "Go
back to previous employer for information," "Send a policy
memorandum," and "Check with a supervisor to see whether he
can handle the problem."

Two of the managers stated, that they react to "gut
feelings." These managers did what they thought best based
on experience, knowledge of company policies, and related
concerns. .

Of the strategies stated the following are typical: 1)
use a direct approach, 2) use a one-to-one approach in an
informal social environment, 3) make decisions quickly, 4)
use the no-fault finding approach (diffuse fault; don't in-
tend on hanging someone publicly), 5) be consistent, 6) give
an ultimatum, 7) set up parameters to give workers an escape
hatch, and 8) consult with the person who previously held the
managerial position. The above strategies do not reflect
Machiavellian approaches. The approaches seem to be

straightforward and devoid of cunning. Perhaps there is some manipulation involved in the straightforward strategies specified, but none is apparent. The reason for the absence of examples of clever, manipulative approaches cannot be stated with certainty. Perhaps the managers did not wish to admit that they use these approaches or perhaps they are truly not manipulative.

Question 6 - What are your data gathering sources (in-house and out-of-house)?

The use of computers (six of the twelve middle managers) and the use of company library materials (three of the twelve middle managers) are the two main sources of data gathering for decision making. A few managers (four out of twelve) consult with experts in the field for data gathering purposes. There is little variation in response to Question 6. One manager stated that there is "no outside influence or interference in data gathering." Perhaps this manager considered outside sources as interferences and, therefore, did not comment on the values of consultants and other experts.

Implicit in the lack of major involvement with outside sources is the assurance of all of the managers interviewed that their experiences would provide them with the data needed without seeking assistance from others.

Four managers stated that they used people within the company as a data gathering source. One manager stated that

he seeks information from "superiors who sway the opinion of others."

Another manager relies on personal on-site observation to gather data about problems. His focus is on job performance, and so on-site observations would be appropriate.

In addition to computer printouts, one manager uses a performance index incorporated into a Management By Objectives (MBO) approach. This manager consistently gave responses which were systematic, organized, and factual.

Except for the three managers who stated that they use company libraries as data gathering sources, there is little evidence that research materials are used by the managers interviewed. Computer printouts may provide needed information in some measure, but research studies on relevant business issues were not mentioned. With the emphasis on personnel matters highlighted in the responses to Question 2, it is interesting that no manager interviewed referred to research studies on personnel, morale, or motivation. The application of the research on these topics could give the managers clues to data gathering for purposes of decision making.

Step Two - Summary Comments

Not much insight was provided by the managers in relationship to Step Two. They spoke of alternative solutions but did not specify many of them. The majority of middle managers interviewed seem to toe the company line and relied

upon factual information in their decision making. However, subjective elements did appear. References to gut feelings, to allowing employees to have an escape hatch, to informal discussions with employees and with peers reflect this subjective approach. The strategies stated were not unusual and were more direct than indirect. Research findings relevant to areas of concern were not mentioned by the middle managers except for computer printouts and reports on file in the company library. The latter two sources seemed to emphasize specific company related goals rather than human relations concerns.

Step Three - Analyzing and Comparing Alternatives

Question 7 - What are some factors considered in developing a solution?

When Question 7 was presented to the middle managers, they seemed to need some prodding in order to give a response. The factors listed in the Interview Guide under Question 7 were not made available to the interviewees, but several of the factors were presented as examples. In responding to the question, each of these suggested factors was repeated by the majority of the middle managers. There were other factors cited, but the most frequently mentioned ones were those provided as prods. The usual reaction, when, for example, legal factors were suggested during the interview was, "Oh yes. Of course, legal factors are important."

In eight instances the managers mentioned consequences as factors in developing a solution. A typical concern related to consequences was voiced by one manager who said, "You have to be concerned about whom the decision will affect." Related to this point, four managers considered the impact of a decision on the well being of an employee and one of these four considered the impact of the decision on the employee's family. One manager stated his concern for the political consequences of any decision. This manager stated these political concerns were not the highest priority but any decision would have to be weighed in terms of some political considerations within the organization.

Only two managers singled out company policy as factors to consider. One of these two managers placed policy as a low priority. The previous references to hierarchy and working with superiors and reading company manuals would seem to indicate that company policy would be mentioned more frequently. However, three managers who did not mention company policy did seem to recognize the importance of company goals and "best interests."

One of the managers stressed the importance of communication in reference to Question 7. His interpretation of communication was to keep employees well informed through every phase of the decision-making process. This manager insisted upon the importance of keeping channels of communication open so that all involved with the decision would be

aware of relevant information. When some probing on this response was attempted, there was no indication that the time involvement for the success of this open communication factor was analyzed carefully. When asked about the results of the time investment necessary for open communications, the answer given was a vague, "It is good for people to be involved." The concrete nature of this response is obviously lacking.

Question 8 - What authority restrictions do you have?

The responses to this question were very succinct. The most frequently mentioned restriction was financial (five of the twelve managers). Only three managers mentioned company policy. One of these three plus one other middle manager stated that they have no authority restrictions in their job, and a third manager stated that he develops his own restrictions in terms of cost effectiveness. Two managers referred to legal restrictions, one citing Affirmative Action and the other citing notification prior to firing personnel. One manager dismissed the whole question with an answer, "My restrictions are common sense dictated."

Although the array of answers is diverse, there is a pattern which indicates that there are few authority restrictions identified by the middle managers. One of the managers who mentioned legal factors is head of the law department within the company. Since legal concerns are generally acknowledged to be important in the world of business, it is

interesting that only two managers identified this authority
restriction. Whether authority is as clear and as strong as
the responses indicated could not be determined during the
interview but the assumptions by the managers that they do
have adequate authority are clear. Since middle managers are
in fact not in the upper echelon of an organization, it is
evident that they have superiors who can overrule them.
Therefore, their assumption of their strong authority is
questionable.

Question 9 - How do policies and/or rules hinder or aid your
            decision making?

The responses to this question were grouped into two
categories: aids and hindrances. It was anticipated that a
variety of responses would be given under both categories.
There was some variety under hindrances but eleven of the
twelve middle managers gave the same type of comment as an
aid. These managers stated that the policies serve as guide-
lines, clarifications, and time savers. One of these man-
agers said that with a policy there is no need to make a
decision. One manager stated that policies do not aid at all
because they are vague. A positive aspect of the comments,
except for the latter, is that policies allow employees at
all levels to know the position of the company on important
matters. Another manager credits company policies for the
success of the company in that they provide uniformity of

direction. The similarity of responses is an indication of high level consensus but does not lend itself to much analysis.

The responses to hindrances were varied. The majority of criticisms of policies centered on the detail work involved in implementing the policies. For example, one manager stated that the policy on chain of command slows down progress. Another one stated, "Policies take away individual creativity." Another stated that, "There are too many checks and balances."

In a different vein, one manager criticized the impact of the policies. He said that policies, "are meant for clerical staff, not professional people."

It was anticipated that the responses to this question would lead to important analyses. In spite of some variation in the responses to hindrances, there is a great deal of similarity in what the managers stated as aids and hindrances. Therefore, the expectation for analysis was premature.

Question 10 - What is your support base?

In general, the middle managers recognized superiors as their support base (eight of the twelve managers). For the majority of these eight managers, there were no additional comments. Whether they believe that the mere mention of superiors was sufficient to explain a support base could not

be determined from the interview, but the fact is that there was very little elaboration except for an acknowledgement of support from the hierarchy. Three of those who mentioned superiors as their support base also mentioned subordinates as their support base. Perhaps this reference was an attempt to cover all bases, but probing did not reveal interpretations.

One manager who emphasized that the "decision-making process is a collective one," stated that he does not need a support base because, "Everyone is involved and that is a support base." This manager did not seem to mind the fact that he contradicted himself. Two of the managers suggested the concept of comaraderie by stating that their support base comes from peers.

One response which is different from the rest came from one manager who stated that the data he collected from research served as his support base. He felt confident that his decisions, substantiated by facts, would be strong enough to avoid countermanding. This manager may be overlooking other factors which may lead to a rejection of his decision regardless of his research. Such factors include politics, expediency, ethics, and consequences.

Although one manager stated that he had no support base and did not comment further on this point, he seemed to stand

alone in this viewpoint. The message conveyed by the managers in general is that they received strong support from their superiors. These managers were confident that their superiors would back them in the decisions they made.

Question 11 - Can you give me any instances where you used
              creative brainstorming in decision making?

In general the answers to the use of creative brainstorming were not creative. Two of the managers stated that brainstorming was not used in their meetings. Among those who stated that brainstorming was used (ten of the twelve managers) all but one described brainstorming in its typical aspect. The one exception, through creative brainstorming with his department, came up with the idea of a VIP day for all employees. During this day the employees were given special treatment (refreshments, leisure time, and music). The purpose of this special treatment was to improve the morale of the employees as a necessary ingredient in involving them in a forthcoming company decision.

This latter application of brainstorming was the only one that had any semblance of creativity. The managers who used brainstorming considered this approach creative in itself and did not specify any unique applications of the results.

An interesting contradiction in the use of brainstorming in decision making can be noted. One manager maintained that

brainstorming is too time consuming and another manager stated that brainstorming is a time saver. Although the interview data did not substantiate a reason for the latter view, possibly the manager meant that the time investment in brainstorming would shorten the time for decision making once the brainstorming had taken place. A further implication is that people are the best resources for decision making and brainstorming certainly involves people in a free and open exchange of ideas.

Step Three - Summary Comments

The responses to the questions relating to Step Three did not shed much light on the use of alternatives. Factors such as time, money, and legality were identified as considerations in developing a solution. The impact of consequences was recognized. The advantage of company policies as guidelines was also recognized. In terms of support base the managers identified their superiors and in terms of authority restrictions the managers indicated that they have sufficient authority backed up by their superiors to make decisions. There were few indications that the hindrances resulting from policies could be handled creatively. The managers did not refer to alternatives as means to work around the restrictions of policy hierarchy and related restraints.

The reactions to the question on brainstorming did not reveal an emphasis on alternatives. These responses are

interesting in that brainstorming is of value to the degree
that it allows alternatives to emerge. There may be a group
interaction advantage to brainstorming which was not men-
tioned by any of the respondents, but the stated results of
brainstorming sessions were in themselves not creative and
not varied.

Perhaps the nature of the questions used in the Inter-
view Guide were not sufficiently precise to stress the use of
alternatives. The interview sessions were open ended and no
one appeared to be stifled. Words such as "alternatives,"
"options," and "varied approaches" were discussed during the
interview. Only when the analysis of the data was attempted
was it discovered that the responses did not reveal many
alternatives. If the problem is in the Interview Guide or
the interview process, this realization is after the fact and
it may represent a limitation of this study in reference to
Step Three. If the problem is not in the instrument or in
the process, the type of responses provided do not demon-
strate much recognition of alternatives and certainly not
much use of them.

Step Four - Selecting a Plan to Follow

Question 12 - How does research help you in decision making?

Reliance upon research is a necessary component of
decision making according to eleven of the twelve middle
managers. The one exception stated that he does not rely

upon research and he never uses the library or textbooks to gain information about decisions. This same manager stated that the research he needs (contradiction not intended) is in the files and procedure manuals of the company.

Those managers who use research regularly gave the usual reasons for its use. The most colorful comment on the value of research is, "Without research you're shooting from the hip." Another manager stated that research stimulates creative thoughts which are important in decision making. Three of the managers use research from a variety of sources as well as initiate research within their own departments. The information generated (demographic data about employees and clients, and production trends) from this research is used to make future decisions particularly about personnel and about product concerns.

Among the sources mentioned from which research is derived are journals, newsletters, outside consultants, company manuals, library, and computer reports.

In responding to the use of research in decision making, none of the managers mentioned research reports dealing with decision making itself. The managers seem to consider research to be reports on products, costs, and staff productivity according to variables of sex, education, and years of service. As noted previously, there was no stated recognition of applicable research on morale, organizational development, human needs, or organizational structure.

Question 13 - Do you encourage participatory decision making?

Every manager stated that he encourages participatory decision making. When the responses were probed, it became apparent in every case that the managers have an inaccurate view of the participatory aspect of decision making. The managers spoke about the involvement of some staff members in decision making but stressed the point that the final decision belongs to the managers. Thus, the managers were unanimous in their willingness to involve staff members to discuss some factors relating to a decision, but the decision itelf was regarded as the prerogative of the manager. For example, one manager answered the question by saying, "Absolutely. But I have the final decision."

This authoritarian concept of participatory decision making suggests that the managers may not know the essence of staff participation in decision making. Nine of the managers are willing to listen to employees "to an extent," but they do not seem to be willing to yield to a staff judgment. To water down the authoritative aspect of the foregoing comments, seven of the nine managers said they would yield to the staff decision if the staff members could convince the managers of the value of the position taken. A quote which indicates the condescending attitude of some of the managers follows: "Participatory decision making hasn't been beneficial but gives everyone team spirit. It is our company push for the 80's."

One manager has an interesting approach to participatory decision making. He solicits memos from his staff in which "suggestions, revisions, and ideas" are communicated. This manager reads these memos in the privacy of his office and he decides what to do with them. This manager boasted about the advantages of staff involvement in this approach.

Step Four - Summary Comments

In general the middle managers interviewed used their own judgment in selecting a plan to follow among alternatives identified. As previously noted the middle managers did not identify many alternatives. Where alternatives were recognized, little use was made of research and of participatory decision making. The type of research used was not much more than facts and figures concerning company oriented problems. The broader scope of research was not recognized or at least not identified. An example of the narrow scope of the research used is the inaccurate view of the meaning of participatory decision making. Whether or not participatory decision making is a good idea was not the intent of the question during the interview. However, this concept is very popular in the literature of management. The inaccurate interpretation of this concept may not be due to a lack of research awareness but it can be related to that possibility.

Another way of explaining the comments made about participatory decision making is that the managers may be aware of its meaning and may be aware of research studies, but they prefer not to apply the concept in practice. The question comes to mind as to whether research is applicable to real life situations. No matter what the answer, the fact is that the managers are not applying participatory decision making as it is intended. Perhaps by reading an authority such as Rensis Likert the managers could learn more about this concept.

Step Five Evaluation

Question 14 - How do you evaluate decisions made?

In the majority of instances (nine of the twelve managers) the evaluation of decisions made was in terms of the effects of individual decisions rather than in terms of collective decisions relating to company goals. References to formal evaluation were made by four of the twelve managers and in each instance the formal evaluation was on employee factors such as attendance, performance, and salary. In a sense, every decision has some relationship to the effectiveness of the company and in that sense company goals were critical. In the responses given, however, the focus was on the effects of a shorter range perspective. Reliance on computer printouts seemed to be the most conventional evaluation feedback.

A combination of informal and formal means typify the answers given. The important element in the evaluations of decisions was measurable results, particularly in terms of cost factors. In general, the evaluation was not precise because the decisions seem to be based on a variety of factors which are not organized. There was no unifying concept within the responses of any one manager in relationship to the evaluation of decisions except in measurable aspects. There was no reference to any process for the evaluation of the decisions. No reference was made to how evaluative procedures were applied. The managers said that they did look at job performance, printouts, and they did converse with employees. They did not say, however, how they evaluated results.

Only two managers mentioned employee morale factors. One of these managers stated that a means of evaluating a decision made is "the excitement level of the personnel." Similarly, another manager asked the question, "Is employee reaction more positive?" Neither of these managers stated how evaluation of these factors would be made. The fact that only two managers mentioned morale factors does not mean that the other ten did not recognize the importance of morale as a means of evaluating decisions. However, since only two managers mentioned morale factors, it is clear that regardless of what the other ten managers were thinking, they did not place enough importance on these factors to mention them.

Question 15 - Is there a recourse or grievance opportunity for
             those affected by your decision?

In eight of the twelve responses, there was reference to
a formal system of recourse or dealing with employee griev-
ances. The responses did not deal with the existence of
unions, and so there is no union implication intended by the
responses.

In six instances the managers referred to an open door
policy as a means of recourse. The open door policy was
interpreted by the managers to mean that a person affected by
a decision could meet with the manager to discuss the matter
without concern for a formal system. In two instances, how-
ever, the open door policy was mentioned as well as a formal
system.

Several managers (five of the twelve) encourage those
who seek recourse to contact the personnel department. In
these five companies there are procedures under the jurisdic-
tion of the personnel department for an employee to follow.
These procedures range from a simple memo sent to all parties
involved to an ombudsman approach. In the latter example,
there is an internal company person who acts as an impartial
third party who deals with people who feel they have been
treated unfairly.

Another recourse mentioned by five of the twelve man-
agers was to "contact the boss." This contact could be in
writing or in personal appearance. One manager stated that,

"Every employee has the right to go up the chain of com-
mand." No repercussions were stated explicitly in terms of
this comment. Attempts to probe this matter did not lead to
any further information. However, another manager stated
that his advice to employees is, "Tell me," because he be-
lieves that dissension is created when an employee goes over
his head.

Question 16 - Do you consider yourelf a good decision maker?

All twelve managers interviewed considered themselves to
be good decision makers. The reasons for this self assess-
ment are reflected in the following comments. "Most deci-
sions I make have proven to be right." "My track record is
the indicator." "Where I am is an indication that I'm a good
decision maker."

A very interesting comment is, "I could make decisions
on less information, instead of overdoing it." By this
statement the manager means that he is in the habit of
spending too much time gathering superfluous information.

Two of the managers included affective elements in their
responses to the question. One said, "I am cognizant of how
the decisions affect other people." The other said, "I have
a decent feeling about the decisions I make." The most so-
phisticated response came from a manager who said, "I have a
system I use to make decisions. I apply it and immediately I
increase the likelihood of making a better decision."

The confidence expressed by all twelve managers is a positive ingredient for any company. In terms of affective factors the positive evaluations are good in themselves. It is obvious that there should be no morale problem among these managers in terms of this one dimension of their job. No one mentioned the pressure involved in facing the consequences of a decision. In spite of the recent emphasis in our study on stress and coping, no one referred to these matters. The fact is that the managers rate themselves as good decision makers.

Step Five - Summary Comments

Although the respondents specified end results as a major factor in evaluating the decisions they make, a subjective element emerged. In fact, this subjective element allowed the managers to rate themselves as good decision makers without exception. The subjective aspect which emerged is also reflected in the apparent lack of awareness by the manager of the impact of their decisions. The managers seemed to focus on the evaluation of company goals which may have been achieved regardless of specific decisions which they made. Little reference was made to morale factors in the comments about evaluation of decisions. Comments dealing with decisions made did not differentiate between crisis decisions and other decisions which require judgments to be

made. · This lack of differentiation was not due to confusion
of the two but rather to a lack of mentioning them.

The opportunities for recourse within a company depend
upon company structures, whether they be formal or informal.
The only discernible pattern is that where formal procedures
exist, these formal procedures are believed by the managers
to be clear to all within the company. The many informal
grievance procedures are surprising in view of the major
legal concerns which most companies face. Informal grievance
procedures may lead to legal confusion because they lack the
preciseness of formal grievance procedures. No explanation
for these informal procedures was given.

Question 17 - Can you explain your rationale for decision
             making?

As a means of pulling together the sixteen questions
used in the Interview Guide and as a means of securing data
on the approach of each manager to rational decision making,
Question 17 was asked.

In general, the rationales provided contain similar
elements to the five steps in the model identified in Chapter
I and explained in Chapter III. The similarity between the
steps used as a structure in this dissertation and each ra-·
tionale provided by the managers (designated as M1 through
M12) can be demonstrated by the following:

M1 1. Find out facts (review files, talk to people, observe).
      2. See if situation can be changed.
      3. Consider alternatives.
      4. Prioritize.
      5. Consequences.

M2 1. Get information - what are the facts.
      2. Analyze.
      3. How has situation resulted in the past.
      4. How it affects others - consequences.
      5. Occasionally consider alternatives (not always).
      6. Make a decision.

M3 1. Get input from people involved.
      2. Do additional investigation.
      3. Analyze the facts.
      4. Verify facts germane to making decision.
      5. Make decision based upon verifiable facts. Knowing corporate policies. Based on experience.
      6. Follow-up to determine results.

M4 1. Look at criteria set up for success or failure of project.
      2. Set criteria for end product.
      3. Gather information - library.
      4. See if it fits criteria. Decision against established set of criteria.
      5. Challenge it - use judgment and experience for rationale.
      6. Look up alternatives throughout (positive and negative).
      7. Solve the problem.
      8. Ultimately come across with decision.
      9. Evaluation.

M5 1. Get facts.
      2. Look at options.
      3. Weight long-term effect of decision as well as short-term resolution.
      4. Have people involved collectively support decision. (no fault)
      5. Look at options.
      6. Implement as soon as possible.
      7. Whole process is evaluative process.

M6 1. Self-confidence - doesn't have to be a rationale.
      2. Make list of advantages and disadvantages after collecting facts.

M7 Problem - Concern - Need
1. Get facts.
2. Consult with experience individual, experts
   in the field.
3. Make decision.

M8 1. Get information.
2. Look at alternatives.
3. Consider consequences.
4. Make decisions.

M9 1. Decide scope of problem. How important is it.
      Is one of any number of decisions okay.
2. Get information.
3. Isolate alternatives.
4. Look at consequences.

M10 1. Look at company goals.
2. What is best way to achieve it.
3. Get best resources.
4. Make decision.

M11 1. Find all information available - talk to people.
2. Make decision.
3. Follow-up if necessary.

M12 1. Identify problem - state what problem is.
2. Get the facts.
3. Establish inner relationship between all of
   data - what facts are related (analysis).
4. Identify probable causes.
5. Prioritize.
6. Select problem cause.
7. Eliminate cause, correct, change and approve
   decision.
8. Make decision objectives (desired and required
   objectives).
9. Draft alternatives.
10. Measure alternatives to required objectives.
11. Do risk index - if I choose what could go wrong.
12. Choose decision that meets all required objec-
    tive and high number of desired objectives.
    (Kepner and Trago - Rationale Manager)

Each manager was able to provide a well organized ra-

tionale for decision making. The information provided for

the rationale was listed in a step-by-step fashion, but the

enumeration of each step was provided after the data were recorded. This enumeration was for purpose of clarification of the number of steps and was not a substantiation for the rationale stated.

The range of the steps in the rationales provided varied from two steps to twelve steps, but there were common elements in all of these rationales. The rationale with the least amount of clarity was provided by M-6. This manager did not see the need for an elaborate rationale and that in itself served as his structure.

The most elaborate response came from M-12 who stated that he had had a great deal of inservice in decision making. This manager stated a rationale which appeared to be memorized. Without hesitation he listed twelve steps and identified the model which served as his source.

In eight instances the managers included a direct or indirect reference to alternatives. This reference is interesting because in the preceding sections on the analysis of their responses, it was noted that few managers made reference to alternatives. This inconsistency obviously can have an impact upon the company served by these managers. These managers seem to recognize the importance of alternatives but do not seem to identify them as aspects of their decision making except in answer to Question 17.

Most of the specifics contained in the listing of each rationale indicated by the managers have been treated in the chapter. The major discrepancy between the steps in the rationale provided by each manager and in the previous comments is in the area of alternatives.

Additional Information

Question 18 - Are there any additional comments you would like to make with regard to decision making?

This open ended question was offered to allow the managers to give further views on the process of decision making. Four of the managers did not offer any additional comments and no attempt was made to elicit comments from them. Of those who did make comments three managers stated that they enjoy making decisions. The remaining five did not mention the words "fun" and "enjoyable" but they did state that they regard decision making as rewarding for them. One manager stated that, "For the effective manager the number of problems that occur should be minimal." One of the managers who specified the enjoyable aspect of decision making stated that this process, "is enjoyable when you have authority and power." As pointed out in the chapter, the results of the interview show clearly that the managers interviewed regard their authority and power to be sufficient to make decisions.

An interesting comment from one manager relates to the concept of stress which was notably absent as a major

consideration throughout the interviews. This manager said, "Anxiety stems from a lack of making decisions. Make them and get them off your mind."

The comments made in reference to Question 18 did not provide much variation or additional viewpoints in reference to the data collected previously. The responses cited above are merely examples of comments made by the managers. They are not analyzed in depth in this section of the dissertation because their significance is minimal and the points to which they relate have been analyzed throughout this dissertation.

Responses from High School Principals

Step One - Diagnosis

Question 1 - How do you become aware that a problem exists?

There is no apparent systematic way in which the principals interviewed become aware of a problem. Two possible exceptions to this statement are indicated by one principal who stated that there is a clear line organization in his school and one who said that, "a good line" of communication exists in his school. The suggestion that a well organized line and staff structure enables the principal to become aware of problems is an obvious inference from the first comment. The "good line" of communication expressed in the second instance, although not defined specifically, suggests that communication channels are less than haphazard. If,

however, the "good line" merely means an open door policy, the communications may be satisfactory but a question can be raised concerning a systematic approach to these communications. With an open door policy, how can the principal control his time, his priorities, or his mental processes? A more systematic approach such as setting appointments, setting aside blocks of time for interruptions, and blocks of time for privacy can keep the door open but can also provide an organized and possibly more efficient "good line."

The principals cited many sources which made them aware of problems. There were no surprises in the sources indicated, although only one principal mentioned the secretary and only one principal mentioned the custodial staff as those who help him become aware of problems. The role of the secretary is so crucial in schools and the problems in maintenance are so easily noticed by the school patrons that mention of these sources by only two principals is difficult to understand.

Other staff members were mentioned by the majority of the principals in response to Question 1. In nine of the twelve instances the principals specified that their subordinates (assistant principals, department chairmen) helped them to become aware of problems. Also, in ten of twelve instances teachers were mentioned as sources of problem

awareness. Although these references to subordinates and to staff are frequent it is surprising that not all twelve principals referred to both groups. It is difficult to envision a school where the principal does not learn about problems from subordinates and staff.

In a similar context it is also surprising that only three principals became aware of problems through the central office staff. It would be expected that the principals are in closer contact with their central office administration. This close contact is essential for formal and informal communications as well as for the smooth operation of the hierarchy. If only three principals in this study are in sufficiently close contact with the central office so that problems become known through this source, the majority of the principals seem to be in need of developing closer contacts with their central office administration.

Seven of the twelve principals interviewed referred to students as a source of problem awareness. These seven principals undoubtedly learned much from their contacts with students. Students can offer many clues and insights about problems affecting schools. Apparently five of the twelve principals do not regard this valuable source as important enough to mention.

As a supplement to the sources of problem awareness from subordinates, from central office administration, and from

students, eight of the twelve principals mentioned observation in answer to Question 1. The observations were formal and informal, but both approaches had subjective elements. The subjective aspects of the observations allowed the principals to depend heavily on their own insights as a source of becoming aware of problems.

Although the specific comments overlap and several were mentioned by more than one respondent, only one principal used all of the above mentioned sources for problem awareness but eleven of the principals overlooked at least one of these sources.

A total of nine principals acknowledged parents and community as sources for problem awareness. The one principal who mentioned the "good line" of communication is among the total, indicating some measure of practicing what one preaches. One principal stated that most of what parents communicate are rumors but he is willing to investigate them.

In spite of the fact that there was no unanimous agreement among the twelve principals interviewed on any one source for problem awareness, the comments during the interview suggested that most reliance in this matter is placed upon the assistant principals. The responsibility for the area of authority delegated to an assistant principal requires mutual trust and good communication between the principal and his assistants. This view was expressed in

different ways, but it was stated clearly by one principal who said, "Assistant principals have responsibility for daily decisions. They must keep in contact with me."

Even though ten of twelve principals stated that teachers helped them to become aware of problems, a typical attitude was expressed by one principal who said, "Teachers do not have a broad scope. They are aware of problems in their area only." Another principal said, "Teachers usually make me aware only of curricular problems in their department." Even if principals are correct in their view that the teachers can inform them of problems in a limited way, no principal seemed to recognize that all of these limited data when put together can give him a global picture of the school. The principal who is unable to piece together the separate bits of information which form the whole will be missing out on a valuable source of information.

Question 2 - What are the kinds of decisions with which you were concerned?

In answer to Question 2, eleven of twelve principals mentioned personnel as a major area for decision making. In responding to this category, nine of the twelve principals interviewed referred to the hiring and firing aspect of staff members. All nine principals stated clearly that their responsibility in these concerns is limited by law but that they are actively involved in making recommendations about

hiring and firing. All nine added that their recommendations are almost always approved by the Board of Education. Although evaluation of staff is implicit in personnel decisions only two principals specifically mentioned evaluation as an area in which they make decisions.

Another major area of concern (eight out of twelve principals interviewed) is curriculum. The decisions involved with this area range from leaving "the matter to experts" to the assignment of an assistant principal to be in charge of curriculum, including program development. In those schools where an assistant principal was given responsibility for curriculum matters, the principal does not have an active role in these concerns except when staff or budget matters require decisions. Thus, the authority of the principals in the area of curriculum is maintained at least indirectly.

The responses from the principals suggest that they consider themselves responsible for the entire day-to-day operation of the school building. Specifically, however, only six principals specified "day-to-day" operations as an area in which they must make decisions. Relative to these types of decisions, one principal stated that he makes "impromptu decisions." He referred to "crisis management" in reference to bomb threats, maintenance emergencies, and transportation problems. Although this principal commented on the crisis nature of these types of decisions, he said

that his plan for decision making gives his decisions "a measure of consistency."

A total of six of the principals interviewed stated that their concern is with budgetary decisions. Probing revealed that they are responsible for the allocation of funds which have been budgeted in the central office and made available to their schools. None of these principals has a major role in district budget development. On the building level, however, all six of the principals who referred to budget decisions maintained that their decisions about allocations are not overruled by the central office staff. Thus, although the principals have sufficient authority in matters of budget, they do know their limits.

Decisions dealing with building facilities were mentioned by three of the twelve principals interviewed. One of these principals elaborated by stating that he made a decision to install new floor tiles in a corridor. He sought and received approval from the school board for his decision but he was overruled in his choice of the color of the floor tiles. There was no discussion about other decisions regarding building facilities made by this principal. The one example he gave was not only a one-time decision but also the decision he did make was modified by the board. The authority of this principal to make decisions about building usage is questionable by virtue of his own example. The second

principal who referred to building facilities as an area of concern stated that he made decisions regarding the use of the building by community groups after school hours. This principal did not mention anything about board policy concerning building usage, even though this type of policy is found frequently in school board manuals. The third principal in this category did not give specifics regarding his concerns about building facilities. He did say that he considers himself responsible for the facilities but his comments did not lend themselves to analysis.

Three of the twelve principals stated that decisions dealing with student behavior are made by them. One of these three referred specifically to suspension, a matter that legally involves the principal. It seems strange that because of the legal implications for principals in this matter, none of the other principals interviewed (eleven out of twelve) commented on this level of concern. The other two principals, however, did not clarify their relationship with the deans of discipline in their schools. Since these two principals have delegated the responsibility for student behavior to either an assistant principal or a dean of discipline the role of these two principals in the area of student behavior is not clear and may not be necessary if other administrators take over this responsibility.

Several specific areas of concern for decision making in addition to those above included conflict resolution (one of the twelve principals) and staff morale (one of the twelve principals) concerns. Perhaps the most unique response to Question 2 was made by the principal who said that "I am concerned with the improvement of the managerial style of my administrators." This principal spoke about inservice, the need for a strong team effort, and the need for constant self improvement. Answers to subsequent questions by this principal during the interview indicated that he is sincere and consistent in these beliefs.

Question 3 - With whom do you discuss perceived problems?

The majority of the principals (nine of the twelve principals) stated that they discuss perceived problems with subordinates. By subordinates they referred to assistant principals, department chairmen, and deans. (The use of the word subordinates is for purposes of categorization. The word was not used by the principals interviewed.) The popularity of this reference is consistent with the expressed views of all twelve principals interviewed who spoke of the values of a team effort. Of the two principals who did not name "team members" one stated that he consults with "key people on every issue" and another stated that "We operate in a team setting for decision making." Obviously the members of these teams include other administrators beside the

principal, and so all twelve principals interviewed, directly
or indirectly, discuss perceived problems with their subordi-
nates.

Few of the principals interviewed (four of the twelve
principals) stated that they discuss perceived problems with
superiors. One of these principals emphasized that he always
discusses union matters with his superintendent and one spec-
ified personnel problems as the key issue which he discusses
with his superintendent. The clear and repeated reference to
the school building as the responsibility of the principal
and his staff is reflected in the responses to Question 3.
In spite of what appears to be a satisfactory arrangement for
purposes of discussing perceived problems, if only four of
twelve principals interviewed discuss problems with their
superintendents or with central office staff, questions of
communication, responsibility, and authority can be raised.

One possible answer to the questions raised can be found
in the responses of four principals who stated that they
discuss perceived problems with the people involved. One of
these four principals is included among the four who stated
that he discusses problems with the superintendent. Perhaps
the other three who responded similarly meant to include the
superintendent and his central office staff in their response
to Question 3. If this supposition is correct, there is more
indication that the principals discuss problems with their
superintendents. If not, the questions raised remain.

One of the principals stated that he discusses matters with key people. This reference is similar to the reference to discussions with people involved in the problem. One principal referred to the community people and two principals referred to students as persons with whom they discuss perceived problems. Throughout these various references, the democratic approach to problem solving is implicit.

As an extension of the latter point, five of the principals interviewed named teachers as persons with whom they discuss problems. Although only five of the principals mentioned the teachers, several others (three of the twelve principals) made at least indirect references to their staff. One principal answered Question 3 with the following quote, "We have a group of professionals who can make decisions. I do not make major mistakes because I discuss controversial issues with the staff. Decisions have to be shared." Therefore, as in the reference to discussions with administrative subordinates, there is sufficient indication throughout the interviews that the principals discuss perceived problems with teachers in more than the five instances which were specified.

Step One - Summary Comments

Consistent throughout the responses to Step One is the focus of the principals on in-house matters. The majority of principals become aware that a problem exists through their

own observations. Their major area of concern for decision

making is personnel. All of the principals interviewed dis-

cuss perceived problems with their administrative aides and

most discuss problems with their teachers. In serious mat-

ters (union issues, student suspension, hiring and firing of

staff) contacts are made with the superintendent of the

school district. Except for these types of matters, the

principals generally deal with problems by using resources

within the school building, including their own judgments.

All of the principals interviewed indicate an awareness

of a hierarchy in the building, with themselves at the top,

but they are very much involved with a democratic approach to

decision making. Their diagnosis of a problem in almost

every instance includes contact with the building staff.

Although nine of the twelve principals stated that prob-

lem awareness comes from parents and other community sources,

only one principal stated that he is concerned with decisions

relating to the community and only one principal stated that

he discusses problems with community people.

Step Two - Discovering Alternative Solutions

Question 4 - How do you narrow down the scope of a problem
           once you identify it?

The responses to Question 4 were uniform in several

respects. All of the principals interviewed said that they

try to gather the facts, ask questions, and try to analyze

the nature of the problem. Although these answers were similar, some of the additional comments made by the principals included differing views about their insights in narrowing the scope of a problem.

One principal said that he has a talented administrative staff and they should have the opportunity and must have the responsibility to narrow the scope of a problem. Another principal said that he tries to "solve problems at their lowest level possible." This principal believes that those involved with the problem should solve it and that only when solutions are not possible on lower levels in the hierarchy, does he become involved.

Another comment made by a principal with regard to narrowing the scope of a problem is to "look at it void of emotion." This principal spoke of the intellectual process of "isolating the variables" of a problem because he was very concerned about the effect of the problem on "various areas of the operation." These "various areas" were expanded by his comments during the interview to include the human element. A possible contradiction exists in this latter reference and the principal's attempt to remove emotion from narrowing the scope of the problem.

A somewhat different answer to Question 4 was provided by one principal who stated that he can narrow the scope of a problem because he "can anticipate problems well." His

advice is, "Try to become aware of a problem before it gets
to you." This principal is convinced that a well organized
hierarchy will serve as a filter in reference to problems.
For this approach to work well, it is necessary that the
hierarchy be well understood, the communication lines must be
open, and that trust within the hierarchy is at a high level.
In the absence of any of these factors a problem can be ex-
panded rather than narrowed. The principal who gave the
advice stated above seems to be aware of these concerns and
he expressed his confidence in the approach.

Question 5 - What are some typical strategies utilized when you
            hear about a problem?

The principals interviewed seemed to talk around Ques-
tion 5 prior to indicating specifics. They talked about
gathering information, being direct, communicating effective-
ly, involving others in decisions, and being democratic.
Typical comments included, "be honest, yet firm and fair,"
"convince people to make a change," "use the democratic ap-
proach," "allow participatory decision making," and "use all
the resources possible to get to the solution of a problem."

Focus on strategies was not apparent. During the inter-
view the term "approach" was suggested as synonomous for
strategy in order to get answers which were more germane to
the question. Some responses did suggest a strategy of

sorts. For example, one principal stated that he attempts to "find out if the problem is really a problem." He elaborated by saying that by use of the direct approach he can prevent a minor irritation from developing into a problem. This principal communicates with his staff and he encourages open discussion as a preventative measure to avoid problem situations.

Another principal referred to communication with subordinates but his strategy was to define a problem as clearly as possible "without damaging the integrity or the privacy of individuals." This principal did not clarify how he protects the integrity of the individuals mentioned, but it can be assumed that he respects the confidence of others. In this way the principal's emphasis on open communications as a strategy can be maintained.

One principal who obviously believes in open communication said that when he hears about a problem he "prints it in the school bulletin to point it out." This principal did not seem to be aware of possible repercussions from the staff such as morale, embarrassment, calling attention to what may be a minor problem, and similar concerns.

One approach mentioned by a principal which could be developed into an interesting strategy is to spend time analyzing whether the problem needs resolution. The suggestion here is that some problems fade away due to time,

priority, changes of circumstances, and related factors.

Rather than attack every problem with democratic involvement,

participatory decision making, and anxiety, this principal

made the point that some problems do not need resolution by

the administrator. If this view can be accepted by princi-

pals, a major change in their time usage and in their job

responsibilities could result. Consequences of the accep-

tance of this approach must be given careful consideration.

Question 6 - What are your data gathering sources? (In-house
            and out-of-house?)

Although only seven of twelve principals specifically

mentioned people as a data gathering source, all of them

implied that they gather data from people, primarily those in

the school buildings. The contacts with people were classi-

fied as formal and informal. The latter approach included

observation, conversation, and meetings. Only two principals

mentioned research or articles as a data gathering source

although two additional principals stated that they use the

libraries for data.

A total of seven principals rely on computer printouts

for data gathering. The data provided by computers were

specified as attendance, grades, and financial information.

With the emphasis on personnel matters cited as a major con-

cern in reference to Question 2, it is difficult to see how

the computer printout information can be very helpful to the seven principals who use it. The data on attendance may be of some value to these principals, but there appears to be no significant gain derived from the computer source.

Very few of the data sources listed in response to Question 6 indicate a close connection with the concerns voiced by the principals in answering Question 2. The reason for commenting in this analysis on computers as an example of what appears to be a vague data source is the expense created by computer usage. It is probable that the data sources listed by the principals do provide necessary information to help them with their decision making. Their responses, however, are too general to allow further analysis.

Step Two - Summary Comments

Most of the principals interviewed gave similar answers concerning data gathering sources and means of narrowing the scope of a problem once identified. The principals spoke of gathering facts and discussing data with people. The facts gathered are through observation, discussion, reports, and computer printouts. The latter two sources are intended to be concrete and objective but their application to major areas of concern is not clear. The confidence in people varied as reflected in the answers to strategies used. The principals are aware of their authority, but their use of

democratic approaches is a common thread running through their comments.

The strategies mentioned are very general. The common element emerging from the comments on strategies is working through people to arrive at the best solution possible. Since education is a people based occupation, it is not surprising that the human factor is given a high priority by the principals. The subjective results of the human element, although probably well recognized by the principals, were not reflected in their comments.

Step Three - Analyzing and Comparing Alternatives

Question 7 - What are some factors considered in developing a solution?

All of the principals interviewed listed legal factors as elements in developing a solution. The elaborations on legal factors range from the comment of one principal who said that, "The law is important but I am not often involved with it," to the comment of another principal who said that, "I'm up to my ears in legal matters due to contract issues and board policy." These two comments indicate extremes in how principals can view legal factors. Inservice for principals in matters regarding the law may help to bring these two views closer together. If principals are either not involved with the law or immersed in it, they need help. Not one principal interviewed made reference to the legal advice

advice which is available through the board attorney, through
the Superintendent of the Educational Service Region, or
through the State legal department.

A total of seven principals referred to time factors and
seven also referred to financial factors in responding to
Question 7. The mention of finance is consistent with the
responses to Question 2 (What are the kinds of decisions with
which you are concerned?) in which six of the twelve princi-
pals specified finance as an area of concern. Although the
totals are similar, those supplying the answers are incon-
sistent. Only three principals who specified financial fac-
tors as an answer to Question 2 also specified financial
factors as an answer to Question 7. Two principals who did
not refer to financial factors in responding to Question 2
also did not refer to finance in answer to Question 7. The
reasons for the inconsistency of responses for the seven of
twelve principals who mentioned finance in one instance and
not in another casts some doubt on the true relevance that
these principals place on financial factors.

In reference to time, the principals who mentioned this
factor seemed to believe that the mere reference to this
factor was sufficient to clarify what they meant. The gen-
eral implication was that there is not enough time to do
everything required of the principals and so some solutions
had to be weighed in terms not only of consequences but in

terms of time priorities. It would have been interesting to find out whether a solution acknowledged to be a good one but which took a great deal of time would be discarded in favor of a less desirable solution but which could be handled expediently. Attempts to probe this concern did not provide the data to draw a conclusion.

Consequences were mentioned by six of the principals interviewed. These principals related consequences to the impact of a decision on those affected by it, to the political ramifications of the decision (four of the principals specifically mentioned political concerns, although only two of these four also mentioned consequences as a separate factor), to the best interests of the student and the school, to feasibility in the long run, to philosophical consistency, and to morality. The range of concerns suggested by a reference to consequences is broad. The specifics listed can lead to additional factors to be considered in developing a solution. For example, the reference to morality makes one wonder about who shall judge, what are the degrees of morality involved, and what are the affective aspects of this concern. The matter of consequences can also be viewed as long range or short range, as suggested by one principal, and one consequence can lead to a chain of other consequences. To pursue this line of reasoning would be beyond the scope of this study. What is important is that many of the principals

recognized the importance of the consequences of their deci-

sions.

Question 8 - What authority restrictions do you have?

The principals interviewed did not cite many restric-

tions on their authority. They seemed to believe that they

have enough authority to do what they have to do although

they do recognize certain restraints. The comfort of having

enough authority is made clear by the one principal who said,

"Good judgment is a possible restriction." Whether this

concern is an authority restriction or a talent restriction

is debatable but the answer is unique among the others given.

The majority of principals interviewed (nine of the

twelve) who specified authority restrictions stated school

board policy as a limitation on their authority. The fact

that school board policy is a limitation on the authority of

everyone employed by the school district is a fact of law.

Why three principals did not mention this factor is not known.

The other references to authority restrictions were also

legal. One principal categorized all restrictions as

"legal." Contract restrictions were named by four of the

twelve principals interviewed and three of the twelve also

mentioned the Illinois School Code. No examples were given

to elaborate on these types of restrictions during the inter-

views. Once mentioned, the principals seem to feel no need

to explain these restrictions. If these restrictions are so
obvious that they need no elaboration it is peculiar that so
few principals mentioned them.

One principal mentioned that the cafeteria presents an
authority restriction for him. This principal explained that
he has no authority over the management of or over the food
service in the cafeteria. No further comments were made
about these aspects of authority restrictions. Since many
discipline problems occur in a high school cafeteria, the
question of who is in authority in the cafeteria is a major
unanswered concern.

One response to Question 8 which stands out from the
others is the statement of one principal who said, "I con-
sider moral restrictions." This principal stated that he can
make only those decisions which he considers to be morally
right. This principal indicated that he has a self-imposed
concept of morality. He did not explain the criteria for his
moral judgment.

Question 9 - How do policies and/or rules hinder or aid your
decision making?

The majority of the principals (ten of the twelve inter-
viewed) said that board policies serve as guidelines to their
decision making. One of these principals said, "If a policy
is well written, it structures your decision. It gives guide-
lines and you don't have to make a decision." No other

principal gave such acceptability to the policies but most who referred to policies as guidelines regarded this direction as positive. In fact, five of the ten principals in this category stated that the policies offer no hindrance to them.

Among the seven principals who stated the policies can hinder their decision making only one indicated a possible area of conflict created by board policies. This one principal stated that "Policies are designed to treat every situation the same. This direction is difficult in a school which promotes individualized instruction." Clearly, in this school, based upon what the principal has said, there is a need to clarify certain uniform aspects of policy which conflict with an emphasis on individualization.

Two other principals gave examples of how board policies can hinder their decision making. One principal said that policies are "sometimes slow and cumbersome." Another principal said "The policy includes too many steps to fire someone." These two comments may have merit but they are not indications of strong discontent with policies. Even if the discontent were strong, however, the comment about firing someone goes beyond board policy into the legal area of due process.

Question 10 - What is your support base?

In answer to the above question, three of the twelve principals mentioned the board of education and the super-intendent and one principal mentioned the superintendent and not the board of education. One principal said that he has no support base. Probing led to the conclusion that this principal is self assured and considers himself to be his own support base. During the interview, however, he made comments which showed clearly that he needs and has the backing of the superintendent.

Since only four principals mentioned the superintendent as their support base and only three principals mentioned the board of education and the superintendent, perhaps the other principals interviewed took for granted that their support base included their superiors. This supposition is made to try to explain only a few principals cited superiors in answer to Question 10.

There were variations in the responses. One principal stated that his support base consists of the whole gamut of persons including students, parents, faculty, and superiors. Another principal mentioned that his support comes from department heads and from "a faction of teachers, community, and students." Another principal stated that his support base stems from the philosophy of the school district.

Three principals gave answers which were different from the majority of other responses. All three said in one way or another that their support base comes from their reputation and experience. This view can be summed up by the one principal who said, "People rely on you as a leader and accept your decisions."

Step Three - Summary Comments

The principals interviewed were very clear in their acknowledgement of legal factors, time factors, and financial factors as they affect solutions to problems. The reasons for listing these factors varied, but they all related at least indirectly to consequences. Although few alternatives were specified in dealing with tentative solutions, the comments on consequences indicated that there are alternatives, including political influences, which are considered by the principals in determining solutions for problems.

The question of authority does not seem to be a problem for the principals interviewed. They recognize the limitations on their decision making due to laws, board policies, and union contracts, but there is no apparent difficulty in working with these restrictions. The comments on hindrances due to policy restrictions were minimal and did not indicate serious obstacles.

In general, although the principals are aware of the
support base of their superiors, the majority of principals
gave answers to the questions which reflect their confidence
and satisfaction concerning their decision making ability.

Step Four - Selecting a Plan to Follow

Question 11 - Can you give me any instances where you used
creative brainstorming in decision making?

The principals have a favorable attitude toward brain-
storming. Although the examples given may be questioned in
terms of their creative aspects, eight of the twelve princi-
pals interviewed stated that they use brainstorming in deci-
sion making. One principal gave a terse "no" as his answer
to the question. Another principal did not answer the ques-
tion directly and no amount of probing led to a clarification
of whether he uses this approach. He said repeatedly that he
contacts the superintendent in matters of "sensitive person-
nel problems" but whether he and the superintendent engage in
creative brainstorming in decision making could not be deter-
mined.

The other principals had more favorable things to say
about brainstorming in decision making. Their answers range
from "all the time" (three of the twelve principals) to "dur-
ing weekly meetings" (two of the twelve principals) to "pre-
dominantly in unique situations" (one of the twelve princi-
pals).

The example of a creative brainstorming session was explained by one principal who said, "I have two agendas for my meetings, one open and one hidden. I go around the room and ask each teacher to say what's on his mind. From that I try to blend their views with my hidden agenda." This principal elaborated on his group dynamics background and he insisted that "A good communication system is fundamental to decision making." This obvious inconsistency was not pursued during the interview.

Two principals spoke positively about brainstorming in decision making but neither one uses this approach in making his decisions. One of these principals when asked about his use of brainstorming said, "We used it in the seventies for school scheduling, but we don't use it very often now."

The use of brainstorming in certain instances was mentioned by four principals. One of these four did not specify what he meant by "certain instances." The other three principals who said that the use of brainstorming "depends upon the problem" gave "attendance," "scheduling," and "sensitive personnel problems" as examples. The variation in these three examples suggests that those who accept brainstorming as an approach to decision making can apply this approach appropriately to almost any problem.

One principal dismissed the whole question with the response that "Brainstorming is gimmicky."

Question 12 - How does research help you in decision making"?

Mixed responses were given by the principals to this
question. Three of the principals emphasized the importance
of research. One of these three said, "I can't make a deci-
sion without it." Another said, "Research is functional for
my purpose."

Four principals stated that they use research to some
extent. One of these principals said that, "Bloom is good
for help in writing objectives." This same principal also
said, "Most of the research is useless." Another of the four
principals said that he relies on research "whenever the need
is felt and the purpose is served." He stated further that,
"A lot of research is ivory tower. Research is good in the
fields of affective teaching, evaluation, and inservice. I
don't depend on it too much." Another principal said that
research is valuable "only for major decisions." A similar
comment was made by a principal who said, "Research comes in
handy for curriculum change."

One principal gave an example of his reliance on re-
search provided by the Gallup Poll. During the interview
this principal referred often to the importance of research
and to his use of it. His specific reference to the Gallup
Poll suggests that his concept of research needs some clari-
fication.

One of the twelve principals interviewed stated emphatically, "I don't read research."

The foregoing responses reveal that the principals interviewed are not uniform in their understanding of research or their use of it. Those who commented negatively on the values of research made their points more strongly than those who spoke of the values of research.

Question 13 - Do you encourage participatory decision making?

The principals interviewed are in favor of participatory decision making. One principal stated that his use of this approach depends upon the situation and another principal stated that he does not encourage participatory decision making. All of the others (ten of twelve principals) gave enthusiastic support to this approach. Two of these principals answered the question by saying "Absolutely." And one of these two added, "Consistently, even if I disagree." Three other principals qualified their enthusiasm for participatory decision making by saying, "Input, yes. I make the final decision," "Yes, if it comes out successfully" and "Yes, if I haven't already made up my mind." The latter principal said that he does not encourage participatory decision making for "political or manipulative ends. I make the final decision because I am responsible."

Still another principal answered the question in an interesting fashion. In answer to Question 13 he said, "Yes,

twice a week." He stated that he encourages participatory decision making "twice every Monday." No amount of analysis could clarify this point.

From the responses gathered there is evidence that principals endorse participatory decision making without sufficient indication that they understand it. The research which was mentioned in response to Question 12 does not seem to help much in reference to the significance of participatory decision making.

Step Four - Summary Comments

The responses to the questions in this section do not reveal clearly how the principals select a plan to follow in decision making. Their comments on brainstorming, on research, and on participatory decision making are varied and are, in some instances, contradictory.

One principal praised brainstorming and then said that it is "gimmicky." Several principals referred to the use of brainstorming in unique situations and used typical situations as examples. One principal expanded on his background in group dynamics and then described how he manipulates the group in brainstorming sessions. Two administrators noted the importance of brainstorming but did not use it as an approach. The creative aspect of this approach was not highlighted by any of the twelve principals interviewed.

Comments on research included a broad range of responses. Except for three principals who stressed the importance of research, including the one who relies upon the Gallup Poll, the principals do not rely heavily on research for their decision making. The underlying reason for this situation was expressed by the principals who said that research cannot help in solving day-to-day problems in a school.

Responses to the question dealing with participatory decision making revealed some lack of awareness of some principals of what this approach means. The principals gave positive responses to the question dealing with this approach but their comments in many cases belied their acceptance of participatory decision making.

Step Five - Evaluation

Question 14 - How do you evaluate decision made?

The responses to Question 14 can be described as pragmatic. The most frequently mentioned means of evaluating decisions were in terms of whether the decisions work and in terms of how the people affected by the decisions feel about the decisions. Three of the twelve principals replied that they evaluate their decisions in terms of district and building goals. This latter reference is more concrete than the responses of five principals who replied "If it works," and five principals who were concerned with the acceptance of the decisions by those involved.

The focus on pragmatic evaluation was stated by one principal who said, "I am still here." Another principal said, "If the problem is eliminated, the decision is a good one." Another principal replied, "The reaction of the system is a major basis for evaluating my decisions." This same principal also mentioned that he seeks evaluation from colleagues and peers. Since there is only one principal in the building, it is difficult to determine who the peers are. If this principal seeks evaluation from fellow principals the question of peers is clarified but the question of data base is not. The peers (fellow principals) cannot know the facts nor the situation as well as the principal of the building where the decision is made.

Three principals mentioned follow-up studies and review as means of evaluating their decisions. The other principals did not specify this crucial aspect of evaluation.

The responses clearly demonstrate that there is no formal evaluation used by the principals interviewed. References to "informal input," feelings of the staff, and focusing on ends rather than means illustrate the absence of formal approaches. The comments made concerning the evaluation of decisions in terms of goals and through review suggest a possibility of some systematic approach to Question 14, but the data did not provide proof of this possibility.

Question 15 - Is there a recourse or grievance opportunity for those affected by the decision?

The responses to Question 15 are similar in almost every respect. All but one principal stated that there is a union procedure which covers the handling of grievances. One principal among the eleven who cited union procedures added that "I have never had a grievance because everyone here is involved in the decision made. I encourage the staff to complain to me and we settle problems quickly."

Ten of the twelve principals spoke about their open door policy. In general, their comments were essentially the same. These principals, all of whom have formal grievance procedures in their schools, encourage teachers to come to their office and talk freely about problems.

Two principals whose staffs can follow formal grievance procedures stated their opposition to an open door policy. One of these principals said, "There are too many teachers for that." Another principal said, "I don't want to create the impression that people have an invitation to come into my office and complain."

The one principal who said that there is no formal grievance procedure afforded to teachers affected by his decisions specified that the teachers always have recourse by being uncooperative. He said that grievances can be filed if a regulation is violated, but he did not admit that grievances could be filed for any other reasons. If a teacher

did not accept a decision made by this principal, the teacher
could demonstrate uncooperative behavior rather than file a
grievance. Another principal used this same type of reason-
ing when he said, "A recourse is that teachers won't cooper-
ate." This latter principal stated that there is a grievance
procedure established in his school. Lack of cooperation may
not be viewed as a formal grievance but it can have serious
consequences. Neither of these two principals spoke of this
concern.

Question 16 - Do you consider yourself a good decision maker?

All administrators in the sample answered "yes" to the
above question. The confidence expressed by these principals
can be summed up in the comment of one principal who said,
"You can't be a successful high school principal if you have
made bad decisions."

Various reasons for this degree of confidence were
given. One principal said, "I am a student of communica-
tions." Another one said, "The way I go about it, I gather
lots of data and involve people." Another one stated that he
gets "positive vibrations." This same principal said, "I am
committed to the profession." These reasons may not be solid
enough to prove the contention that the principals are good
decision makers, but they are typical of the reasons given
during the interviews.

The responses do not reveal much evidence for the self-ratings of being a good decision maker. As noted in the responses to Question 14, there is no formal evaluation system used by the principals to measure their decisions. Their use of informal means is probably sufficient to lead them to conclude that they are good decision makers.

Step Five - Summary Comments

The responses relating to Step Five are clear but lack depth. Decisions are evaluated by looking at results and at staff acceptance. Research is not used, follow-up is seldom provided, and a systematic approach to evaluation is not evident. In spite of these findings, the principals consider themselves to be good decision makers. They pride themselves on a lack of mistakes, on involving staff in decisions, and on the "smooth operation of the building."

A grievance procedure is accepted as a matter of course among the principals although one principal had objections to this approach. In addition to this provision, the concept of an open door policy is acceptable to a majority of the principals as stated directly or indirectly. Negative comments about grievances did not surface. The reasons given by the principals for their confidence and apparent satisfaction relative to evaluating decisions and their decision making ability are more subjective than objective; however, they

are consistent. In spite of this consistency, not much information about their methods of evaluation is provided by the interview data.

Question 17 - Can you explain your rationale for decision making?

Several references have been made in the analysis of the data to a lack of a systematic approach to decision making by those interviewed. Few indications were cited in the responses which suggested an approach beyond trial and error or experience. In response to Question 17, however, ten of the twelve principals (designated as P1 through P12) listed a step-by-step process for decision making. Their comments follow:

P1   1. Find out information.
      2. Go to level where problem occurred.
      3. Come up with recommendations.
      4. How will it affect situation? Safety of students?
      5. Is information authentic. Where did data come from? Verify.
      6. How much time is needed?
      7. What are the alternatives?

P2   1. Get information.
      2. Clear definition of problem.
      3. Consider ramifications of problem.
      4. Select best alternative.
      5. Make decision in best interest of learner.

P3   1. Bring people who have most knowledge about problem together.
2. Review problem.
3. Analyze affect of what we're doing.
4. Determine whether decision would improve what we have.
5. Extend to greater base (involve more people).
6. Look at literature (models, case studies).
7. Send out teams of people.
8. Present written reports defending their model.
9. Apply cost, personnel, facilities, etc.
10. Implement providing feedback for superintendent.
11. Evaluate.

P4   1. It's an intuitive process.

P5   1. There is not process, just experience.

P6   1. Is there a need for a change?
2. Is need and proposed solution beneficial?
3. Is it practical?
4. Is it fair, honest, needed?

P7   1. Legal, policy.
2. What's best for all concerned?
3. Consistency - What have we done?
4. Fair
5. To what end? What will be served by decision?

P8   1. Who owns the problem?
2. Make person know that it is his problem.
3. Look at consequences.
4. Gather information for people.
5. Consider it. Look at pros and cons.
6. Impact on whom? Consequences.
7. Make decision.

P9   1. Get all the facts.
2. Study them.
3. Consider alternatives.
4. Decide.
5. Evaluate.

P10   1. Get input from staff.
2. See affect of decision on people - consequences.
3. Make decision.

P11 1. Identify problem. (Most important part of decision-making process.)
     2. Gather information.
     3. Involve people associated with problem.
     4. May or may not have choice. Look at alternatives. (Ask people about alternatives to determine impact.)
     5. Articulate solution.
     6. Evaluate. Does it accomplish what you intended it to?

P12 1. Identify problem
     2. Gather data.
     3. Make hypothesis.
     4. Test.
     5. Evaluate.

Although the specific listing of steps is different in each instance, there are some common elements in most of the lists. The lists include gathering of information, defining problems, seeking alternatives, selecting alternatives, implementing an approach, and evaluating what has been done.

Two of the principals included the question of fairness as part of the steps in the decision-making process. Moreover, consideration of time, cost, and affective considerations can be noted in the various rationales for decision making listed.

Thus, it would appear that the principals who can identify readily and concretely a rationale for decision making could comment on the application of this process to other questions during the interview. Many indirect and several direct references to the processes identified were made, but, as noted, the subjective, unsystematic approaches and evaluations were typical of the responses throughout the interviews.

This inconsistency is indicated by the responses to
Question 17 by two principals who did not provide a clear
rationale for decision making. One of these principals
stated, "It's an intuitive process," and the other stated,
"There's no process, just experience." It is ironic that
these latter quotes sum up the major findings of the inter-
view, in spite of the fact that ten of the twelve principals
did provide a rationale for decision making. There was
little evidence during the interviews that these rationales
were applied in a systematic way.

Question 18 - Are there any additional comments you would
like to make with regard to decision making?

An opportunity to provide additional comments was given
in Question 18. In general, the comments did not add to the
store of data in terms of a rational process for decision
making. The comments added some color to the data collected
as well as several insights.

One principal said, "Participants should be fluid enough
to promote creativity." Another principal said, "You have to
be confident, sure, not afraid." A third principal said,
"The process for decision making should operate on a team
level." Another principal offered the comment, "One has to
allow for time." Still another principal said, "It's hard to
get others to own a problem. People try to divest themselves
of problem ownership."

Several comments which were intended to provide insights were made: "A skill most helpful in decision making is knowing when not to make a decision;" "You can't analyze decision making. It is body language."

These types of comments indicate a variety of views. The application of these views to a careful analysis of a decision-making process is lacking in relevance. Therefore, to elaborate further would not enhance the interpretations of the data presented throughout this study.

Comparison of Responses of Middle Managers and High School Principals

The structure for the comparison and analysis of responses for the two groups is in terms of each major Step in the decision-making process used throughout this dissertation. To repeat the responses for each individual question would be redundant. The data source for comparing the two groups is primarily the summary section at the end of each Step. These summaries contain the main insights derived from the analysis of each question relating to the respective Steps.

Step One - Diagnosis

The analysis of this Step reveals very little differences between the responses of the middle managers as a group and high school principals as a group. Except for the emphasis on profit-loss concerns in the middle management group, an emphasis absent in the responses of the high school principals, the similarities between the groups are readily apparent. The major means for diagnosing a problem in both groups is observation. The results of their observations are subjected to their own professional judgments as the major criterion for acceptance or rejection. Both groups rely heavily on the input of their subordinates in the diagnosis of problems and both groups stated that personnel matters are the major kinds of decisions with which they are concerned.

A major difference between the two groups is the contact with superiors in the diagnosis phase of the decision-making mode. Few principals (three of the twelve) stated that they became aware of problems through their superiors, whereas seven of the twelve middle managers identified superiors as a source of awareness about problems. Both groups made comments which give evidence that they recognize and support a hierarchy, but the middle managers apparently use the input of superiors more than the principals admit.

A possible explanation for the lack of reliance by the principals on their superiors in the diagnosis of problems is that the principals occupy the top management position in the school. The managers are in charge of their departments and enjoy sufficient autonomy to run these departments, but the principal is in charge of many departments and has a responsibility level which is more varied than the middle managers in business. Moreover, the principals have more autonomy in their building than the middle managers have in their departments for several other reasons. One reason is the proximity of the superiors in business. The office of these superiors is located, in every instance in this study, in the same building as the offices of the middle managers. Another reason is that the high school curriculum is usually more segmented so each department does not depend upon another department for maximum efficiency. In business the interrelatedness of the departments can be a factor in the necessity for middle managers to confer with their peers (an opportunity not readily available to the one principal in a high school) and to seek approval and direction from superiors.

Although the principals indicated more involvement with a democratic approach to decision making than did the middle managers, five of the twelve middle managers interviewed stressed the importance of the human element in the diagnosis of problems.

Step Two - Discovering Alternative Solutions

Although references to alternative solutions were made by members of both groups these references were vague. The managers, as a group, did not express views which varied from the company line, and they said little about alternatives. The principals, whose mandate to educate is less clear than the profit-loss concern of the middle managers, also said very little about alternatives. The strategies explained by several members in each group are vague and do not provide any unusual approaches. The middle managers, however, did refer to what they considered to be specific strategies, whereas the principals, other than referring to being direct, and communicating effectively, did not specify any strategies.

Neither group uses research findings consistently nor in relationship to their major area of focus, which is personnel matters.

Both groups allowed subjective considerations to enter into their decision making, but, again, the groups did not give much evidence of the consideration of or use of alternatives in a significant way.

Step Three - Analyzing and Comparing Alternatives

Since few alternatives were discernible in reference to
Step Two, there were few comments which reflected the use of
alternatives with reference to Step Three. Both groups spec-
ified the same kinds of factors which must be considered in
weighting an approach to problem solving: time factors,
legal factors, and financial factors. In addition to the
consequences which come specifically from these considera-
tions, both groups spoke of the importance of consequences in
general as a major concern. Indirectly, this reference indi-
cates that in spite of the lack of specific comments dealing
with alternatives, the middle managers and the principals are
aware of several choices available to them for decision mak-
ing.

Step Four - Selecting the Plan to Follow

Both groups talked around the topic of how a plan is
selected for purposes of decision making. Many of the com-
ments from each group are similar in reference to brain-
storming, research, and participatory decision making.
Responses from both groups indicate an acceptance of brain-
storming in certain situations but not much value was placed
on its use by respondents in both groups. Similarly, both
groups accept research as an aid to selecting a plan for
decision making, but the use of the research is limited in
scope and in application.

The comments from both groups on participatory decision making are contradictory. The comments made by the respondents, many of which are quoted, give evidence to the fact that the acceptance of participatory decision making and the understanding of this approach by those interviewed are vastly different. Many articles and other references to participatory decision making can be found in the literature of management and in the literature of education. The ability to identify this approach posed no problem for those interviewed. Why this ease of identification and the availability of much literature on the topic have not resulted in more understanding of the approach is an unanswered question.

Step Five - Evaluation

Responses from both groups show clearly that there is no consistent or formal means of evaluation of decisions made. The subjective element is apparent in the responses from both groups. The middle managers refer to company goals and the principals refer to results, but in neither group did the respondents indicate how the impact of specific decisions made on their level have an impact upon these ends.

The respondents use subjective means of evaluating their decisions and they use subjective criteria to evaluate themselves as good decision makers.

Both groups accept grievance procedures as a fact of life. Few comments were made about negative aspects of grievance procedures. There are more informal grievance procedures noted by the middle managers than by the principals. The influence of grievance procedures on the evaluation of decisions made by those interviewed did not seem to be a matter of concern.

CHAPTER IV

Summary, Recommendations, and Implications

Introduction

The purpose of this study is to analyze the decision

making process of middle management executives in terms of a

model derived from the professional literature. The execu-

tives interviewed serve as high school principals and middle

managers in service industries. The sample included twelve

high school principals and twelve middle managers located in

North, Northwest, and West suburban Cook County, Illinois.

These middle management executives were interviewed to

obtain responses from a structured set of questions which are

based upon a five-step model for decision making.

1. Diagnosis

2. Discovering Alternative Solutions

3. Analyzing and Comparing Alternatives

4. Selecting the Plan to Follow

5. Evaluation

This model, derived from an analysis of the literature

in business and in education on the topic of decision making,

provided the structure for the interviews and for the analy-

sis. The analysis is presented in narrative fashion because

the data do not lend themselves to tabular or to statistical
treatment.

This Chapter presents conclusions, recommendations, and
implications for further study based upon the results of this
dissertation.

Conclusions

Many interesting facts and points of view became ap-
parent during this study. References to these data have been
made throughout Chapter III. The following list of conclu-
sions is an attempt to pull together some of these references
into broader and more general statements than those presented
in Chapter III. These conclusions are stated in reference to
each Step of the decision making model for ease of identifi-
cation and to highlight their importance.

Major Conclusions for Both Groups

Step One (Diagnosis) - In diagnosing a problem subjec-
tive judgment is the primary and most frequently mentioned
criterion.

Observation was cited by the respondents as the major
means for diagnosing a problem. Subordinates are the chief
source of information for the principals and the middle man-
agers. The interpretation of what the subordinates relate
are judged subjectively.

Step Two (Discovering Alternative Solutions) - The data revealed little evidence that alternative solutions are sought.

Alternatives were seldom mentioned by the respondents. The few references made did not give evidence that problems are considered in a variety of ways or that a variety of approaches are used.

Step Three (Analyzing and Comparing Alternatives) - Since few alternative solutions are discovered by the respondents their analysis is generally limited to solution which relate to financial, time, and legal consequences.

Comments from the respondents indicated that they are aware of some alternatives but those interviewed did not seem to consider options beyond those stated in the conclusion.

Step Four (Select a Plan to Follow) - No systematic approach to the selection of a plan to follow is evident.

The plans followed by the respondents indicated a lack of consistency. The subjective judgment cited in reference to the conclusion for Step One was the major criterion in selecting a plan to follow.

Step Five (Evaluation) - In evaluating decisions made the reliance is on subjective criteria rather than on a systematic approach to evaluation.

All but two respondents cited a rationale for decision making during the interview but they did not apply this rationale to the specific questions asked of them. Although frequent reference was made to the evaluation of decisions in reference to goal attainment the respondents used subjective

measures to evaluate their decisions, their decision-making process, and themselves.

The responses given by both groups to Question 17 clearly demonstrate that almost every person interviewed was able to recite a step-by-step rationale for decision making. The above conclusions clearly demonstrate that there is a gap between what these decision makers profess and what they do.

In addition to the major conclusions for each Step several other conclusions can be stated:

1. There are only minor differences in the application of the model reported by the middle managers and principals.

2. Recognition and application of affective concerns are common in the decision making of the middle managers and principals.

3. Middle managers and principals are comfortable in the way that they make decisions.

4. No evidence of concern about pitfalls in decision making emerged from either group.

5. The authority of the position is well recognized by respondents of both groups.

6. Recognition of hierarchy is clear and is followed even with the subjective elements noted before.

7. Indications of potential communication problems exist in business and in school.

8. Use of the computer is widespread but data received are basic.

9. Research when used is limited in scope. Research on staff development, motivation, and other personnel matters is not used.

10. Brainstorming is used frequently and is open ended but the results do not play an important part in the final decision.

11. Participatory decision making is misunderstood.

Recommendations

The results of this study provide the basis for recommendations for the improvement of decision making. The respondents in this study represent a small sample of decision makers but to the degree that their comments are indicators of their comments are indicators of their colleagues the recommendations can be valuable. The list of recommendations is not in terms of a priority ranking.

1. Apply the knowledge of a decision making process to decision making. The ability to specify the steps of a decision-making process is of little value if application of these steps is not made.

2. Keep all key persons in a hierarchy well informed. If the decision maker and the superior do not keep each other well informed, pitfalls in communication may develop no matter how effective the decision making process may be.

3. <u>Expand the use of research</u>. There are many research studies which can aid a decision maker in discovering and in selecting alternatives as solutions to problems. The scope of the research should be broad enough to include pertinent information with regard to selecting alternatives as solutions to problems. The scope of the research should be broad enough to include pertinent information on topics related to the problems identified.

4. <u>Expand the use of computers</u>. Information provided by computers can be valuable in terms of the content as well as the objective format of the information. Computers, to be effective, should not be restricted to the gathering of basic data such as attendance records. Computers can be programmed to aid in problem solving.

5. <u>Keep current in the literature of decision making</u>. Confusion about the meaning and application of various approaches to decision making can be eliminated through professional reading. In addition to research, many popular articles explain approaches such as brainstorming and participatory decision making. If one is well informed about such approaches, the risks and the potential problematic consequences of using them are minimized.

Implications for Further Study

Based on the results of this dissertation, several suggestions can be made which warrant further study:

1. Analyze the decision making process used by superintendents of school districts and by top echelon executives in business.

2. Analyze the perceptions of employees concerning the decision making process of their superiors.

3. Analyze the use of computers in aiding the decision-making process.

4. Analyze the effects of the evaluation components of decision making in terms of subjective criteria and in terms of objective criteria.

5. Analyze the consequences of decision making in areas other than legal, financial, and time concerns.

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APPENDIX

Interview Guide

1. How do you become aware that a problem exists?

2. What are the kinds of decisions with which you are concerned?

3. With whom do you discuss perceived problems?

4. How do you narrow down the scope of a problem once you identify it?

5. What are some typical strategies utilized when you hear about a problem?

6. What are your data gathering sources? (In-house and out of house)?

7. What are some factors considered in developing a solution?

    a. legal   e. trade-offs
    b. financial   f. effect on job, people
    c. time   g. consequences
    d. political concerns f. priorities

8. What authority restrictions do you have?

9. How do policies and/or rules hinder or aid your decision making?

10. What is your support base?

11. Can you give me any instances where you used creative brainstorming in decision making?

12. How does research help you in decision making?

13. Do you encourage participatory decision making?

14. How do you evaluate decisions made?

        a. relationship to goal
        b. to "crisis"
        c. to routine
        d. to morale factors

15. Is there a recourse or grievance opportunity for those affected by the decision?

16. Do you consider yourself a good decision maker?

17. Can you explain your rationale for decision making?

18. Are there any additional comments you would like to make with regard to decision making? (Your role, process)

NOTE: In utilizing the questions above, the opportunity to pursue tangents as well as to abridge will become evident during the interview. The purpose of the above questions is to provide a structure which focuses on the main elements of the decision-making model.

The survey instrument used during the interview was scrutinized by a panel of three experts who are not part of the sample. Their suggestions for modification were incorporated into the final set of questions to be used during the interview.

APPROVAL SHEET

The dissertation submitted by Margaret B. Lundquist has been
read and approved by the following committee:

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The final copies have been examined by the director of the
dissertation and the signature which appears below verifies
the fact that any necessary changes have been incorporated
and that the dissertation is now given final approval by the
Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment
of the requirements for the degree of Doctor of Education.

_____November 11, 1981_____   _____M P Heller_____
Date   Director's Signature