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Linkage of decision-making, buffering, and styles of thinking in exemplary superintendents

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IN EXEMPLARY SUPERINTENDENTS

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Linkage of decision-making, buffering, and styles

of thinking in exemplary superintendents

by

David A. Haggard

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CHAPTER I. INTRODUCTION

The art of decision-making is the central function of any adminis-
trative organization. Simon stressed the importance of the decision-
making function in the following manner:

> The task of "deciding" pervades the entire administrative
> organization quite as much as does the task of "doing"--
> indeed, it is integrally tied up with the latter. A
> general theory of administration must include principles
> of organization that will insure correct decision-making,
> just as it must include principles that will insure
> effective action (94, p. 1).

An analysis of the various decision-making models has revealed a
number of common components. A majority of the models are cyclical in
nature, require that a situation be recognized and defined as a problem,
and require a determination to be made as to how best to respond to the
situation. If it is determined that action will be taken, the alterna-
tives must be considered; a course of action is developed; the course
of action is implemented; the results are evaluated; if feedback indi-
cates that the problem is solved, the process has completed its cycle
and is not activated again until another situation demands action. If
feedback indicates that the problem has not been solved, then the
process is repeated.

The decision-making process may remain inactive or may be altered
by three different conditions. These conditions are identified as
screens or buffers. The most fundamental buffer is made up of the
factors creating what Lipham referred to as "perceptual screens" (70).
"Many factors in addition to values constitute the perceptual screen of

the decision-maker, including such personalistic variables as intelli-
gence, creativity, need-dispositions, abilities, and even biological
states of the organism" (70, p. 159). The nature of the variables
identified as having an effect on the perceptual screen would indicate
that this level of buffer operates within the individual's subconscious
and must be penetrated before a situation is defined as problematic.
The fundamental nature and the personalistic variables of the percep-
tual screen make it the buffer most frequently activated.

The second level consists of buffers built into the organization
through policy or established procedures. Thompson defined this level
of buffer in terms of manufacturing technology: "Under norms of ration-
ality, organizations seek to buffer environmental influences by surround-
ing their technical cores with input and output components" (104, p. 20).
He illustrated this with an analogy to the industrial situation where
goods, supplies, and finished products are stockpiled to meet supply
and demand fluctuations. In the context of decision-making and problem-
solving, this simulates developing a policy to handle a certain recur-
ring problem. Once a situation was defined as being problematic, this
policy would be activated and the decision-making process would run its
entire course.

Level three buffers are the more refined tools and would require
planning and the establishment of priorities for them to be effective
and valuable. Katz and Kahn have suggested that not all information is
processed. They have indicated that information that does not negative-
ly affect the organization is systematically filtered out according to

some scheme of priorities (59, p. 231).

Brown referred to this concept of a planned and prioritized means of selectively processing information to maintain an organization's comfort range as "tension management" and the techniques used as "buffers." He stated that "Buffering tension is not an accidental or haphazard activity but a conscious effort on the part of both administrators and teachers" (19, p. 156).

Statement of the Problem

Important as decision-making may be, the focus has been centered on the process and the components of the process, not on what character-istics constitute good decision-making or where in the process most breakdowns occur. Buffering has been identified as an initial step in the decision-making process that can reduce organizational tensions without requiring that the decision-making process run its full cycle in each situation. ·However, research does not indicate·whether buffer-ing is an effective tool, if it is used by successful superintendents, or if it is used only for problems of a particular nature.

This investigation has focused on five general questions:

(1) Are superintendents identified as exemplary more proficient in the process of rational decision-making than a randomly selected group of superintendents?

(2) Does the exemplary group of superintendents use buffers more fre-quently than the randomly selected group?

(3) Do the quantity and recency of formal training in rational

decision-making affect the subjects' proficiency at making deci-

sions?

(4) Is there a specific step in the rational decision-making process

where the superintendents' proficiency in decision-making breaks

down?

(5) Is there linkage between the exemplary superintendents' styles of

thinking and their proficiency in decision-making?

Need for the Study

Moeller's doctoral dissertation yielded information that indicated

that administrators have a low entering knowledge in the area of

decision-making and that experience is a major factor in improving

decision-making skills (77, p. 89). Since "Decision-making is at the

very heart of the administrative process" (37, p. 275), the process

needs to be more closely examined to provide practitioners with better

entry level skills.

The variables examined in this study hold value for the potential

administrator, the practicing administrator, and the institutions that

provide the initial and continuing education for administrators.

Assessing how administrators attack a problem and an examination of the

steps of the decision-making process that they actually employ was

thought to be of help in identifying where the process breaks down.

Looking at who uses buffering responses, in what situations they are

used, and what levels of buffer are used should expand our knowledge of

the buffering concept. It was hoped that examining how selected

exemplary superintendents make decisions compared with how the randomly selected superintendents make decisions would assist administrators in assessing their own strengths and weaknesses as decision-makers. Assessing the thinking styles of the exemplary superintendents could provide an additional key to identifying potential administrators and promoting those with exemplary potential.

Examining the linkage of decision-making, the use of buffers, and how exemplary superintendents do both should provide a profile valuable to institutions that train and place administrators. It could allow them to assess degree candidates and develop prescriptive programs for the individual that will better groom him/her to be a successful decision-maker. It should also identify areas that would be valuable to administrators for in-service and continuing education.

Definition of Terms

Every effort has been made to provide thorough operational definitions and explanations of terms and processes where the first reference occurs. However, the following terms and concepts are of significant value to this study and warrant special attention at this point:

BUFFERING--(1) Employment of a process or procedure, established by policy or practice, to handle common and recurring situations. (2) A planned and prioritized means of selectively processing information to delay action or shift responsibility for the situation.

DIRECT ANSWER--The end product of the decision-making process. No attempts are made to shift responsibility, no delay or avoidance

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tactics are employed, and the chief goal is to provide a final solution.

EXEMPLARY SUPERINTENDENTS--A pool of superintendents identified by their colleagues throughout the state of Iowa. They were identified by a reputational survey conducted within each Area Education Agency. Two superintendents were identified in each area unit.

PERCEPTUAL SCREEN--A subconscious level of buffer that prevents an individual from defining a situation as problematic. Lipham and Hoeh identified the personalistic variables that affect the perceptual screen as intelligence, creativity, need-dispositions, abilities, and the biological state of the organism (70, p. 159).

RATIONAL DECISION-MAKING PROCESS--The commonly recognized steps are: (1) Define the problem; (2) consider the alternatives; (3) consider the unintended consequences; (4) develop a course of action; (5) implement the chosen course of action; and (6) evaluate the outcome.

Sources of Data

The data in this study were gathered through the use of two instruments which were administered to a pool of exemplary superintendents and a pool of randomly selected superintendents.

The primary instrument was researcher-developed during the course of this study. It consisted of a section for the respondent to provide demographic and personal information and ten situations which required the rank ordering of four possible solutions. Two of the situations

required the respondent to identify and rank order strategies that may have been employed in reaching a decision. The strategies are actually the steps of the rational decision-making process couched to fit the situation. The validity of this instrument was established by a five member expert panel, and the internal reliability was established through the application of accepted statistical methods and is fully explained in Chapter III.

The Gregorc Style Delineator (Appendix A) was used to identify the thinking styles of the participants.

> It is based on a Mediation Ability Theory which states that the human mind has channels through which it receives and expresses information most efficiently and effectively. The power, capacity, and dexterity to utilize these channels are collectively termed mediation abilities. The outward appearance of an individual's mediation abilities is what is popularly termed "style" (38, p. 5).

Delimitations

This study was limited in potential participants to the administrators holding superintendencies in public schools in the state of Iowa during the 1982-83 school year. From that population, thirty (30) were identified as exemplary and an equal number were randomly drawn from the remaining group.

Summary

This study examined the decision-making process, looking for specific areas where the process breaks down. Exemplary superintendents were identified and profiled and their responses to the questionnaire were compared with the responses of a randomly selected group of

superintendents. Each participant in the study completed the Gregorc Style Delineator which categorized their primary thinking styles. Thinking style was then used as another variable for examining who the exemplary superintendents were and how they made decisions. The concept of buffering was examined as an additional variable to try to establish the effectiveness of buffering as a component in the decision-making process.

This study yielded information that fills voids in the body of information that addresses decision-making by educators. Practicing and potential administrators can examine and compare how superintendents identified as being exemplary make decisions and use the buffering concept, training institutions can assess where more emphasis needs to be placed in teaching the decision-making process, and the profile of the exemplary superintendents provides an additional screening tool for institutions looking for administrators.

CHAPTER II. REVIEW OF LITERATURE

Researchers have explored the areas of decision-making, buffering/ screening, and thinking/learning styles. The area of decision-making has received the greatest amount of attention, and there is general agreement on the fundamental components of the process. Review of the literature indicates that buffering occurs on three different levels and for a variety of reasons. Some of the precepts about decision-making and buffering (19, 59) maintain that they are planned and ordered concepts, used tactically as managerial strategies. Other research indicates that educational administrators deal with a volume of problematic situations so great that it would be impossible to employ these concepts as ordered strategies (25).

Thinking/learning styles research appeared as early as 1892 (60, p. 4) but until the last decade has not received a great deal of attention. The research in this area is important to help establish any linkage between decision-making, buffering, and the way exemplary superintendents perform in those areas.

This review of literature focused on the following major areas: (1) decision-making, (2) buffering/screening, and (3) thinking/learning styles.

Decision-Making

To understand the rational decision-making process, it is necessary to examine some of the definitions provided in the literature. Rationality has been defined by Simon in the following way: "Roughly speaking,

rationality is concerned with the selection of preferred behavior alternatives in terms of some system of values whereby the consequences of behavior can be evaluated" (94, p. 75). Lee supported this reasoning while defining the best decision. "In decision theory, the rational man is he who, when confronted with a decision situation, makes the choice (decision) that is best for him. This best decision is called a rational or optimal decision" (66, p. 7).

In looking at how problems are solved, Davies and Herrold (28, p. 21) identified two approaches: "The Common Sense (Intuitive) Approach and an approach based upon some system or theory." Although he did not name or formally identify the counterpart to the "Intuitive Approach," he did indicate his preference for the systematic approach. "While the intuitive flash of insight works now and then, it is risky business to put too high a regard on our common sense when it comes to solving important administrative problems" (28, p. 21). The universal existence of a process or procedure is supported by Havelock. "Every person, every group, and every social organization necessarily has some sort of problem-solving process in order to survive in a changing world. This does not mean that everyone is an expert problem-solver, and it does not mean that everyone finds innovative solutions when he has a problem; but everyone does develop some sort of procedure for coping with change" (46, p. 6).

Lipham and Hoeh provided a definition of the decision-making process that identified the four components that seem to be common to most decision-making models. "Decision making is a process wherein an awareness

of a problematic state of a system, influenced by information and values, is reduced to competing alternatives among which a choice is made based on perceived outcome states of the system" (70, p. 155). The four components extracted from that definition are: an awareness that a problem exists, the gathering of information, generating various alternatives, and making a choice from those alternatives. These steps will be discussed in greater detail in a later section of this chapter.

Decision-making theory

Decision theory is a product of several different disciplines. It was first developed by mathematicians and economists (66, p. 15). "Statistical decision theory, or Bayesian decision theory, is a procedure for utilizing both numerical data and judgmental evaluations for making decisions under uncertainty that are optimal according to certain economic and statistical criteria" (18, p. 35). Bayesian decision theory is exacting but has some major drawbacks that prevent it from having greater acceptance and application by behaviorists. Braverman pointed out the following drawbacks:

> The greatest difficulty encountered in applying this technique to managerial decision situations is that it requires an understanding of fairly complex mathematical and statistical models in all but the simplest types of decision situations. In addition, although the theory is beautifully simple in concept, its application to typically complex managerial decision situations can be extremely difficult, requiring the services of trained statisticians and computer programmers and the use of a large-scale digital computer. As a result, the technique is frequently uneconomical in light of the decisions to be made (18, p. 35).

Behavioral decision theory focuses more on a hypothesis, its formulation, and the testing of the hypothesis. "Behavioral decision theory, like other theories of behavior, aspires to give an accounting and explanation of human behavior--in particular of human decisions, but the meaning of "decision" is so vague that clear-cut boundaries for the applicability of decision theory cannot be stated" (66, p. 16). Within behavioral decision-making theory, a distinction is made between normative and descriptive decision theory (66, p. 16). Normative decision theory is concerned with the choice a rational man should make, not what choice is actually made; and descriptive decision theory concerns the choices actually made, not what choices should be made. According to the definition of rational decision-making offered earlier by Simon, if accurate decisions are being made, normative and descriptive theory should frequently merge.

Regardless of the style or theory used in the decision-making process, there are some components that seem to be universal. Manning has cited eight research studies on decision-making and has summarized them in the following manner:

> All these models have certain characteristics in common. In the initial stages of the adoption-diffusion process there is an awareness of a need for verbalization of a problem. Secondly, there must be an active interest in change, and information must be sought. Some evaluation of the problem must then be made and possible solutions considered. A product must be designed which suits the needs of the institution as they have been established. There must be some kind of trial or testing period which may include demonstration and training. Finally, there must be a decision to adopt which is followed by the institutionalization and diffusion of the innovation throughout the entire system (75, pp. 12-13).

From that summarization and the discussion of the various strategies, it is evident that Lipham's definition of the decision-making process is representative.

Decision-making within educational organizations presents some unique problems. Most of the problems in education are subjective in nature and cannot be given an appropriate quantitative representation. This removes the possibility of applying any of the mathematical or statistical decision-making formulas. Decision-making in educational organizations is further complicated by the fact that those in charge of or responsible for schools rarely state or define their intended outcomes. The subjective nature of the problems encountered and the failure to define the intended outcomes coupled with the volume of problematic situations that educators encounter causes one to question how frequently and in what situations the rational decision-making process is actually employed.

Decision-making processes and models

Simon identified two general types of decisions, programmed and non-programmed (94, pp. 5-6). Some situations occur frequently and procedures are established for the routine handling of these situations. That is programmed decision-making. Other situations are unique or of such importance that no procedure for their routine handling has been developed. These are nonprogrammed decisions and rely heavily on a sound process that can guide the decision-maker to the optimal solution.

Davies and Herrold have previously been cited as having defined two

ways of reaching a decision: the "common sense (intuitive) approach" or

a "systematic approach based on theory." Unless a systematic process

or procedure has been taught, the decision-maker will rely only upon

the intuitive approach, and although an intuitive flash may work from

time to time, Davies has pointed out five basic shortcomings of the

intuitive approach to problem-solving:

1. The common-sense method seldom deals with specific con-
   crete problems.
2. Common-sense approaches are seldom based upon basic
   hypotheses.
3. Common-sense tests of evidence or methods are usually
   vague.
4. Common sense usually deplores objective evidence.
5. The common-sense method is rarely rigorous (28, p. 22).

These five reasons coupled with the importance and frequency with which

nonprogrammed decisions are called for establish the necessity of teach-

ing sound rational decision-making procedures to all potential decision-

makers.

There are many rational, comprehensive decision-making models from

which to choose. They range from the very basic to complex, sophisti-

cated models. The simplest of the models is the four-step approach

identified by Havelock (46) and Slusher and Cutting (97). In the four-

step model, the process is broken into: (1) deciding something must be

done; (2) defining what the problem is; (3) searching for potential solu-

tions; and (4) applying one of the potential solutions to see if it

remedies the problem.

Koberg and Bagnall (65, p. 17) and Gibson et al. (36, p. 435) have

identified seven-step processes that only slightly deviate from each oth-

er. Essentially, those processes include: (1) a statement of goals and

objectives; (2) the analysis of the situation and definition of the problem; (3) generating alternative solutions; (4) evaluating the alternatives; (5) selecting the best alternative; (6) implementing the chosen alternative; and (7) evaluating the effectiveness of the implemented alternative.

Kepner and Tregoe (61) have proposed one of the most sophisticated models. It differs from the seven-step process previously identified in the area of problem analysis and post-decision activity. The Kepner-Tregoe model specifies what deviations have occurred that created the problem situation and tests to see if the identified deviations do cause the problem situation to exist. In the area of post-decision activity, they identify potential problems caused by the implementation of the decision and suggest the formulation of contingency plans in case they are needed.

The processes and models reviewed establish the validity of the six-step rational decision-making process as defined for this research project. The graphic representation of the decision-making process, as illustrated by Lipham and Hoeh in Figure 1 (70, p. 157), helps further visualize the process.

The units on the model described as "Identifying the problematic state of the system" and "Classify and define the problem" represent step one of the rational decision-making process: define the problem. The unit identified as "Formulate and weigh alternatives" equates to step two: consider the alternatives. Within the "Formulate and weigh alternatives" unit are subunits identified as "Estimated outcomes."
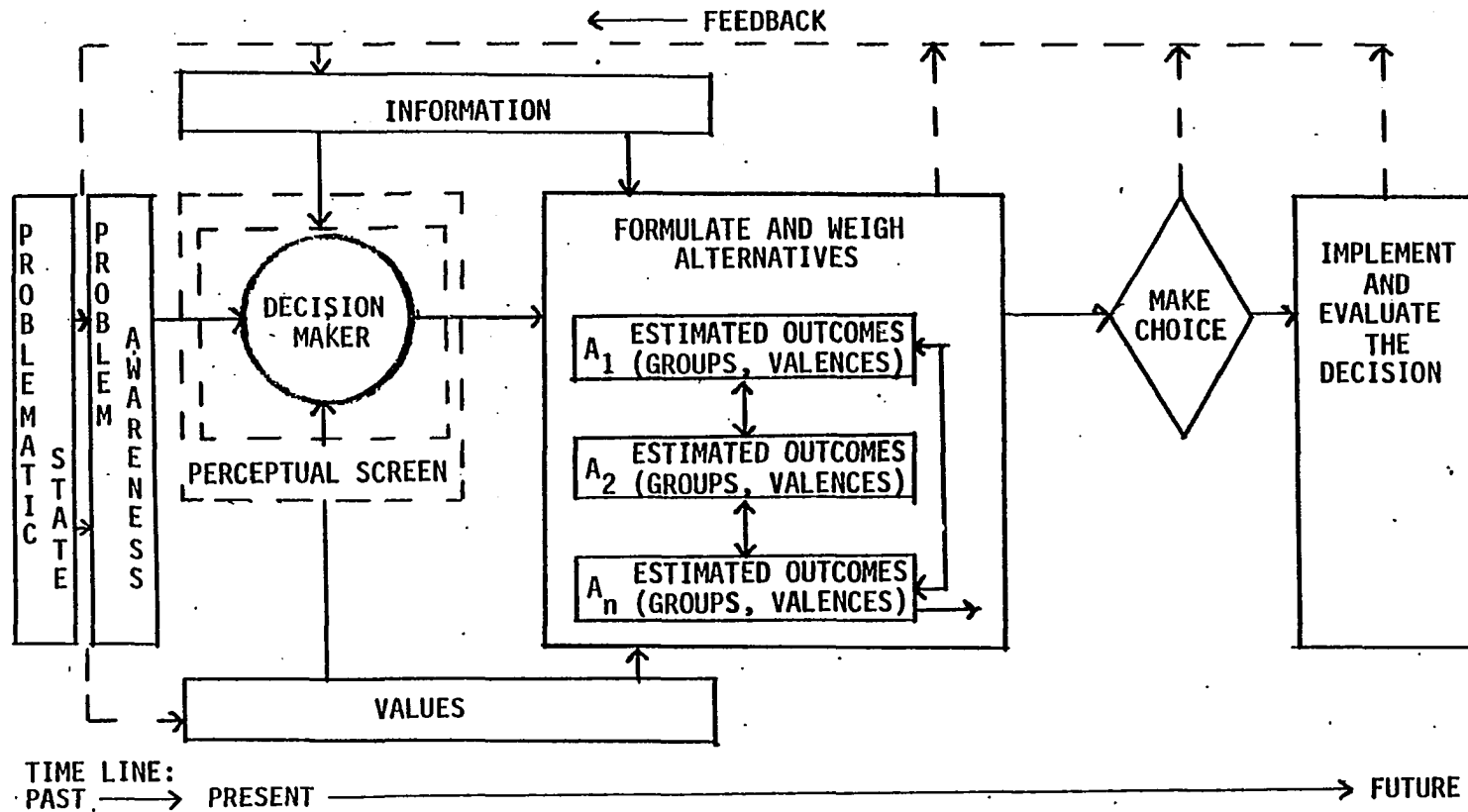
Figure 1. Lipham's decision-making model

These are equivalent to step three: consider the unintended conse-
quences. The "develop a course of action" step is represented by the
decision symbol entitled "Make a choice." Step five is one of the
final steps of the decision-making process: implement the chosen
course of action. The unit "Implement and evaluate the decision" is
represented by step six: evaluate the outcome.

The steps of the decision-making process

To further develop support and understanding of the rational
decision-making process, each step of the process is examined in detail.

Define the problem   This is a crucial first step, one that is
universally included in discussions on the decision-making process.
Its importance was illustrated by Elbing in the following statement:
"No solution can be effective if it solves the wrong problem" (32, p.
127). As will be seen when buffers are discussed, there are many
personal and organizational variables that affect an individual's
perception when defining a situation as a problem. For the purpose of
this study, Runkel's definition of a problem was used. "We will use
the word problem to mean a discrepancy between a present state of
affairs and a more preferred state of affairs--sufficiently more pre-
ferred that one is ready to spend some energy to get there" (86, p. 10).
That definition required that the decision-maker be able to identify
the present state and what discrepancies exist between the present and
the preferred. The importance of being able to identify the real from
the ideal was stressed in Jackson's statement regarding the need to

specifically identify the problematic aspects of a situation. "Before

beginning to do anything about looking for a solution to the problem,

we have to detect that it exists, identify the problematical aspects

of the situation and then define the problem accurately" (55, p. 15).

The research indicated that the problem definition step of the deci-

sion-making process could be a weakness in educational organizations.

From the definitions provided, it is evident that having stated goals,

defined direction, and identified desired outcomes are critical to cor-

rectly identifying the problem. However, Crandall and Harris (24) and

Sarason (89) indicated that it is uncharacteristic of educational

institutions to have goal clarity and well-defined intended outcomes.

Develop alternatives   Once the first step is accomplished, the

problem is defined and a preferred state is identified, it is necessary

to develop possible means of reaching that preferred state. Lipham

and Hoeh focused attention on this step with the following statement:

> Decision making is a process wherein an awareness of a
> problematic state of a system, influenced by informa-
> tion and values, is reduced to competing alternatives
> among which a choice is made based on perceived outcome
> states of the system (70, p. 155).

Benjamin and Walz suggested the following techniques for generating

alternatives: "brainstorming," a technique for generating ideas and free-

ing up thinking with the emphasis on developing the widest number of

possible solutions; "acquiring resources," researching the problematic

situation to see what alternatives have previously been developed for

use in similar situations; consulting more experienced individuals to

take advantage of their expertise; and "observing others" in similar

situations to see how they react and how possible alternatives work

(10, pp. 23-24).

There are a number of factors that hinder the decision-maker in

the task of developing alternatives. Adams identified six of these

factors in the following manner:

1. Difficulty in Isolating the Problem--A relatively small
time spent in carefully isolating and defining the problem
can be extremely valuable both in illuminating possible
simple solutions and in ensuring that a great deal of effort
is not spent only to find that the difficulties still exist--
perhaps in even greater magnitude.

2. Tendency to Delimit the Problem Area Too Closely--Just
as it is sometimes difficult to isolate the problem proper-
ly, it is also difficult to avoid delimiting the problem too
closely. (In other words, one should not impose too many
constraints upon it.)

3. Inability to See the Problem from Various Viewpoints--It
is often difficult to see a problem from the viewpoint of all
of the interests and parties involved.

4. Seeing What You Expect to See - Stereotyping--One simply
cannot see clearly if one is controlled by preconceptions.

5. Saturation--Saturation takes place with all sensory
modes. If the mind recorded all inputs so that they were
all consciously acceptable, our conscious mind would be very
full indeed. Many extremely familiar inputs are not recorded
in a way which allows their simple recall.

6. Failure to Utilize all Sensory Inputs--Problem-solvers
need all the help they can get. They should therefore be
careful not to neglect any sensory inputs (2, pp. 13-29).

Being aware of the techniques for generating alternatives and the

inherent roadblocks should allow the potential decision-maker to gener-

ate a suitable selection of competing alternatives from which to make

a choice.

Consider the unintended consequences   When alternatives are

generated, the decision-maker has a tendency to consider them only from

his/her own viewpoint. Since the alternatives are being considered as

solutions to an existing problem, they are seldom considered as the

possible causes of future problems. However, it is extremely important

to examine the alternatives for any unintended consequences that the

implementation of the selected alternative may cause. Bailey has

identified insufficient or incorrect information about the alternatives

to be a primary breakdown in the decision-making process and a leading

cause for failure when implementation of an alternative is attempted

(7).

Unintended consequences, or adverse consequences as Kepner and

Tregoe referred to them, are defined in the following manner: "An ad-

verse consequence is a future problem resulting from an action taken.

Such threats are assessed as to seriousness and probability" (61, p.

49). Each possible solution has the potential of arousing positive,

negative, or neutral reactions from those affected by the decision.

For that reason:

> Each alternative is assessed as to whether it satisfies each
> of the "musts" and as to how well, relative to each of the
> other alternatives, it achieves each of the "wants."
>
> The best alternative meets all the "must" requirements and
> gives the most of what is wanted with the fewest disadvantages;
> it is the action that, on balance, does the best total job
> (61, p. 49).

Knowing if an alternative meets all the musts of a situation, how

many of the wants it satisfies, and what positive and negative reactions

may result if it is implemented allow the decision-maker to do a more thorough job planning a course of action.

Develop a course of action   Each of the previous steps has been important in its own right, but they are preparatory in nature when the total decision-making process is considered. This step, developing a course of action, is where the deciding actually takes place. The decision-maker must choose from among the available alternatives and map the necessary strategies to gain acceptance for the decision. Benjamin's change model mapped five strategies that help to facilitate this step of the process:

1. The weighing process. Deciding means comparing one alternative with another, weighing costs, accessibility of materials, benefits to the client system, possible negative side effects, amount of staff development training required, compatibility with the system, ease of infusion into ongoing activities.

2. Establishing criteria. A particularly helpful way to make a final decision is for the change agent team to develop a list of criteria to be applied to each of the options that are under consideration.

3. Using force-field analysis. This is a technique which helps to analyze the forces working for or against contemplated change, in people and the situation--a very useful method in the decision-making process.

4. Adapting the innovation. Because no innovation will meet all of your criteria, you need to review the ones that seemingly have the greatest potential for adaptation to your needs.

5. Rallying the team. If the change agent can rally the team behind the selected innvoation, keep communication flowing between and among the members, deal openly and constructively with conflicts that may arise, and maintain a sense of optimism about the project; he/she will have accomplished one of the most difficult and critical tasks in the change effort and will be off to a splendid start (10, pp. 28-29).

<u>Implementing the decision</u>   Following planned strategies like
the ones previously discussed in the review of the first four steps
would seem to make implementing the decision a formality. However, the
opposite is actually true. When the problem has been accurately
analyzed, goals established and intended outcomes defined, alternative
solutions generated and evaluated for intended and unintended conse-
quences, and the optimal alternative finally selected, there is too
much at stake to leave the implementation step to chance. This stage
of the process is where the decision-maker does everything possible to
improve the chances of the decision being accepted.

The implementation of "programmed" or "routine" decisions can be
achieved through highly centralized processes with low participation.
However, to implement the nonprogrammed, nonroutine decisions, a less
centralized, highly participative procedure is often more successful.
Several of the authors reviewed cited involvement as a key to the
acceptance of a decision. Although involvement was identified as a key
to acceptance, Watkins and Richmond (107, 84) cautioned that the
decision-makers must keep participation in the decision-making process
within reason or it will appear that they have abdicated their responsi-
bilities.

Most business decisions are reached and support garnered for their
acceptance through the analysis and weighing of the financial variables
involved. However, educational decision-making frequently involves non-
financial matters, and for that reason a thorough understanding of the
implementation step of the decision-making process is extremely

important. Benjamin and Walz identified six phases that an individual or an organization goes through leading to the final acceptance of a change:

a. Awareness--exposure to an innovation, passive interest, easy forgetting, questionable motivation to seek further information.

b. Interest--open mind, active information-seeking, formation of positive or negative attitudes or feeling.

c. Evaluation--mental trial of the innovation, decision on whether it is worth the effort to proceed.

d. Trial--tentative use of the innovation, readiness to abandon it if it is not useful or pleasant.

e. Adoption--weighing of results of trial, decision to adopt or reject.

f. Integration--routine use of innovation, acceptance into formal patterns of activities or behaviors (10, pp. 32-33).

To further enhance and gain acceptance of decisions not measurable in terms of dollars saved or lost, Temkin and Clark (102) recommended that the gains that will be produced by the change be publicized; that those who will benefit by the change are involved; that the staff shows its enthusiasm and commitment for the change; and that good communications links be established so that the facts about the change or innovation are known.

Tannenbaum et al. summarized the factors influencing the acceptance of a decision into three categories: (1) "Superiors." The superior can impose constraints on subordinates, can eliminate the discretion previously allowed subordinates, and they can dictate the decision and thus impose the change on the subordinates. (2) "Subordinates." The decision may be imposed upon the subordinates but their acceptance and

performance will determine if the solution is successful or creates another problem. (3) "Outside groups and agencies." Government agencies, pressure groups, and parties to contracts can have a great deal of influence on the success or failure of decisions (100). The successful educational decision-maker must take all of these factors into consideration and employ tactics such as those identified by Temkin and Clark or a well-developed process for educational decision-making will be rendered ineffective.

Evaluating the decision   The cyclical nature of the decision-making process warrants the evaluation of each decision. If the decision has been the optimal decision and brought the actual state into accord with the desired state, the decision-making process is terminated. If the decision does not prove to be the optimal decision, the process is then repeated.

Ackoff (1, p. 28) has developed the following formula which accurately measures the value of a decision:

$$V = f(x,y)$$

where:

V = the measure of the value of the decision that is made;

x = the variables subject to control by the decision-maker;

y = the factors which affect performance but are not subject to control by the decision-maker; and

f = the functional relationship between the decision variables and performance factors and the dependent variable y.

The formula is very methodical and systematic but lacks practicality. It is definitely limited in its application and Ackoff admitted this shortcoming. "At the present time we can formulate only a few research problems in this way, but this achievement is the product of just a few years of such study of research procedures" (1, p. 28).

Somewhat more practical but still difficult to quantify is the formula provided by Schatz (91, p. 130):

$$ED = Q \times A$$

where effective decision (ED) is the product of the degree to which a decision has quality (Q) (this concerns objective facts) and acceptance (A) (this concerns the feelings of those who must execute the decision).

Nickerson and Feehrer have provided two standards against which decisions can be judged--the decision's effectiveness or the logical soundness and defensibility of the selected decision (79). They feel that the logical soundness and defensibility of the decision is the best criterion to use in evaluating decisions. However, the effectiveness of the decision as judged by the outcome is the standard most often applied. This is unfortunate because the outcome is often influenced by many uncontrollable variables.

The rational decision-making process is a sound, well-developed process. Each step has been the subject of numerous research projects and has attained a level of sophistication. However, Cross, in his study involving principals, pointed out the volume of decisions made per day (over 100) and suggested that the classic decision-making

steps are often ignored (25, p. 158).

Buffering/Screening

A major portion of this study focused on the use of buffers as part of the decision-making process, in what types of situations they were employed, and if there was a difference in the way the two groups of superintendents employed them. The literature available on buffers and buffering was limited, but a careful review of the literature identified three levels of buffers that will be discussed here.

Many situations present themselves and have the potential to be problems but are not perceived as problems by the decision-maker. "Frustration, irritation, anger, or confusion is often a feature of a problem--part of the present state of affairs--but it is not in itself a problem" (86, p. 10). Each individual sees a situation from a unique frame of reference, and that frame of reference determines if the situation will be defined as a problem.

> That frame of reference includes all the internal factors
> that are important to the individual--for example, his at-
> titudes, norms, values, beliefs, fears, goals, etc.--as well
> as all the external stimuli which supplement the original
> stimulus situations, such as other people, the location,
> the physical environment, the sequence of acts, and the
> like (32, p. 130).

Level I--Perceptual screen

The frame of reference concept is examined in more detail as a "perceptual screen" (70, p. 159) or as a "perceptual block" (2, p. 13). The perceptual screen of the decision-maker interferes with the way problematic situations are defined and the way information is processed

once the decision-making cycle has begun. "Many factors in addition
to values constitute the perceptual screen of the decision maker, in-
cluding such personalistic variables as intelligence, creativity, need-
dispositions, abilities, and even biological states of the organism"
(70, p. 90).

The nature of the variables identified as having an effect on the
perceptual screen would indicate that this level of buffer operates
within the individual's subconsciousness. The fundamental nature and
the personalistic variables of the perceptual screen make it the buffer
most frequently activated. The fact that the perceptual screen of the
decision-maker prevents certain situations from being defined as
problems illustrates the importance of knowing these personalistic
variables well enough to deal with and compensate for them. Buffers
of this nature will be referred to as Level I buffers.

Deferring decisions   Once the situation has pierced the percep-
tual screen and gained the status of a problem, the question remains of
whether or not to act. Lippit et al. addressed the question in the fol-
lowing manner: "Moreover, problem awareness is not automatically trans-
lated into a desire for change. First there must be at least some confi-
dence in the possibility of a more desirable state of affairs" (71, p.
131). There is no reason to change unless improvement can be achieved
through a reasonable investment of time and effort. The degree of im-
provement and reasonableness of the investment are measured according to
the decision-maker's standards and those standards are affected by the
individual's perceptual screen. This judgment is most often made with

very little thought or planning. "Most of us, almost without thinking, make a judgment about whether a frustration is worth the investment of energy to remove it or whether the frustration will remove itself in the natural course of events" (86, p. 10).

Juniper identified four reasons for not acting promptly to solve a problem. "Deferring a decision can be an act of judgment, a well-engrained habit, a tactic in a grand strategy, or a gesture of desperation" (58, p. 271). Hoy and Miskel referred to this strategy as using "temporary and preliminary alternatives" (53, p. 274). The use of temporary or preliminary alternatives is not without risk and Hoy and Miskel referred to that. "The key in developing preliminary and temporary alternatives is that, if successful, they 'buy time' without creating hostility" (53, p. 274).

The possibility of creating hostility leads to a discussion of when to be decisive and when to delay, defer, or avoid making decisions. Of the four reasons for deferring a decision cited by Juniper, two are adaptive behaviors--"acts of judgment" and "tactics within grand strategies"--and two are maladaptive behaviors--"engrained habits" and "gestures of desperation." To help the decision-maker to use decision delay as an adaptive behavior, Jackson has identified two general guidelines for when not to be decisive:

1. Where the problem can be expected to decline in importance if left alone for a while, either because the objective is obsolescent or because the potency of the obstacle is coming to an end.

2. Where there is much at stake and a rash decision could cause a serious error to be made (55, p. 167).

Sharma and Carnahan (93) and Taylor (101) identified these tactics as "decision delay" and "decision avoidance." Decision delay is a passive act and may be adaptively employed as a technique or buffer. However, "decision avoidance is an active and lively art" (93, p. 4). The avoidance tactics are maladaptive and used by the non-deciders.

Level II--Standard operating procedure

Level II buffers are decision-making shortcuts that establish standard procedures for handling routine recurring problems through the development and implementation of policy. Thompson defined this level of buffer in terms of manufacturing technology: "Under norms of rationality, organizations seek to buffer environmental influences by surrounding their technical cores with input and output components" (104, p. 20). He illustrated this with an analogy to the industrial situation where goods, supplies, and finished products are stockpiled to meet supply and demand fluctuations. This stockpiling prevents normal market fluctuations from pushing the manufacturer into a problematic situation. In the context of decision-making and problem-solving, this would be the same as developing a policy to handle a certain recurring situation. The policy would serve as a buffer, easing the tensions of the situation without further activating the decision-making process each time the situation occurred.

Davies and Herrold described the relationship between a policy and a decision in the following manner:

> In effect, a "policy" is a decision as an aid to further deciding. Once a policy is established, many questions

that arise can be settled at a lower administrative level.
The handling of them may even become routine (28, p. 16).

The policy may not actually decide an issue, but it should indicate "who
is to make a decision, what the decision is to be concerned with, and
how the decision is to be made" (64, p. 45).

Level III--Systematic filtering

The level three buffers are the more refined tools and require
planning and prioritizing for them to be effective and valuable. Katz
and Kahn have suggested that not all of the information available to
the decision-maker is processed. They feel that the information is
systematically filtered and ignored if it does not negatively affect
the organization (59, p. 231).

Brown referred to this concept of a planned and prioritized means
of selectively processing information as "tension management" and the
techniques used as "buffers" (19, p. 154). Brown's work with buffers
related specifically to schools and is the most complete effort dis-
covered through the review of literature. He has stated that "buffer-
ing tension is not an accidental or haphazard activity but a conscious
effort on the part of both administration and teachers" (19, p. 156).

Brown has specifically identified five buffering techniques:

Buffer #1: No-jurisdiction. One way to limit responding
to sources of environmental tension is to disclaim authority
to resolve the issue (19, p. 158).

Buffer #2: Strategic Catharsis. A second strategy is to
allow complainers to "talk it out." If complainers are given
a way of "letting off steam," their problems seem smaller
and they do not pursue them (19, p. 159).

Buffer #3: Strategic Stalling. The problem is given such
a low priority for action that it is never really acted upon
(19, p. 160).

Buffer #4: Ignoring Turbulence. In order for an environment
to be turbulent and require decision-making activity to resolve
environmental problems, school personnel must define and then
respond to the environment as turbulent. That is, there is
no need to act to resolve problems if the situation is not
defined as problematic (19, p. 163).

Buffer #5: Protective Blocking. Blocking as a buffering
tactic is an organizational attempt to emphasize the point
that there are some issues in which school personnel and
school personnel alone maintain decisional jurisdiction (19,
p. 165).

Brown summarized buffering in the following manner:

Buffering, then, is a combination of techniques used by
teachers and administrators to try and limit the number
and kind of issues which stimulate internal decision-
making activity. The primary function of buffering is
to provide front-line screening of environmental influ-
ences so as to maintain a relatively stable decision-
making process (19, p. 166).

Penetrating the buffer

"The buffer can be ineffective, though, both through forceful pene-

tration by external and internal sources of tension and by the willing

removal of the buffer by school personnel" (19, p. 166). Benjamin and

Walz identified buffering attempts as barriers and have suggested the

following plan or model for overcoming barriers:

1. Identify the barriers.
2. Prioritize the barriers, if more than one exist.
3. Develop strategies to deal with each barrier.
4. Develop a plan of action to implement the strategies (11).

Brown has been more specific in his discussion on penetrating buffers

and has identified four specific means of penetration.

1. Voluntary Action to Reduce Tension. The status incumbent receiving the environmental stimulus may voluntarily activate the school decision-making cycle (19, p. 166).
2. Sources of Tension that Resist Buffering. When the environmental tension will not retreat but continues to press organizational buffers (19, p. 167).
3. Formal Requests from Superordinates in the Hierarchy. The use of the formal, bureaucratic hierarchy (19, p. 169).
4. Refer to Another Center of Authority. Refer the source of tension to another segment of the school decision-making structure (19, p. 170).

From the review of literature dealing with the buffering process, particularly Brown's work, it is apparent that decision-makers do not respond to all problematic situations in the same manner. The Level I buffers, perceptual screens, prevent some situations from being defined as problems. Level II buffers limit the decision-making process by providing policy and procedure for handling the routine recurring problems. The Level III buffer is cited as being a planned and prioritized technique, a refined tool in the decision-making process.

Thinking/Learning Styles

Thinking/learning styles were examined to determine if there was a predominant style that characterized the exemplary superintendents and if there was any linkage between their identified styles and their proficiency as decision-makers.

Style, as defined in the literature, was referred to as "Decision Style" by Henderson and Nutt (50), "Cognitive Style" by Ackoff (1), "Learning Style" by Keefe (60), and just "Style" by Gregorc (38). Keefe's definition contained the basic tenets cited by the researchers and is representative of the literature in general.

Learning styles are characteristic, cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment (60, p. 4).

The preliminary research on this project focused on the works of Gregorc and the cooperative efforts of Harrison and Bramson. Harrison and Bramson identified five Inquiry Modes which they have called Styles of Thinking.

1. The Synthesist--Synthesists are forever looking for conflict, disagreement, change, newness, and they have a habit of questioning people's basic assumptions about things. They pride themselves on their "creativity," incisiveness, and often secretly, on their cleverness.

2. The Idealist--Idealists are people who like to take a broad view of things. They also tend to be future-oriented and to think about goals: that is, "Where are we going and why?"

3. The Pragmatist--The Pragmatist approach is flexible and adaptive. And Pragmatists take pride in their adaptability.

4. The Analyst--Analysts approach problems in a careful, logical, methodical way, paying great attention to details. Planning carefully, they gather as much information as possible before making a decision, and they seldom "shoot from the hip."

5. The Realist--Realists are empiricists. That is, what is "real" to them is what can be felt, smelled, touched, seen, heard, personally observed or experienced (45, pp. 10-16).

To assess the individual's "Thinking Style," they developed the inQ questionnaire. The questionnaire is a self-assessment instrument consisting of eighteen (18) partial sentences, each having five possible endings. The person completing the questionnaire must rank order the five responses. Evaluation of the completed questionnaire reveals

the individual's "Thinking Style." Bramson and Harrison have found

that 50 percent of the population rely on a single set of strategies,

35 percent use a pair of strategies, 13 percent show a flat profile

(no dominant style), and 2 percent rely on three combined styles.

Gregorc has conducted research on style for over a decade and

has developed a system of thought called ORGANON. "The ORGANON System

is an organized viewpoint of how and why the human mind functions and

manifests itself through the human personality" (38, p. v). To assess

style, Gregorc developed the Style Delineator.

> It is based on a Mediation Ability Theory which states that
> the human mind has channels through which it receives and
> expresses information most efficiently and effectively. The
> power, capacity, and dexterity to utilize these channels are
> collectively termed mediation abilities (38, p. 5).

The Delineator examines two mediation abilities, Perception and

Ordering. Perception is examined in terms of two qualities: Abstract-

ness and Concreteness. Ordering, the way an individual arranges and

disposes of information, emerges in the qualities of Sequence and

Randomness (38). Gregorc has offered the following definitions of

these key qualities:

> Perception--Perceptual abilities are the means through which
> you grasp information.
> > Abstractness--This quality permits you to apprehend
> > and perceive that which is invisible and formless to
> > your physical senses of sight, smell, touch, taste,
> > and hearing.
> > Concreteness--This quality enables you to grasp and
> > mentally register data through the direct use and
> > application of the physical senses.
> Ordering--Ordering abilities are the ways in which you
> authoritatively arrange, systematize, reference, and dis-
> pose of information.

> Sequence--This quality disposes your mind to grasp and
> organize information in a linear, step-by-step, methodi-
> cal, predetermined order.
> Randomness--This quality disposes your mind to grasp
> and organize information in a nonlinear, galloping,
> leaping, and multifarious manner (38, p. 5).

The qualities of abstractness, concreteness, sequence, and randomness influence the manner in which the steps of the rational decision-making processes are carried out.

These qualities couple with each other and form four channels that Gregorc uses to identify an individual's style: (1) Concrete/Sequential CS; (2) Abstract/Sequential AS; (3) Abstract/Random AR; (4) Concrete/Random CR (38, p. 6). The placement of an individual in one of the above channels is done according to the relative value, 1-5, assigned to each word or phrase found in ten sets of words. The scores are then plotted on a matrix and evaluated according to the dominant style characteristics.

The era in which a decision-maker received his/her training, the variables involved in a situation, and the decision-maker's style all could affect the individual's decision-making ability. Miner indicated that managers trained during the sixties may be less effective because of the attitudes held toward managerial positions during that time period (76).

Vroom and Yetton have explained that the variables involved influence the decision-making process used. This would indicate that the better decision-makers are flexible and adaptive (106).

The strongest statement regarding style and decision-making was

made by Henderson and Nutt. Their finding supports the contentions of Ackoff, Churchman, Mitroff and Kilman, and others who argue that cognitive style (which we call decision style) has considerable influence on the decision-making process (50, p. 384).

Summary

The review of literature confirmed the existence of a rational decision-making process and the importance of each step. However, the question remaining is how frequently the process is implemented. Some of the research indicates that the volume of problems confronting today's educators is so great that it would be impossible to use the rational decision-making process for each one.

The literature on buffers verifies the existence of some techniques that can be employed to limit decision-making activity, but when to use a buffer and the effectiveness of buffering remain unclear.

Style plays a role in the way a decision-maker perceives and approaches a problem. The avowed purpose of this study was to examine the linkages between decision-making, buffering, and learning/thinking styles.

CHAPTER III. METHODS AND PROCEDURES

The purpose of this study was to examine the decision-making process and the effects of buffering and thinking styles on the process as employed by public school superintendents in Iowa. To accomplish this, comparisons were made between superintendents identified by their peers as being exemplary and a group of randomly selected superintendents. This chapter describes the selection and development of the measurement instruments, the samples, the hypotheses to be tested, and the statistical procedures used to test the hypotheses.

Selection of the Sample

Two sample groups were drawn from the population of public school superintendents in Iowa. A pool of exemplary superintendents was identified through the use of a reputational survey that was conducted in each of the state's fifteen (15) Area Education Agencies (AEA). The superintendents' group in each AEA is chaired by a superintendent elected by his peers, and that individual distributed, collected, and returned the reputational surveys. The survey instrument (see Appendix B) consisted of a cover letter and a roster listing each superintendent in the AEA. The instructions asked that each superintendent identify two superintendents whom they considered to be exemplary. To avoid identifying individuals with a singular strong suit, they were asked to consider the overall performance of the individual in the areas of personnel, curriculum, collective bargaining, and planning. The two superintendents from each area agency with the most votes recognizing them as exemplary were

selected for the exemplary sample. This resulted in thirty (30) super-
intendents being identified for the exemplary sample.

The superintendents identified as exemplary were eliminated from
the group, and a table of random numbers was used to draw a random
sample from the state as a whole equal in size to the exemplary sample.

Instrumentation

Two instruments were used to collect the data to be processed in
this study: the Gregorc Style Delineator and a researcher-developed
questionnaire.

The Gregorc Style Delineator focuses on the concepts of perception
and ordering. Perception is expressed in the qualities of abstractness
and concreteness. Ordering emerges as sequence and randomness. Combin-
ing the qualities of perception and ordering forms four distinct chan-
nels, designated as: Concrete-Sequential (CS), Abstract/Sequential
(AS), Abstract-Random (AR), and Concrete-Random (CR). The instrument is
designed to identify an individual's main channel "through that person's
ranking of the descriptive words in the Delineator" (38, p. 6).

The strong reliability of the instrument was established through
the use of standardized alpha coefficients which exhibited a strong in-
ternal consistency, ranging from 0.89 to 0.93 on the four attributes.
The test-retest correlation coefficients were all significant at the
$p<0.001$ level and ranged from 0.85 to 0.88 (39, pp. 18-19). The pre-
dictive validity of the instrument was rated as moderately strong and
yielded test-retest correlation coefficients ranging from 0.55 to 0.76
(39, pp. 18-25).

The researcher-developed questionnaire (see Appendix C) has two distinct parts. The first part was designed to collect demographic data which was needed for the development of a profile for each participant. The following information was requested: administrative experience, years as a superintendent, school size, highest degree earned, and the amount, recency and format of any training in decision-making.

The major portion of the questionnaire presented ten (10) situations and asked the respondents to identify a priority ranking for each situation, to rank order the possible solutions according to their preferences, and on two of the situations asked that the respondent rank order any of the six strategies that were used. The possible solutions to each situation were developed to represent direct answers and buffered responses. The six strategies on situations two (2) and nine (9) were actually versions of the rational decision-making process that were couched to prevent them from being immediately identified due to the terminology involved.

The content validity of the researcher-developed questionnaire was established through the use of an expert panel. A packet (see Appendix D) that included instructions, definitions, and structured questions was developed to guide the panelists in their review of the questionnaire. The expert panel consisted of:

Norman Boyles: Professor of Educational Administration, Iowa State University, Ames, Iowa

Luther Kiser: Assistant Superintendent for Curriculum and Instruction, Ames Community Schools, Ames, Iowa

Anton Netusil: Professor of Research and Evaluation, Iowa State

University, Ames, Iowa

Charles Railsback: Assistant Professor of Educational Administra-

tion, Iowa State University, Ames, Iowa

James Sweeney: Associate Professor of Educational Administration,

Iowa State University, Ames, Iowa

The suggestions and critiques of these individuals were used to establish and verify which solutions represented buffering responses and which represented direct answers. The panel examined the six strategies in situations two and nine and were able to place them in the sequential order of the decision-making process. The panel also verified the appropriateness of the situations and the viability of the alternatives. According to pre-established criteria, revisions were made whenever two panelists had similar difficulties or questions regard-ing any item within the instrument.

The questionnaire was field-tested using five superintendents who were asked to examine the time needed to complete the questionnaire, the clarity of the directions, and the acceptability of the form. The superintendents participating in this field test have had administra-tive experience as a superintendent ranging from four to twelve years, represent schools ranging in population from 360 to 1600, and have received degrees from three of Iowa's major universities.

The internal reliability of the instrument was tested with the reliability program available with the Statistical Package for the Social Sciences (SPSS). The standardized alpha was used to represent

the internal consistency of the instrument. When the sixty (60) observations were received, the responses for each item on situations one through nine of the researcher-developed questionnaire were recorded and used to yield a standardized alpha coefficient. The coefficient yielded was .65 which represents a moderate degree of internal consistency.

<div align="center">Collection of Data</div>

Identical packets were mailed to each of the sixty (60) superintendents identified for the study. Identification numbers were coded to identify members of the random and exemplary samples. Each packet included a cover letter (see Appendix E), the Gregorc Style Delineator, and the researcher-developed questionnaire.

Two weeks after the initial mailing, all but eight of the packets had been returned, and a follow-up phone call was used to encourage the remaining individuals to complete and return the questionnaires. The phone call was followed by a letter thanking each of the remaining individuals for agreeing to complete the questionnaires. A second phone call and the redistribution of materials yielded complete returns from all sixty (60) superintendents.

<div align="center">Data Treatment and Analysis</div>

The Gregorc Style Delineator included instructions to the participant for self-scoring, tabulating, and plotting the results. The researcher verified the participants' scoring of the instrument and recorded the scores according to the categories: Concrete/Sequential

(CS), Abstract/Sequential (AS), Abstract/Random (AR), and Concrete/ Random (CR).

The researcher-developed questionnaire yielded four types of information:

(1) Demographic Data--Information was gathered about each participant which provided group profiles for the random and exemplary samples. The demographic data section also identified those who had received training in decision-making, what type of training, and how recent.

(2) Priority Score--Using a Likert-type scale, a priority score was generated for each of the ten situations. The priority score established how important each participant viewed the situation. One (1) was the lowest priority/importance and five (5) was the highest priority/importance.

(3) Buffering Score--The buffering score was determined by the rank order number given to the buffering responses on a one (1) to four (4) scale. One represented the most desirable choice and four the least desirable choice. The number of buffering responses for each situation ranged from one to three. For purposes of comparison, the mean score of the buffering responses was used for each respondent. It should be noted that the lower the mean score, the more desirable the choice.

(4) Rational Decision-Making Process Score--On situations two (2) and nine (9), the participants rank ordered the strategies they may have employed on a basis of one (1) to six (6). These strategies

were actually couched examples of the various steps in the rational decision-making process. A response was considered to be correct when the rank order assigned to the strategy by the respondent agreed with that strategy's rank order in the rational decision-making process. The correct responses for each strategy on situations two and nine were tallied and the correct versus incorrect responses were used to measure decision-making proficiency. The possible range of scores was 0-6 for each of the two situations.

To analyze the data, a Group t-test with a .05 level of significance was used with each situation to determine if the exemplary superintendents use buffering more than the randomly selected superintendents. The Pearson product-moment coefficient with a .05 level of significance was used to test the correlation between priority scores and buffering scores. To test the relationship between exemplary superintendents and their thinking styles, the decision-making proficiency between the two groups, and the differences in decision-making proficiency between those with and without training in decision-making; the chi-square distribution with a .05 level of significance was the test statistic. Frequency distributions were used to examine and compare how strategies were used, the proficiency scores, and the correct ordering of responses to determine where the decision-making process breaks down. To accept or reject a hypothesis where tests of significance were run on multiple steps within the hypothesis, it was determined that significance must be found on more than two of the steps.

Hypotheses to be Tested

(1) The use of the buffering alternatives by the exemplary super-
intendents will be significantly greater than the ranking of
buffering alternatives by the randomly identified superintendents.

(2) There is no significance between buffering scores and priority
ranking in either of the identified samples and the combined groups.

(3) There is no significant difference between the decision-making
proficiency of exemplary and randomly selected superintendents.

(4) There is no significant difference between superintendents and
their thinking styles.

(5) Breakdowns in the decision-making process most frequently occur
in the area of unintended consequences.

(6) There is no significant difference in the decision-making profi-
ciency of those superintendents who have received training in
decision-making and those who have not.

Summary

This chapter detailed the procedures carried out in the conduct of
this study. The selection and development of appropriate measurement
instruments were described. The methods used to identify the exemplary
and random sample groups were described. The procedures used to col-
lect, treat, and analyze the data were detailed.

CHAPTER IV. FINDINGS

The major purposes of this study were to examine the decision-making
process as it is implemented by superintendents in the state of Iowa,
investigate the use of buffering responses, and to make comparisons be-
tween the way exemplary and randomly selected superintendents make deci-
sions. When the data had been collected, the statistical analyses
described in Chapter III were carried out. Each hypothesis is discussed
in this chapter relative to the results yielded through the statistical
analyses.

Profile of the Respondents

Sixty (60) superintendents were asked to respond to a ten item re-
searcher-developed questionnaire and the Gregorc Style Delineator. All
sixty responded to the questionnaires. Thirty (30) of the superintend-
ents were identified by their peers as being exemplary and are represent-
ative of the fifteen (15) Area Education Agencies within the state. The
other thirty (30) were randomly drawn from the state as a whole. The
demographic data provided by the superintendents revealed that the two
groups were very similar in the areas of experience and year when their
last degree was received. Over 70 percent of the respondents from both
groups had over 15 years experience as administrators, and over 40 per-
cent had been superintendents for more than 15 years. Over 60 percent of
all the superintendents surveyed were educated during the late sixties
and early seventies. The greatest differences in the two groups were the
areas of school size, highest degree received, and training in decision-

making. The exemplary superintendents tended to represent the larger schools in their Area Education Agency; over 50 percent held doctorates, and over 70 percent recognized recent training to include the area of decision-making. The randomly selected superintendents represented smaller schools; less than 20 percent had doctorates, and less than 50 percent had received training that they recognized to be in the area of decision-making. Table 1 provides a numerical representation of all sixty (60) respondents, Table 2 profiles the thirty (30) exemplary superintendents, and Table 3 profiles the thirty (30) randomly selected superintendents.

Hypothesis Number One

The use of the buffering alternatives by the exemplary superintendents will be significantly greater than the ranking of buffering alternatives by the randomly identified superintendents.

This hypothesis was formulated to examine who uses buffering techniques in an attempt to link buffering to exemplary superintendents. A Group t-test was used to test the null hypothesis against the directional hypothesis at the .05 level of significance.

The individual's buffering score for each situation was determined by adding the rank order number assigned to each buffering response and then dividing by the number of possible buffering responses in the situation. The individual's buffering score for each situation was then used to calculate a mean buffering score for each situation according to the respondent's group, random or exemplary. It should be noted that the lower the mean score, the more desirable the choice. The mean scores were then used to test the hypothesis. The mean buffering scores for each situation and the resulting t-statistics are reported in Table 4.

Table 1. Profile of superintendent resondents

Variables	Number	Percent of superintendents responding
Years experience as administrator		
0-5	2	3.33
6-10	6	10.00
11-15	8	13.33
15+	44	73.33
Years experience as superintendent		
0-5	8	13.33
6-10	14	23.33
11-15	12	20.00
15+	26	43.33
Years in current position		
0-5	21	35.00
6-10	14	23.33
11-15	14	23.33
15+	11	18.33
Range of school size	150-31,000	
Average school size	2336	
Highest degree held		
Master's	17	28.33
Specialist	23	38.33
Doctorate	20	33.33
Year degree received		
50s	9	15.00
60s	19	31.67
70s	24	40.00
80s	8	13.33
Any training in decision-making?		
Yes	36	60.00
No	24	40.00
How recent was training?		
0-1	3	8.33
2-3	13	36.11
4-5	7	19.44
5+	13	36.11

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Table 2. Profile of exemplary superintendent respondents

Variables	Number	Percent of superintendents responding
Years experience as administrator		
0-5	0	--
6-10	3	10.00
11-15	5	16.67
15+	22	73.33
Years experience as superintendent		
0-5	2	6.67
6-10	9	30.00
11-15	6	20.00
15+	13	43.33
Years in current position		
0-5	10	33.33
6-10	7	23.33
11-15	6	20.00
15+	7	23.33
Range of school size	400-31,000	
Average school size	3990	
Highest degree held		
Master's	6	20.00
Specialist	9	30.00
Doctorate	15	50.00
Year degree received		
50s	3	10.00
60s	13	43.33
70s	10	33.33
80s	4	13.33
Any training in decision-making?		
Yes	22	73.33
No	8	26.67
How recent was training?		
0-1	2	9.09
2-3	7	31.82
4-5	5	22.73
5+	8	36.36

Table 3. Profile of randomly selected superintendent respondents

Variables	Number	Percent of superintendents responding
Years experience as administrator		
0-5	2	6.67
6-10	3	10.00
11-15	3	10.00
15+	22	73.33
Years experience as superintendent		
0-5	6	20.00
6-10	5	16.67
11-15	6	20.00
15+	13	43.33
Years in current position		
0-5	11	36.67
6-10	7	23.33
11-15	8	26.67
15+	4	13.33
Range of school size	150-2050	
Average school size	624	
Highest degree held		
Master's	11	36.67
Specialist	14	46.67
Doctorate	5	16.67
Year degree received		
50s	6	20.00
60s	6	20.00
70s	14	46.67
80s	4	13.33
Any training in decision-making?		
Yes	14	46.67
No	16	53.33
How recent was training?		
0-1	1	7.14
2-3	6	42.86
4-5	2	14.29
5+	5	35.71

Table 4. Tests for significant differences between the mean buffer-
ing scores of the two groups of respondents

Situation #	Exemplary superintendents mean (n=30)	Randomly selected superintendents mean (n=30)	T statistic
1	3.00	3.07	
2	1.81	1.63	
3	2.17	2.20	
4	1.80	1.83	
5	1.80	1.93	
6	2.27	2.62	
7	2.28	2.24	
8	2.23	2.07	
9	2.38	2.33	
10	2.90	2.67	
Overall mean	2.26	2.26	.0258

The null hypothesis was not rejected since there was not a signifi-

cant difference in mean scores between the exemplary and randomly

selected superintendents.

Hypothesis Number Two

There is no significance between buffering scores and
priority rankings in either of the identified samples and
the combined group.

To determine the extent of the relationship between buffering scores

and priority rankings, three separate Pearson product-moment correlation

coefficients were calculated for each of the ten situations. Correlation

coefficients were calculated for the exemplary group, the randomly

selected group, and the group as a whole. Each situation was considered

independently of the others and only respondents providing both buffering

scores and priority rankings were used. This resulted in a range of 54

to 58 responses for each situation. The findings are reported in Table 5.

Table 5. Pearson product-moment correlation coefficients and tests for significance measuring the relationships of priority rankings to buffering scores for exemplary superintendents, randomly selected superintendents, and the combined group

Situation number	Exemplary superintendents		Randomly selected superintendents		Combined group	
	r	Test for significance	r	Test for significance	r	Test for significance
1	.43	2.49*	-.08	-.40	.22	1.71
2	.25	1.29	-.11	-.58	.11	.81
3	.01	.07	.17	.91	.10	.78
4	.15	.79	.22	1.17	.19	1.47
5	-.03	-.14	-.10	-.53	-.08	-.56
6	.09	.46	.11	.56	.10	.72
7	.34	1.89	-.18	-.94	.04	.33
8	.04	.22	-.09	-.48	.01	.07
9	.01	.01	.04	.21	.04	.31
10	-.08	.42	-.24	1.24	-.15	-1.13

*Significant at the 0.05 level.

The priority ranking for each situation was determined by the way the respondent marked a Likert-type scale. A low priority was indicated by one and the highest priority was indicated by five. The individual buffering score for each situation was determined by adding the rank order number assigned to each buffering response and then dividing the number of possible buffering responses in the situation.

To test the significance of the relationship between the variables in each grouping, the null hypothesis Ho:p=0 was tested against the

nondirectional alternative Ha:p≠0, at the .05 level of significance. The test statistic was computed using the following formula:

$$r = r\sqrt{\frac{n-2}{1-r^2}}$$

Table 5 lists the t-statistic for the exemplary superintendents, the randomly selected superintendents, and the group as a whole. There were no significant relationships on any of the ten situations within the combined group or within the randomly selected group; thus the null was retained. However, within the exemplary group, there was a significant relationship for situation number one and the null hypothesis was rejected for that situation. This indicates that within the exemplary superintendents' group, a positive relationship existed between the priority scores and the buffering scores for that situation.

Hypothesis Number Three

There is no significant difference between the decision-making proficiency of exemplary and randomly selected superintendents.

Situations two and nine of the researcher-developed questionnaire were created to provide a measure of decision-making proficiency. In addition to being asked to establish a priority for the situation and to rank order the possible responses, each superintendent was asked to arrange six strategies in the order in which they used them. They were instructed to order only the strategies they would actually have used. The six strategies represented the components of the rational decision-making process and were couched to prevent recognition due to the terminology involved. If the respondent placed a strategy in the order which

corresponded to the steps of the rational decision-making process, it was scored as correct. If the strategy was not placed in corresponding order, it was scored as incorrect. Strategies not used were not scored.

To test this hypothesis, the variables correct response, incorrect response, exemplary group, and randomly selected group were organized into 2x2 contingency tables and the chi-square statistic was used to test for significance at the .05 level. Each strategy in each of the two situations was separately tested. The results are reported in Table 6.

Table 6. Chi-square statistics testing the decision-making proficiency between exemplary and randomly selected superintendents

Strategy	Situation 2	Situation 9
Define the problem	.01	.09
Consider the alternatives	.95	2.30
Consider the unintended consequences	.07	4.91*
Develop a course of action	.25	5.97*
Implement a chosen course of action	.18	1.58
Evaluate the outcome	.02	.43

*Significant at the 0.05 level.

The exemplary superintendents scored significantly more correct responses on the strategies that corresponded to the following steps of the rational decision-making process on situation number nine: consider the unintended consequences and develop a course of action. However, the null hypothesis was supported on the other four strategies of situation number nine and in all six strategies of situation number two, and thus the null hypothesis was retained according to the criterion established in Chapter III.

Hypothesis Number Four

There is no significant difference between superintendents and their thinking styles.

The chi-square test for statistical significance was applied, using a .05 level of significance. The observed thinking style frequencies for the variables Concrete/Sequential, Abstract/Sequential, Abstract/Random, and Concrete/Random were measured against the expected frequencies. Table 7 lists the expected and observed frequencies for each variable and the resulting chi-square value.

Table 7. Calculation of the chi-square test statistic for the distribution of thinking styles

Thinking style	Observed frequency	Expected frequency	
Concrete/Sequential	33	15	
Abstract/Sequential	9	15	
Abstract/Random	7	15	
Concrete/Random	11	15	
Totals	60	60	$29.4 = x^2$*

*Significant at the 0.05 level.

As noted in Table 7, the calculated value of chi-square exceeds the critical value at the .05 level of significance and the null hypothesis is rejected. The largest contributor to the chi-square scores was the Concrete/Sequential thinking style where the observed frequencies far exceeded the expected frequencies.

Hypothesis Number Five

Breakdowns in the decision-making process most frequently occur in the area of unintended consequences.

To examine the question posed by hypothesis number five, descriptive statistics which related to the decision-making process were closely scrutinized. Table 8 reports the frequency distribution for the number of strategies employed by randomly selected and exemplary superintendents on situations two and nine. The frequency distributions and accompanying percentages indicate that one-third or more of the respondents employed all six strategies.

Table 9 clearly reveals that the strategies were not employed in the order identified as the rational decision-making process. No one correctly ordered all six strategies in either of the situations, and more than 40 percent failed to employ any of the strategies in their prescribed order.

The frequency distribution illustrated in Table 10 shows the number of times a strategy was placed in its correct order. Comparing the percentages for situation number two revealed that the first strategy, define the problem, was employed in the correct order more often than any of the other strategies. In situation nine, the second strategy, consider the alternatives, was employed correctly more often than the other strategies. Strategy five, implement the chosen course of action, was used in the correct order less frequently than any of the other strategies in both situations.

The statistics illustrated in Tables 8 and 9 indicate that the respondents in both the exemplary and randomly selected groups do a poor job of using a recognizable process to solve problems.

Based on the descriptive statistics compiled to examine this

Table 8. Frequency distributions and percentages of strategies used by randomly selected and exemplary superintendents

Number of strategies used	Situation 2		Situation 9	
	Exemplary superintendents (%)	Randomly selected superintendents (%)	Exemplary superintendents (%)	Randomly selected superintendents (%)
0	1 (3.33)	2 (6.67)	2 (6.67)	1 (3.33)
1	0 (0)	1 (3.33)	2 (6.67)	3 (10)
2	1 (3.33)	1 (3.33)	1 (3.33)	0 (0)
3	5 (16.67)	3 (10)	4 (13.33)	5 (16.67)
4	7 (23.33)	5 (16.67)	8 (26.67)	5 (16.67)
5	6 (20)	2 (6.67)	2 (6.67)	3 (10)
6	10 (33.33)	16 (53.33)	11 (36.67)	13 (43.33)
Totals	30	30	30	30

Table 9. Frequency distributions for proficiency scores for randomly selected and exemplary superintendents

Number of strategies used correctly	Situation 2		Situation 9	
	Exemplary superintendents (%)	Randomly selected superintendents (%)	Exemplary superintendents (%)	Randomly selected superintendents (%)
0	13 (44.83)	13 (46.43)	13 (46.43)	22 (78.57)
1	7 (24.14)	9 (32.14)	9 (22.14)	5 (17.86)
2	7 (24.14)	4 (14.29)	4 (14.29)	0
3	1 (3.45)	1 (3.57)	1 (3.57)	1 (3.57)
4	0	1 (3.57)	1 (3.57)	0
5	1 (3.45)	0	0	0
6	0	0	0	0
Totals	29	28	28	28

Table 10. The frequency distributions and corresponding percentages
for correct ordering of the strategies in situations two
and nine

Strategy	Situation 2 number correctly ordered (%)	Situation 9 number correctly ordered (%)
Define the problem	10 (31.25)	5 (12.82)
Consider the alternatives	9 (18.00)	14 (27.45)
Consider the unintended consequences	11 (20.75)	4 (10.00)
Develop a course of action	10 (19.61)	5 (9.62)
Implement chosen course of action	5 (11.11)	4 (9.52)
Evaluate the outcome	11 (27.50)	5 (16.13)

hypothesis, the premise that the breakdown most frequently occurs in
the area of unintended consequences cannot be supported. Table 10
indicates that the implementation step is the weakest strategy in
the rational decision-making process.

Hypothesis Number Six

There is no significant difference in the decision-making
proficiency of those superintendents who have received train-
ing in decision-making and those who have not.

To test this hypothesis, the variables correct response, incor-
rect response, superintendents with training in decision-making, and
superintendents without training in decision-making were organized
into a 2x2 contingency table. The chi-square statistic was used to

test for significance at the .05 level. Table 11 shows the chi-square

scores for each of the six steps of the rational decision-making

process.

Table 11. Chi-square statistics testing the decision-making profi-
ciency between superintendents with and without training
in decision making

Strategy	Chi-square
Define the problem	.19
Consider the alternative	.19
Consider the unintended consequences	.22
Develop a course of action	.94
Implement chosen course of action	7.43*
Evaluate the outcome	.29

*Significant at the 0.05 level.

Superintendents with training that they could identify as being

in the area of decision-making scored significantly more correct

responses on the implementation step than did the randomly selected

group. However, the null hypothesis was retained for the other five

strategies, and according to the criterion established in Chapter III,

the entire hypothesis was retained.

Summary

Analyses of the data in the areas of buffering, decision-making,

and thinking styles were presented in this chapter. Conclusions for

each of the six hypotheses were drawn. A discussion of these findings will be conducted in the following chapter.

CHAPTER V. SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Summary

The purpose of this study was to examine the decision-making processes used by public school superintendents. The study was exploratory in nature and focused specifically on the linkage of decision-making, buffering, and thinking styles in exemplary superintendents.

A pool of thirty (30) exemplary superintendents was created through the use of a statewide reputational survey. An equal-sized group of randomly selected superintendents served as a control and comparison group. It was interesting to note that although both groups received the same treatment, the exemplary group responded more quickly than the randomly selected group. Both groups were asked to respond to a researcher-developed questionnaire consisting of ten problematic situations calling for the respondent to establish a priority ranking for each situation and to rank order four possible responses. Situations two and nine also asked the respondent to rank order six strategies they may have employed while studying the situation. These six strategies were actually the steps of the rational decision-making process and were disguised to prevent recognition. The Gregorc Style Delineator was used to identify the respondent's primary thinking style from one of the following possibilities: Concrete/Sequential, Abstract/Sequential, Concrete/Random, or Abstract/Random. The construction and validation of the researcher-developed questionnaire and the methods and procedures used with both instruments were discussed in Chapter III. The analyses of the data were described in Chapter IV.

Analyses of the data yielded these findings:

(1) A comparison of the way buffering responses were rank ordered by exemplary and randomly selected superintendents yielded no significant differences.

(2) There is no significant relationship between buffering scores and priority rankings for the randomly selected group or the combined group. However, in the exemplary group, there was a significant relationship between the buffering score and the priority ranking on situation number one.

(3) The exemplary superintendents scored significantly more correct responses on steps three, consider the unintended consequences, and four, develop a course of action, of the rational decision-making process on situation number two. However, there were no significant differences between the exemplary and randomly selected groups observed on situation number nine.

(4) The Concrete/Sequential thinking style was the dominant thinking style for 55 percent of the respondents and was observed three times more frequently than any other style. However, the respondents with the Concrete/Random thinking style were slightly more proficient in the decision-making process.

(5) The descriptive statistics compiled to examine where the weaknesses of the decision-making process existed revealed that the implementation step is the weakest strategy in the rational decision-making process.

(6) Superintendents with training that they recognized as being in

the area of decision-making scored significantly more correct responses on the implementation step.

Limitations

There were three limitations or circumstances that may have had an effect on this study. The superintendents identified as exemplary represent the larger schools in each area. The randomly selected superintendents were more equally distributed throughout the size range for the state of Iowa. This may have been the result of respondents being impressed by the fact that a colleague is in a bigger school, or it may illustrate the theory that the more skilled administrators seek larger schools and larger challenges.

The range of the priority rankings on the researcher-developed questionnaire was small. Respondents had a one to five Likert-type scale on which to respond, and the situations were developed to vary along that scale. However, the low mean priority ranking was 3.15 and the high was 4.4. This small range made it difficult to determine the effect of the priority ranking on the buffering and proficiency scores.

Situations two and nine required the participant to rank order the strategies they may have used on a basis of one to six. These strategies were actually the steps of the decision-making process tailored to fit the situation and disguised to prevent recognition due to the terminology used. Although the expert panel was able to correctly order the couched versions, the lack of consistency between the way the respondents performed on situations two and nine indicate that the strategies may have been disguised too well.

Discussion

The primary areas of investigation in this study were decision-making, buffering, and thinking styles.

Hypotheses three, five, and six focused on the decision-making process. The analyses performed for Hypothesis three indicated that decision-making, as practiced by superintendents, is neither well-developed nor a process-oriented operation. No one correctly ordered each of the strategies they used, there was no consistency in the way similar strategies were utilized in situations two and nine, and more than 40 percent failed to employ any of the strategies in their prescribed order. A partial defense of this poor performance is afforded by Cross's conclusions (25, p. 158) that the decision-making pace of educators is so frantic that it would be impossible to employ a multiple step process to solve each problem situation. It was interesting to note that the Concrete/Random style superintendent displayed the best decision-making proficiency.

The analyses for Hypothesis five revealed that strategy five, the implementation step, was used in the correct order less frequently than any of the other strategies. This was not the expected result for this hypothesis. It was anticipated that strategy three, consider the unintended consequences, would be the weakest part of the process. However, since the implementation step was the weakest part, it could be assumed that once an alternative has been selected and a course of action developed, the decision-maker considers the problem solved and begins to focus on the next problem without implementing the solution for the original problem.

The analyses for Hypothesis six disclosed that training which can

be specifically recognized as training in decision-making significantly improves the proficiency shown on the implementation step. Unfortunately, only slightly more than 50 percent of the respondents had received training that they recognized as dealing specifically with decision-making. If the sample used in this study is representative of the total population, then adjustments are needed in the content of training programs and in-service programs offered to superintendents.

Hypotheses one and two examined the relationship of priority rankings and buffering scores as they were employed by the exemplary and randomly selected groups. The analyses conducted to test the hypotheses revealed no significant difference in the buffering scores between the exemplary and randomly selected groups. The only significant result was the relationship between the priority ranking and the buffering score for the exemplary superintendents on situation number one. That relationship yielded a strong enough positive correlation to be statistically significant. However, a positive correlation indicated that the higher the priority score was, the higher the buffering score. This was the opposite of the expected result. It was anticipated that the higher the priority rank, an indication of the importance of the situation, the lower the buffering score would be, an indication that buffering responses were chosen before direct answer responses.

Examination of the direction of the correlations in Table 5 revealed that for the exemplary group, only two of the correlations were negative compared to six negative correlations in the randomly selected group. It was speculated that the superintendents in the exemplary group were more

self-assured, enjoyed higher levels of public support and acceptance, and were more prepared to provide direct answers. However, the superintendents in the randomly selected group relied more on the buffering responses in high priority situations to allow them time to gain support and acceptance for their final decision.

The Concrete/Sequential style emerged as the predominant thinking style of the superintendents examined in this study. Gregorc's definition of the way a Concrete/Sequential views his world is certainly characteristic of the way superintendents approach their jobs. "The dominant Concrete/Sequential views and approaches experiences in his world or reality in an ordered, sequential, rectilinear, and one-dimensional manner" (38, p. 19). There were no significant differences in the thinking style scores between the randomly selected and exemplary groups and although no particular thinking style emerged as a significant indicator of decision-making proficiency, those with the Concrete/Random style did perform slightly better than the others.

Although thinking style did not indicate proficiency in decision-making, the Gregorc Style Delineator could be used to screen potential administrators. Individuals whose thinking styles deviated from the predominant Concrete/Sequential style might be more thoroughly screened and counseled before admitting them to a graduate program in school administration or hiring them for an administrative position.

Recommendations for Further Study

This study established some linkage between buffering, priority ranking, and exemplary superintendents, and it identified a thinking/

;tyle that was prevalent among a large portion of the superin-

:xamined. The study left some questions unanswered, some ques-

:ially answered, and brought into focus some related issues, all

>rovide potential areas for future research.

: interested in doing research on decision-making or the re-

.s investigated in this study should consider the following:

cate this study with the following modifications:

equire that all six decision-making strategies be ordered.

nform the respondents that the strategies were actually steps

n the decision-making process.

evelop situations that provided a greater variance in the

riority rankings.

cate this study with only level two or level three buffers pro-

as possible solutions and with situations having a greater

nce in priority rankings. The investigation should focus on

ring the use of level two and level three buffers in situations

similar priority rankings.

tigate the accuracy of the reputational survey technique which

sed to identify the exemplary superintendents and develop a

le of indicators that could be used to identify administrators

exemplary potential.

(76) felt that managers trained in the 1960s were less

tive because of attitudes held toward management during that

d. Examine the decision-making proficiency of educational

istrators trained during this same time period to determine

if Miner's theory also applies to educational leaders.

Concluding Statement

The fact that decision-making has been identified as one of the central functions of any administrative organization, coupled with the frantic pace at which educators encounter problems and are required to make decisions would seem to mandate the need for all administrators to possess a systematic approach to problem-solving. That approach should include accurate problem definition, a process for buffering and filtering situations according to importance, and a procedure for the implementation and evaluation of the decision reached. Unfortunately, only slightly over 50 percent of the superintendents examined had received any training that they recognized as relating to decision-making. This indicates a definite need for training institutions to be more specific in teaching the rational decision-making process, to provide more emphasis on its use and application, and to make in-service opportunities available to current practitioners.

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ACKNOWLEDGMENTS

APPENDIX A: GREGORC STYLE DELINEATOR (EXCERPTED)

Scoring

1. **Add Across.** Add across the "a." row of words in the first five sets. Put that total in the top "a" column box. Do the same for the "b", "c" and "d" rows of the first set. Next, do the last group of five sets, putting the row totals in the bottom group of boxes.

Example

a. $\boxed{4} + \boxed{4} + \boxed{1} + \boxed{3} + \boxed{2}$ $\boxed{14}$ a

a. $\boxed{1} + \boxed{3} + \boxed{4} + \boxed{2} + \boxed{1}$ $\boxed{11}$

Total of above $\boxed{25}$ CS

2. **Add Down.** Add the top and bottom box in each scoring column to get the total for that column.

3. **Check.** If your combined total scores of CS (a), AS (b), AR (c) and CR (d) is greater or less than 100, please recheck your addition. All four columns should total exactly 100.

Graphing

Use the Style Profile below to graph your scores.

1. On the verticle axis leading toward 12 o'clock (Concrete Sequential) place a large dot by the number which corresponds to your total CS (col.a) score.

Example:
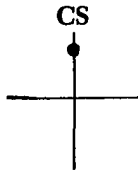
2. On the horizontal axis leading toward 3 o'clock (Abstract Sequential), place a large dot by the number which corresponds to your total AS (col.b) score.

Example:
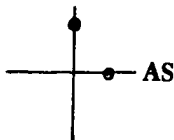
3. On the vertical axis leading toward 6 o'clock (Abstract Random) place a large dot by the number which corresponds to your total AR (col.c) score.

Example:
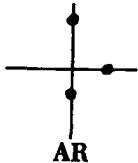
4. On the horizontal axis leading toward 9 o'clock (Concrete Random) place a large dot by the number which corresponds to your total CR (col.d) score.

Example:
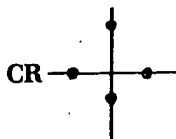
5. Now join the dots with straight lines to form a four-sided figure.

Example:
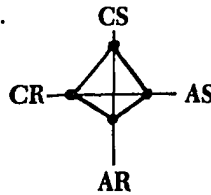
You now have a graphic representation of your dominate (27-40 points), intermediate (16-26 points) and low (10-15 points) style, or "mediation," channels.

— STYLE PROFILE —

CS
CONCRETE SEQUENTIAL

AR
ABSTRACT RANDOM
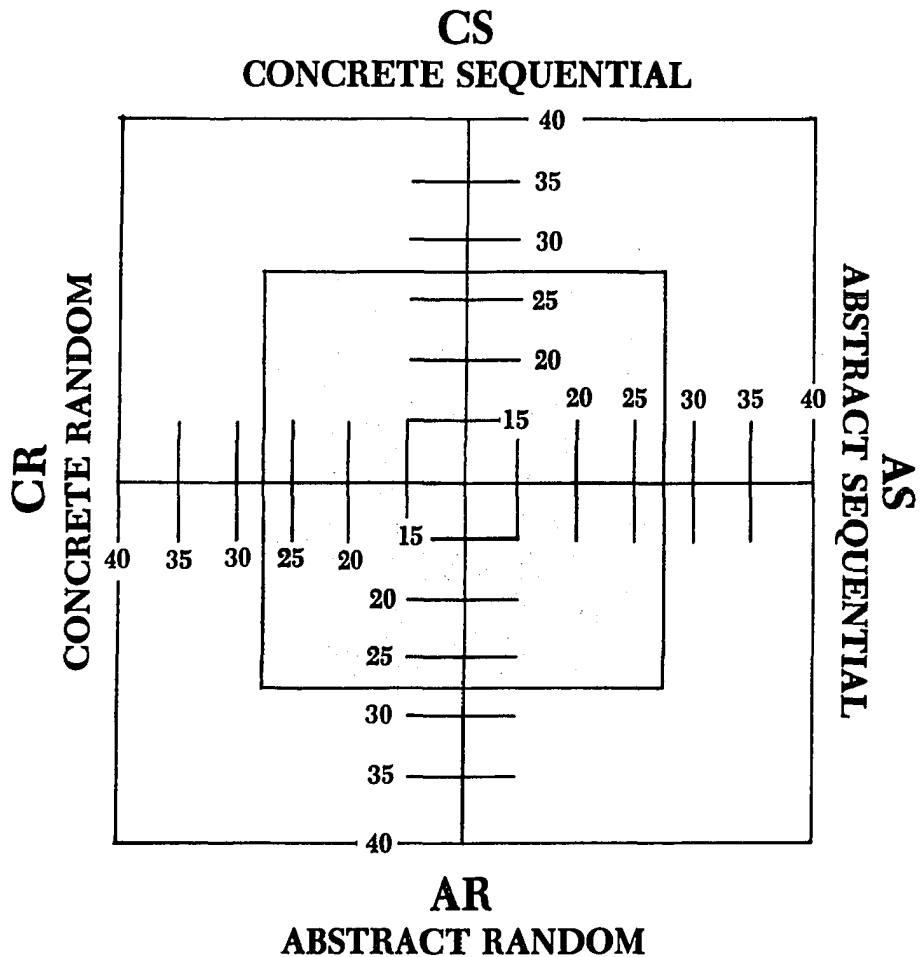
Directions

Before starting with the word matrix on the left, carefully read all seven of the following directions and suggestions:

1. **Reference Point.** You must assess the relative value of the words in each group using your SELF as a reference point; that is, who you are deep down. NOT who you are at home, at work, at school or who you would like to be or feel you ought to be. THE REAL YOU MUST BE THE REFERENCE POINT.

2. **Words.** The words used in the *Gregorc Style Delineator* matrix are not parallel in construction nor are they all adjectives or all nouns. This was done on purpose. Just react to the words as they are presented.*

Example

3. **Rank.** Rank in order the ten sets of four words. Put a "4" in the box above the word in each set which is the best and most powerful descriptor of your SELF. Give a "3" to the word which is the next most like you, a "2" to the next and a "1" to the word which is the least descriptive of your SELF. Each word in a set must have a ranking of 4, 3, 2 or 1. No two words in a set can have the same rank.

a. | 4 |
sun

b. | 2 |
moon

c. | 3 |
stars

d. | 1 |
clouds

4 = MOST descriptive of you
1 = LEAST descriptive of you

4. **React.** To rank the words in a set, react to your *first impression*. There are no "right" or "wrong" answers. The real, deep-down you is best revealed through a first impression. Go with it. Analyzing each group will obscure the qualities of SELF sought by the Delineator.

5. **Proceed.** Continue to rank all ten vertical columns of words, one set at a time.

6. **Time.** Recommended time for word ranking: 4 minutes.

7. **Next.** After all ten sets have been ranked, lift this flap.

---

*For an explanation on how and why these words were chosen, see the "Development" section of *An Adult's Guide to Style.*

APPENDIX B: EXEMPLARY SUPERINTENDENT IDENTIFICATION MATERIALS

College of Education
Educational Administration
N229 Quadrangle
Ames, Iowa 50011

IOWA STATE
UNIVERSITY

Telephone 515-294-5450

January 14, 1983

Dear

I am in the initial stages of a research project which will produce data
that when assimilated will provide information to assist each of us in
refining our administrative skills. The project involves identifying the
exemplary superintendents throughout the state and making some comparisons
between them and a random sampling of superintendents.

Since your leadership ability has already been recognized by your peers
when they selected you chairperson of your AEA, I need your support and
assistance in identifying the exemplary superintendents within your area.
To accomplish this, I am asking that you distribute the materials in the
packet to each superintendent at your next AEA meeting, collect them as
instructed, and return them to me in the envelope provided.

If you have any questions about the materials or the process, please con-
tact me immediately.

Sincerely,

D. A. Haggard
402 Gerald
Madrid, Iowa 50156
(515) 795-3240 (Office Phone)
(515) 795-2541 (Home Phone)

Enclosure

IOWA STATE
UNIVERSITY

January 14, 1983

Dear Colleague,
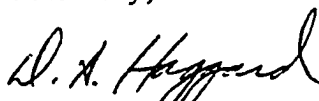
I am seeking your assistance in the initial stages of a research project
intended to expand our knowledge in the field of educational administration.
The project involves identifying a sample of exemplary superintendents and
comparing their reactions to some in-basket situations with the reactions of
a random sampling of superintendents.

I need your assistance in identifying that pool of exemplary superintendents.
Attached to this letter is a list of the superintendents in your Area
Education Agency. Please select two superintendents, other than yourself,
whom you would consider exemplary. To avoid identifying individuals with a
singular strong suit consider the overall performance of the individual in
the areas of personnel, curriculum, collective bargaining, policymaking,
and planning. If you know of any exemplary superintendent who is not within
your AEA, please list them in the space provided.

When you have identified the two exemplary superintendents in your area place
the identification sheet in the attached envelope and deposit it in the
container provided by your AEA chairperson. This step will assure the con-
fidentiality of your responses.

Thank you for assisting in the identification of these exemplary superintendents.

Sincerely,

D. A. Haggard
402 Gerald
Madrid, Iowa 50156
(515) 795-3240 (Office Phone)
(515) 795-2541 (Home Phone)

Enclosures

APPENDIX C: RESEARCHER-DEVELOPED QUESTIONNAIRE

DIRECTIONS FOR COMPLETING THE ENCLOSED QUESTIONNAIRE

The necessary demographic information and two instruments make up the data collections portion of this study. The demographic data are important to the study for establishing profiles of the participants but will be carefully guarded to insure confidentiality. Each participant has been assigned a coded number for follow-up purposes, but at no point in the published works will your responses be identifiable.

Gregorc's Style Delineator is a short instrument designed to identify your thinking style. The accompanying instructions are sufficient to complete the instrument successfully. If you would like your style profile returned to you with the necessary interpretive information, please indicate that on the card attached to the instrument.

The second instrument is made up of ten situations. Each situation is followed by a Likert-type scale on which you are asked to consider the importance of the situation and indicate the priority level that you would assign to the situation by circling your response.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

For each of the ten situations, four possible solutions are provided. While there are other reasonable choices, you are asked to respond only to the solutions provided. Read each of the possible solutions and then rank order them. On the blank provided with each solution, please indicate your first choice with a number one (1), your second choice with a number two (2), your third choice with a number three (3), and your fourth choice with a number four (4).

Each situation has been developed to provide you with as much of the needed information as possible. Although you may still have questions about some of the situations, you are asked to respond according to the information that you have been provided.

Two of the situations are also followed by several short questions or statements. In each of those cases, you are given instructions for completing that segment.

If you have questions on any portion of this project, please contact me immediately at the following address and/or phone:

David A. Haggard
402 Gerald
Madrid, Iowa 50156
515-795-2541 (home)
515-795-3240 (office)

DEMOGRAPHIC INFORMATION

The following information is being gathered to assist in developing a profile of the participants in this study.

Please circle the response that best answers each of the following questions:

1. How many years experience as an educational administrator do you have?

   A. 0-5 years; B. 6-10 years; C. 11-15 years; D. 15+ years.

2. How many years experience as a superintendent do you have?

   A. 0-5 years; B. 6-10 years; C. 11-15 years; D. 15+ years.

3. How many years have you been in your current position?

   A. 0-5 years; B. 6-10 years; C. 11-15 years; D. 15+ years.

4. What is the size of the school you are employed in? _____

5. What is the highest degree you hold?

   A. Bachelor's degree; B. Master's Degree; C. Specialist; D. Doctorate

6. When did you complete your highest degree? _____

7. Have you received any training in decision-making? YES NO

(IF YES)

8. What form did that training take?

   A. College class   B. Seminar or workshop   C. Professional Reading
      # of classes___   Hours of workshop___   Extent of Reading___

   D. Other _____

9. How recent was that training?

   A. 0-1 years ago   B. 2-3 years ago

   C. 4-5 years ago   D. 5+ years

The high school principal has just left your office following an 8:00 a.m. staff meeting. You observed his behavior as being a little unusual, and you are almost certain that you detected the odor of liquor on his breath. The principal has a good reputation in the district and has always received high marks on the annual administrative evaluations. However, when you review his personnel folder, you notice that Monday and Friday absences have increased and that you have recently received a number of inquiries from parents and teachers about the way he has been doing his job. You suspect that he may be drinking before he comes to work or even on the job, and it appears that his absences may be alcohol-related. You are not aware of any incidents in the principal's life that may have been a catalyst for this type of behavior.

The situation presents no immediate threat to you or your position at this stage. In light of the facts at your disposal, please circle the priority level you would assign to this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each solution and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

As superintendent, you should:

_____ Directly confront the principal with your suspicions and your intent to terminate if your suspicions are confirmed.

_____ Ignore the situation since you have no proof.

_____ Exercise your option of requiring an employee to see a specific physician to confirm and verify any absences.

_____ Take a counseling approach. Visit with the principal about the absences, complaints, and reasons behind them. Help plan a non-threatening course of corrective action.

The enrollment and budget predictions for your district have indicated that severe budget cuts will be needed in the future. Acting on your recommendation, the Board has created an advisory committee and charged them with the task of finding possible solutions to the financial difficulties that seem imminent.

The chairperson of the advisory committee has just delivered a copy of the report which will be presented at the next board meeting. The committee has prioritized a list of cost-cutting measures, and you are in agreement that staff reduction is the only way to realize a dollar savings of the amount necessary to balance the budget. However, you and the advisory group strongly disagree on the positions to be eliminated. Their recommendations are to reduce central office and building level administrators from a staff that you already consider to be at minimum size.

This situation has become extremely threatening to you. The committee was created according to your recommendations but you are in disagreement with their suggestions, and a real power struggle with the Board is shaping up.

Please circle the priority level you would assign this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each solution and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

_____ Thank the committee for their time and effort in preparing their recommendations. Set a future meeting with the committee where you will discuss the recommendations and express any concerns you may have.

_____ Proceed with staff reduction in the way you perceive to be best for the district.

_____ You should follow the advisory group's recommendations since they are the voice of the community.

_____ Present both plans to the Board and let them decide.

Please consider the following strategies that you may have employed in reaching a solution to the previous situation. Arrange each of the following strategies that you used in numerical order (one (1) being the first). If you did not use a strategy, do not number it.

_____ Discuss your decision with some members of the community's power structure to determine the degree of acceptance your action is receiving.

_____ Call in your staff and search for the various ways in which the available alternatives might be interpreted.

_____ Review the situation and decide what went wrong in the situation.

_____ Hold a planning session with your administrative staff to develop a plan of attack.

_____ Coordinate the efforts of your staff, seek support for your plan, and follow through.

_____ Hold a "brain-storming" session to discuss all the possible ways of solving the problem.

You are the superintendent of a suburban school district with an enrollment of approximately 1500 students. One of the custodians has reported to the high school principal that he has been finding empty whiskey bottles on the school grounds over the last two weeks. Although there is no evidence that students are responsible, the principal (unknown to you) issued a stern warning to the student body and stated that any student caught drinking on school property would automatically be expelled. This penalty exceeds the action prescribed in the Board-approved handbook. The policy as accepted by the Board calls for a five-day suspension. The issue was suddenly thrust into your lap when a senior honor student who attended a pregraduation party became intoxicated and wandered onto the athletic field with a liquor bottle where she was apprehended by a security guard. The high school principal has asked you to support him on this matter and recommend to the Board that the student be expelled.

The local daily paper has picked up on this situation, and the public is anxiously awaiting your recommendation and the Board's action. The principal is highly respected in the district and has shown outstanding judgment in the past. The student's family enjoys a good reputation in the district, and the student has been accepted with honors to one of the state institutions. There is a lot at stake in this issue. Please circle the priority level you would assign to this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each situation and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

As superintendent, you should:

_____ Stand behind the principal and recommend the student's expulsion.

_____ Have the principal suspend the student as required by the district's policy regarding student use of alcohol on school grounds and turn the matter over to legal authorities as a trespass case.

_____ Instruct the principal to suspend the student and then warn the principal against altering approved policy without following proper procedures.

_____ Arrange for a conference involving you, the student, the parents, and the principal.

The very influential parents of a graduating senior have come to you with a complaint about the poor overall quality of education being offered in the district. The parents' outburst was triggered by the notification that their son had been refused admittance to the local university. The reasons cited were low test scores and poor high school grades.

You have now reviewed the student's file and find that the student is of marginal ability and has had to work hard to graduate from the basic program. It is unrealistic to expect the student to achieve academic success at the university level.

You are particularly concerned about this matter because the parents involved have direct lines to the local media and could provide a lot of adverse publicity about your district.

Please circle the priority level you would assign to this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each solution and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

_____ Inform the parents, as factually as possible, of their son's academic record and why he failed to qualify for admission to this particular university.

_____ Offer to write a letter or make a telephone call to the university admissions office and try to influence them to accept the student.

_____ Meet with the parents and counselor to discuss their son's success potential and his strength areas.

_____ Listen attentively to the parents and allow them to talk it out. If the opportunity arises, suggest some alternatives they may wish to pursue.

Math scores in your district have been on the decline, and you have formed a study committee to evaluate the situation and suggest possible remedies. The group is made up of all the secondary mathematics teachers and elementary representatives from each level. They have been instructed to look at the K-12 articulation of the program and the emphasis placed on the various skills.

The group has completed its work after a year of study and has recommended that the district adopt a specific mathematics program. The program is relatively new and is expensive. You have studied the program and you are not completely satisfied that the program provides what your district needs. The Board is willing to commit itself to a new program but not without your recommendation.

The Board has been persistent in directing you to do whatever necessary to improve the math program, and you know this program change will have a major effect on the curriculum. Please circle the priority rating for this situation and then place the solutions in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

As superintendent, you should:

_____ Accept the committee's recommendations and ask the Board to commit the necessary dollars to this program.

_____ Reject the committee's recommendations and ask them to develop alternatives.

_____ Recommend to the Board that the program be implemented on a limited basis to measure its effectiveness.

_____ Delay a final decision and request that the committee provide further justification for the program.

You are the superintendent of a district which employs several people in central office positions. Last year one of the central office administrators, the business manager, reached retirement age. The board policy regarding retirement states that retirement is mandatory for all district employees at age 70 unless they are retained by special Board action. As its executive officer, the Board directed you to notify the employee that her services would not be further needed and directed you to seek a replacement. You verbally notified the employee of the Board's wishes, and on your recommendation, the Board hired a replacement for the retiring administrator.

You assumed that all was well until the beginning of the school year when both the new business manager and the old one reported to work. The "former" business manager persists in staying on in her position and shows up at the office daily. Needless to say, the situation is untenable. Other circumstances further complicate the situation. The administrator is a former high school principal in the district and enjoys great popularity within the community. In addition, she has indicated that she will resist any effort to force her into retirement.

No paychecks have been issued to the administrator this year, but her attorney is coming to the next board meeting to demand that she be paid for "services rendered."

The Board is extremely concerned about the way this problem has emerged from a seemingly routine matter. They feel you used poor judgment in verbally notifying the employee, and failure to resolve the situation to their satisfaction could jeopardize your job.

Please circle the priority level you would assign to this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each solution and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

_____ In light of the persistence being shown by the "former" business manager and her attorney, your recommendation to the Board should be for them to seek legal counsel.

_____ You should delay any decisions or recommendations until after the Board meeting.

_____ You should consider the time spent to this point as a training period for the new business manager. Formally review the mandatory retirement policy with the old business manager, and then pay her for training the new business manager.

_____ You should explain to the old business manager that her services are not needed, that she will not be paid, and if she desires involvement, she should check into the district's volunteer program.

You are the superintendent of a large, rural school district. Because of the geographic size of your district, you provide transportation for a large percentage of your students. The state law says that all students who live more than 2.5 miles from their school must be provided transportation. Your Board, however, has adopted a written policy that all students who live more than 2 miles from their school qualify for bus transportation.

Many high school students ride the bus one day and drive to school the next. A number of high school parents have become quite irate, claiming that the 2 mile limit is arbitrary and discriminatory. They demand that, since there are always empty seats, their children should be allowed to ride the bus to and from school. Most of these parents live just within the 2 mile limit.

This situation poses no specific threat to you or your position, but it does need your attention. Circle the priority you would assign to this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each solution and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

_____ The Board developed the policy and it is your job to enforce it. Refuse the request of the parents residing inside the two (2) mile limit.

_____ Since there are seats available, arrange pickup points to allow all students the opportunity to ride the bus.

_____ Request that your Board alter the boundaries for bus transportation to coincide with state law.

_____ You should ignore the complaints on the grounds that they have no justification.

Two years ago, you recruited an experienced language teacher. She was hired by the Board at a top salary. Her acceptance of the position was based on your verbal promise that she would be appointed as chairperson of the department as soon as the position was available. Although there was no written agreement, the substance of your promise has become common knowledge among staff and citizens. The department chair position is now open, and everyone, including the teacher in question, assumes that you will follow through on your promise. You, on the other hand, have been disappointed in the teacher's leadership qualities. On several occasions, she has neglected various responsibilities assigned to her. Meanwhile, a new, less-experienced teacher in the department has demonstrated leadership abilities and would, in your opinion, make a good department chairperson.

Your job is not directly on the line in this case, but your reputation is. Failure to fulfill your promise will result in employees questioning your word on other issues, and selecting the wrong chairperson will be educationally damaging.

Please circle the priority level that you would assign to this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each solution and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

_____ In recruiting the teacher, you made a promise that the teacher counted on when she accepted the position. You must keep your word and appoint her chairperson.

_____ Delay your situation as long as possible. During this delay, document any incidents that would support you in not naming the more experienced language teacher.

_____ You should evaluate each candidate's performance and capabilities and on that basis recommend the person you feel is most qualified for the position.

_____ Since your expectations did not prove out, you should allow the members of the department to select their own chairperson.

Your school district currently operates a 9-12 high school out of 175 students in a building designed for 300. The junior high and elementary are housed in another building, and numerous staff members are shared between the buildings. The time spent traveling between buildings reduces the actual teaching time and limits the flexibility desired in building a schedule. By combining the junior high and high school, a staff savings of three (3) to five (5) teachers can be realized; it would be feasible to eliminate an administrative position, and a section of the older building would be closed off, resulting in a savings of energy and custodial expenses.

The administration, staff, and school board have worked cooperatively in planning this change and are united in the idea that quality education will still be the end product. However, there is a large segment of the public being very vocal about their reluctance to accept placing the junior high with the high school. The basis for their reluctance seems to be the idea of placing such a wide age span of students together. They feel the high school age student might harass and corrupt the junior high age students.

Please circle the priority level you would assign to this situation.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

Read each solution and then place them in rank order 1-4 with one (1) being your first choice and four (4) being your last choice.

_____ You should inform the dissenters about the Board's policy on handling complaints and/or requests for reconsideration and provide them with the forms necessary to initiate the process.

_____ Since it is their school, you should yield to the sentiment of the public and look for other ways to save the needed money.

_____ Stay with your initial recommendations and push this change through. It is the most economical plan available, and it maintains high educational standards.

_____ You should establish a study committee to look at the feasibility of such a move, being sure to include visits to schools effectively employing this structure.

Please consider the following strategies that you may have employed in reaching a solution to the previous situation. Arrange each of the following strategies that you used in numerical order (one (1) being the first).

If you did not use a strategy, do not number it.

_____ In your study committee, discuss how close the committee recommendations come to creating an ideal situation.

_____ Have the committee study each of the possible alternatives to determine how various groups might interpret any action taken.

_____ Discuss who might be involved in solving the problem, where more information might be gathered, what alternatives are reasonable, and what a reasonable timeline might be.

_____ Determine if the location of the high school, the age grouping, or the environment was the most objectionable to the public.

_____ Develop a step-by-step approach and examine what assurances must be made to gain acceptance of the decision.

_____ Follow the step-by-step approach developed for accomplishing the committee's goals.

The teaching staff in your district, as a whole, is way above average. You do have a couple of weak teachers whose educational short-comings are being examined, but the only general staff weakness is in the observance of the working day as established by the master contract. A few teachers are habitually late, and a few are always finding reasons to leave early. In light of the fact that negotiations have always been handled in a friendly, cooperative manner without outside intervention, you have allowed the principals to use their discretion in enforcing the contract terms for the work day. They have enforced this portion of the contract rather loosely to this point.

As mentioned earlier, there are a few weak teachers, and you have had the principals putting some pressure on them to correct their educational shortcomings. These same teachers are now creating some turbulence because they are being pressured to improve their weaknesses but nothing is being done to enforce the master contract's length of day requirements more strictly.

Please circle the priority you would assign to this situation and then rank order the solutions 1-4 with one (1) being your first choice and four (4) being your last choice.

5	4	3	2	1
Highest Priority	High Priority	Medium Priority	Low Priority	Lowest Priority

As superintendent, you should:

_____ Ignore the weak teachers' complaints because the late arrivals or early departures don't affect the educational quality, and in a way it is a reward for a job well done.

_____ Begin enforcing the master contract to its letter with no exception.

_____ Explain the situation to the teachers who like to shorten the day and ask for their cooperation.

_____ Explain to the weak teachers that an occasional late arrival or early departure does not significantly affect the quality of education the way poor instructional technique or poor discipline does.

Thank you for completing the various sections of this question-
naire. Your participation will help identify the qualities of
exemplary superintendents and how they solve problems.

MODIFIED INFORMED CONSENT FOR HUMAN SUBJECTS

This study will examine the process of decision-making and styles of thinking/learning as they are possessed by superintendents in the state of Iowa. As a participant in this study, you will be asked to respond to two instruments, the Gregorc Style Delineator and a set of in-basket situations developed by this investigator. The instruments pose no physical or mental risks to you as a participant and every possible effort will be made to insure the confidentiality of your responses.

The data gathered in this study have the potential of yielding valuable information for educational practitioners. It has implications for training, screening, evaluating, and inservicing educational decision-makers as well as opening up new decision-making concepts for further research.

If you have any questions about the instruments, the process, or if you would like the results from the Gregorc Style Delineator, please feel free to contact this project's principal investigator at the address or phone provided below.

Should you elect not to participate in this study, please return the materials in the enclosed stamped envelope.

MAIL TO: D. A. Haggard
402 Gerald
Madrid, Iowa 50156

(515) 795-2541 (home)
(515) 795-3240 (office)

APPENDIX D: CRITERIA USED BY THE EXPERT PANEL TO

EVALUATE THE QUESTIONNAIRE

<u>INSTRUCTIONS TO THE EXPERT PANEL</u>

Thank you for agreeing to service on this expert panel. The panel has been developed to help establish the validity of an instrument designed to collect data on decision-making.

Enclosed you will find a copy of the instrument which consists of directions, requests for demographic data, ten situations (each with four possible responses), and the implied consent statement. You are asked to make a judgment on the quality of the directions and then respond to a series of questions about each situation. To do that, the following definitions will be important:

Direct Answer: The end product of the decision-making process. No attempts are made to shift responsibility, no delay or avoidance tactics are employed, and the chief goal is to provide a final solution.

Buffering:
  1. Employment of a process or procedure, established by policy or practice, to handle common and recurring situations.

  2. A planned and prioritized means of selectively processing information to delay action or shift responsibility for the situation.

  3. Buffering will commonly take one of these five forms:

   <u>No-jurisdiction</u> "...one way to limit responding to sources of environmental tension is to disclaim authority to resolve the issue."

   <u>Strategic Catharsis</u> "A second strategy is to allow complainers to "talk it out". If complainers are given a way of "letting off steam", their problem seems smaller and they do not pursue it."

   <u>Strategic Stalling</u> "The problem is given such a low priority for action that it is never really acted upon."

   <u>Ignoring Turbulence</u> "In order for an environment to be turbulent and require decision-making activity to resolve environmental problems, school personnel must define and then respond to the environment as turbulent. That is, there is no need to act to resolve problems if the situation is not defined as problematic."

   <u>Protective Blocking</u> "Blocking as a buffering tactic is an organizational attempt to emphasize the point that there are some issues in which school personnel and school personnel alone maintain decisional jurisdiction."

STEP #I

    Please answer the following questions as they apply to each of the ten situations.

Situation (1)

    a. Is this situation representative of the type of problems a superintendent might encounter? _____ YES _____ NO

COMMENTS: .

    b. Are the solutions provided viable alternatives for solving the problems? _____ YES _____ NO

COMMENTS:

    c. Would you provide another solution? _____ YES _____ NO

       If yes, what would the solution be?

    d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

      _____ 1 _____ 2 _____ 3 _____ 4

Situation (2)

    a. Is this situation representative of the type of problems a superintendent might encounter? _____ YES _____ NO

COMMENTS:

    b. Are the solutions provided viable alternatives for solving the problems? _____ YES _____ NO

COMMENTS:

    c. Would you provide another solution? _____ YES _____ NO

       If yes, what would the solution be?

    d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

      _____ 1 _____ 2 _____ 3 _____ 4

Situation (2) continued

e. In this situation, the respondent is asked to place six strate-
gies in the numerical order of use. These six strategies are
the six steps commonly considered the rational decision-making
process. They have been disguised by tailoring them to this
particular situation. Please match the steps a-f with the
appropriate strategy 1-6. Example: [Number 3 is 'a' (define
the problem). Please complete the rest in the same manner.]

STRAT-
EGIES

_____ 1. Discuss your decision with some members of the com-
munity's power structure to determine the degree of
acceptance your action is receiving.

_____ 2. Call in your staff and search for the various ways in
which the available alternatives might be interpreted.

_a_ 3. Review the situation and decide what went wrong in
this situation.

_____ 4. Hold a planning session with your administrative staff
to develop a plan of attack.

_____ 5. Coordinate the efforts of your staff, seek support for
your plan, and follow through.

_____ 6. Hold a "brain-storming" session to discuss all the
possible ways of solving this problem.

STEPS

a. Define the problem.
b. Consider the alternatives.
c. Consider the unintended consequences.
d. Develop a course of action.
e. Implement the course of action.
f. Evaluate the outcome.

Situation (3)

a. Is this situation representative of the type of problems a
superintendent might encounter? _____ YES _____ NO

COMMENTS:

b. Are the solutions provided viable alternatives for solving
the problem? _____ YES _____ NO

COMMENTS:

Situation (3) continued

    c. Would you include another solution? ____ YES ____ NO

        If yes, what would the solution be?

    d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

        ____ 1   ____ 2   ____ 3   ____ 4

Situation (4)

    a. Is this situation representative of the type of problems a superintendent might encounter? ____ YES ____ NO

COMMENTS:

    b. Are the solutions provided viable alternatives for solving the problem? ____ YES ____ NO

COMMENTS:

    c. Would you include another solution? ____ YES ____ NO

        If yes, what would the solution be?

    d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

        ____ 1   ____ 2   ____ 3   ____ 4

Situation (5)

    a. Is this situation representative of the type of problems a superintendent might encounter? ____ YES ____ NO

COMMENTS:

    b. Are the solutions provided viable alternatives for solving the problem? ____ YES ____ NO

COMMENTS:

Situation (5) continued

      c. Would you include another solution? ____ YES ____ NO

          If yes, what would the solution be?

      d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

          ____ 1   ____ 2   ____ 3   ____ 4

Situation (6)

      a. Is this situation representative of the type of problems a superintendent might encounter? ____ YES ____ NO

COMMENTS:

      b. Are the solutions provided viable alternatives for solving the problem? ____ YES ____ NO

COMMENTS:

      c. Would you include another solution? ____ YES ____ NO

          If yes, what would the solution be?

      d. Asume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

          ____ 1   ____ 2   ____ 3   ____ 4

Situation (7)

      a. Is this situation representative of the type of problems a superintendent might encounter? ____ YES ____ NO

COMMENTS:

      b. Are the solutions provided viable alternatives for solving the problem? ____ YES ____ NO

COMMENTS:

Situation (7) continued

    c. Would you include another solution? ____ YES ____ NO

       If yes, what would the solution be?

    d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

       ____ 1   ____ 2   ____ 3   ____ 4

Situation (8)

    a. Is this situation representative of the type of problems a superintendent might encounter? ____ YES ____ NO

COMMENTS:

    b. Are the solutions provided viable alternatives for solving the problem? ____ YES ____ NO

COMMENTS:

    c. Would you include another solution? ____ YES ____ NO

       If yes, what would the solution be?

    d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

       ____ 1   ____ 2   ____ 3   ____ 4

Situation (9)

    a. Is this situation representative of the type of problems a superintendent might encounter? ____ YES ____ NO

COMMENTS:

    b. Are the solutions provided viable alternatives for solving the problem? ____ YES ____ NO

COMMENTS:

    c. Would you include another solution? ____ YES ____ NO

       If yes, what would the solution be?

Situation (9) continued

d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

_____ 1 _____ 2 _____ 3 _____ 4

e. In this situation, the respondent is asked to place six strategies in the numerical order of use. These six strategies are the six steps commonly considered the rational decision-making process. They have been disguised by tailoring them to this particular situation. Please match the steps a-f with the appropriate strategy 1-6. [Proceed as you did in situation number 2.]

_____ 1. In your study committee, discuss how close the committee recommendations come to creating an ideal situation.

_____ 2. Have the committee study each of the possible alternatives to determine how various groups might interpret any action taken.

_____ 3. Discuss who might be involved in solving the problem, where more information might be gathered, what alternatives are reasonable, and what a reasonable timeline might be.

_____ 4. Determine if the location of the high school, the age grouping, or the environment was the most objectionable to the public.

_____ 5. Develop a step-by-step approach and examine what assurances must be made to gain acceptance of the decision.

_____ 6. Follow the step-by-step approach developed for accomplishing the committee's goals.

a. Define the problem.
b. Consider the alternatives.
c. Consider the unintended consequences.
d. Develop a course of action.
e. Implement the course of action.
f. Evaluate the outcome.

Situation (10)

    a. Is this situation representative of the type of problems a superintendent might encounter? _____ YES _____ NO

COMMENTS:

    b. Are the solutions provided viable alternatives for solving the problem? _____ YES _____ NO

COMMENTS:

    c. Would you include another solution? _____ YES _____ NO

       If yes, what would the solution be?

    d. Assume that the four possible solutions were numbered 1, 2, 3, 4. By each solution you think is a direct answer, place a 'D' and for each solution that you think is a buffer, place a 'B'.

      _____ 1 _____ 2 _____ 3 _____ 4

STEP #II

Now that you have read the instructions, worked through the questionnaire, and reacted to several questions about each of the situations, please respond to these final questions.

1. Are the directions clear enough to allow the respondent to complete the questionnaire without further instructions? _____ YES _____ NO

If no, please make suggestions for improvement.

2. Are the situations sufficiently detailed that the respondent can be expected to accurately complete the questionnaire? _____ YES _____ NO

If no, please make suggestions.

3. Are the directions understandable? _____ YES _____ NO

If no, please make suggestions.

4. Is the readability of the questionnaire acceptable?
    _____ YES _____ NO

    If no, please make suggestions.

    I thank you for the time and effort you have expended in helping me at this stage in my research project. If I can ever reciprocate in any way, please feel free to contact me.

David A. Haggard
402 Gerald
Madrid, Iowa 50156

515-795-2541 (home)
515-795-3240 (office)

APPENDIX E: COVER LETTER ACCOMPANYING QUESTIONNAIRE

OWA STATE
UNIVERSITY

Dear

You may recall that at your February or March AEA superintendents'
meeting you were asked to respond to a survey instrument. You were asked
to identify two exemplary superintendents within your area and were given
the opportunity to write in the names of persons who stood out in your
mind as meeting the definition offered but were outside your AEA. Now
that a pool of persons has been identified, you are being asked to be a
further participant and respond to the enclosed situations and the Gregorc
Style Delineator.

The purpose of the study is to ascertain if exemplary superintendents,
as identified by their peers, have similarities in their thought processes
and in the manner in which they solve problems. If there are similarities,
then this knowledge can lead to some valuable information for educational
administration in terms of identifying those who should be encouraged to
prepare for positions in educational administration and in the job place-
ment of potential administrators.

Because of the nature of this study and the manner in which the
superintendents were selected, it is vital that we get a 100 per cent
response. Since you are a part of a rather small but select group, we
hope you will be a full partner in this endeavor.

Sincerely,

Ross A. Engel
Major Professor

D. A. Haggard
Researcher
Home Phone - (515) 795-2541
Work Phone - (515) 795-3240

APPENDIX F: FOLLOW-UP LETTER

November 9, 1983

Dear Superintendent:

        Thank you for agreeing to participate in this study. As I indi-
cated during my follow-up call on Tuesday, I am working with a small
select group and each response is important. I am closing in on a
100% return rate and I feel strongly that this would further add to
the validity of my study.

        I appreciate the busy schedule that school administrators experi-
ence, particularly during this time of year, and for that reason I
again offer my thanks for your cooperation. Please find the enclosed
materials and stamped envelope that I indicated I would send to you.
If you have any questions, please feel free to contact me.

Sincerely,

D. A. Haggard