Changes in Superintendents' Behaviors Following Feedback as Perceived by Their School Board Members and Principals

David Edwin Bartz

Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations

Part of the Educational Administration and Supervision Commons

Recommended Citation

https://scholarworks.wmich.edu/dissertations/2999
CHANGES IN SUPERINTENDENTS' BEHAVIORS FOLLOWING FEEDBACK AS PERCEIVED BY THEIR SCHOOL BOARD MEMBERS AND PRINCIPALS

by

David Edwin Bartz

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

Western Michigan University Kalamazoo, Michigan August 1972
ACKNOWLEDGEMENTS

Many people made the completion of this dissertation possible. My fellow Mott Interns gave me encouragement and assistance at appropriate times. Doctors Harold Boles, Theodore Ploughman, Robert Oswald, and Robert Kaufman gave me the needed direction and guidance to complete the study. I would especially like to thank Dr. Theodore Ploughman for serving as my chairman, and Dr. Robert Oswald for becoming a committee member at a most difficult time.

Dr. William Coats, previously Director of the Educator Feedback Center, allowed me to use the Administrator Image Questionnaire as the criterion measure. The financial assistance furnished by the Mott Foundation allowed me to devote sufficient time to complete the study. Needless to say, the study would not have been possible without the participation of superintendents, school board members, and principals.

Lastly, I would like to pay tribute to Marsha Bartz, a person who I feel truly believes in me.

David E. Bartz
INFORMATION TO USERS

This dissertation was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or “target” for pages apparently lacking from the document photographed is “Missing Page(s)”. If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in “sectioning” the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again – beginning below the first row and continuing on until complete.

4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from “photographs” if essential to the understanding of the dissertation. Silver prints of “photographs” may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.

University Microfilms
300 North Zeeb Road
Ann Arbor, Michigan 48106
A Xerox Education Company

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
BARTZ, David Edwin, 1946-
CHANGES IN SUPERINTENDENTS' BEHAVIORS FOLLOWING
FEEDBACK AS PERCEIVED BY THEIR SCHOOL BOARD
MEMBERS AND PRINCIPALS.

Western Michigan University, Ed.D., 1972
Education, administration

University Microfilms, A XEROX Company, Ann Arbor, Michigan

THIS DISSERTATION HAS BEEN MICROFILMED EXACTLY AS RECEIVED

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>11</td>
</tr>
<tr>
<td>III</td>
<td>37</td>
</tr>
</tbody>
</table>

**ACKNOWLEDGEMENTS** ............................................ ii

**LIST OF TABLES** .............................................. vi

**LIST OF ILLUSTRATIONS** ...................................... vii

**CHAPTER**

I INTRODUCTION TO THE STUDY .................................. 1

- The Problem and Its Background .......................... 2
- Rationale and Purpose of the Study ..................... 5
- Hypotheses ............................................... 6
- Basic Assumptions ....................................... 7
- Definitions of Terms .................................... 7
- Scope and Limitations of the Study .................... 8
- Overview of the Study .................................. 9

II REVIEW OF RELATED LITERATURE AND RESEARCH .......... 11

- Introduction .......................................... 11
- Related Literature .................................... 12
- Related Research ...................................... 20
- Summary ................................................ 36

III RESEARCH PROCEDURES .................................. 37

- General Design ....................................... 37
- Sample and Population .................................. 40
- Description of Participating School Districts ... 40
- Method of Testing the Hypotheses ..................... 41
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection</td>
<td>42</td>
</tr>
<tr>
<td>Processing the Data</td>
<td>43</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>43</td>
</tr>
<tr>
<td>Summary</td>
<td>46</td>
</tr>
<tr>
<td><strong>IV PRESENTATION AND ANALYSIS OF THE DATA</strong></td>
<td>47</td>
</tr>
<tr>
<td>Introduction</td>
<td>47</td>
</tr>
<tr>
<td>Testing the Hypotheses</td>
<td>50</td>
</tr>
<tr>
<td>( t ) Test Results Based on Principal Feedback Via the AIQ</td>
<td>50</td>
</tr>
<tr>
<td>( t ) Test Results Based on School Board Member Feedback Via the AIQ</td>
<td>55</td>
</tr>
<tr>
<td>( t ) Test Results Based on a Comparison of Principal and School Board Member Feedback Via the AIQ</td>
<td>58</td>
</tr>
<tr>
<td>Discussion of the ( t ) Test Results Based on Principal Feedback Via the AIQ</td>
<td>62</td>
</tr>
<tr>
<td>Discussion of the ( t ) Test Results Based on School Board Member Feedback Via the AIQ</td>
<td>65</td>
</tr>
<tr>
<td>Discussion of the ( t ) Test Results Based on a Comparison of Principal and School Board Member Feedback Via the AIQ</td>
<td>66</td>
</tr>
<tr>
<td>Summary</td>
<td>68</td>
</tr>
<tr>
<td><strong>V SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS</strong></td>
<td>73</td>
</tr>
<tr>
<td>The Problem</td>
<td>73</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>74</td>
</tr>
<tr>
<td>General Design</td>
<td>75</td>
</tr>
<tr>
<td>Findings</td>
<td>76</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
TABLE OF CONTENTS (continued)

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusions</td>
<td>78</td>
</tr>
<tr>
<td>Recommendations for Further Research</td>
<td>80</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>82</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>90</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>98</td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>101</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>103</td>
</tr>
</tbody>
</table>
### LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of Principals Participating on the Pretest and Posttest</td>
</tr>
<tr>
<td>2</td>
<td>Number of School Board Members Participating on the Pretest and Posttest</td>
</tr>
<tr>
<td>3</td>
<td>t-test Results for Amount of Change Scores from Principal Feedback Via the AIQ</td>
</tr>
<tr>
<td>4</td>
<td>AIQ Items</td>
</tr>
<tr>
<td>5</td>
<td>t-test Results for Proportion of Change Scores from Principal Feedback Via the AIQ</td>
</tr>
<tr>
<td>6</td>
<td>t-test Results for Amount of Change Scores from School Board Member Feedback Via the AIQ</td>
</tr>
<tr>
<td>7</td>
<td>t-test Results for Proportion of Change Scores from School Board Member Feedback Via the AIQ</td>
</tr>
<tr>
<td>8</td>
<td>t-test Results for Amount of Change Score Comparison of Response to Principal and School Board Member Feedback Via the AIQ</td>
</tr>
<tr>
<td>9</td>
<td>t-test Results for Proportion of Change Comparison of Response to Principal and School Board Member Feedback Via the AIQ</td>
</tr>
<tr>
<td>10</td>
<td>Summary of Significant AIQ Items Based on Principals' Perceptions (Hypothesis One)</td>
</tr>
<tr>
<td>11</td>
<td>Summary of Significant AIQ Items Based on School Board Members' Perceptions (Hypothesis Two)</td>
</tr>
<tr>
<td>12</td>
<td>Summary of Significant AIQ Items Based on a Comparison of Principals' and School Board Members' Perceptions (Hypothesis Three)</td>
</tr>
</tbody>
</table>
# LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
</tr>
<tr>
<td>3</td>
<td>45</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
CHAPTER I
INTRODUCTION TO THE STUDY

Various relationships have been assumed by educators pertaining to the effectiveness of a school administrator. One is that the effectiveness of a school administrator is an important factor in the success of an educational institution. For example, Jenkins stated, "The effectiveness of a school or school system is greatly influenced, if not fully determined, by the quality of its administration." It also has been postulated that, "In helping the present and oncoming generations of Americans to learn to live and to live to learn, no person is in a more strategic position than the school administrator."

A school administrator is in a leadership position. The ability of an administrator to lead individuals and groups of people in a manner that will fulfill the goals of the school is an important component of his effectiveness. Halpin stated, "The ultimate criteria of administrator effectiveness should be expressed in terms of group or organization achievement, in respect to the changes in the organization's accomplishments that can be

---


attributed to the behavior of the administrator. Halpin stressed the importance of group or organization achievement. If an administrator's behavior is going to influence the achievement of the organization, he must be cognizant of which behaviors he exhibits prompt organizational achievement. "Attitude change [by the administrator] in the direction advocated [by the perceiver] is more likely to occur when the message emanates from a source perceived as highly creditable (that is, expert and trustworthy)." Accepting the linkage between administrator behavior and organization achievement, a first concern for the administrator then is to establish behaviors perceived as fulfilling the expectations held for him by the organization and the groups with whom he interacts.

The Problem and Its Background

The purpose of this study is to determine if the behaviors of superintendents changed following feedback as perceived by principals and school board members.

Two basic questions relative to the evaluation of administrative behavior are: (1) What criteria should be used to measure behavior? and (2) Who is judging or perceiving the behavior? These two questions are fundamental to the problem addressed in this study.

---

1 Andrew W. Halpin, Theory and Research in Administration (Toronto: Macmillan Co., 1966), p. 50.

Numerous instruments to rate behavior have been developed. Although, as Stogdill pointed out, it is difficult to construct a rating scheme that meets all the intentions for rating behavior, the rating scale type of measurement instrument has been quite popular. One of the more popular rating scales used to measure leader behavior has been the Leader Behavior Description Questionnaire, commonly referred to as the LBDQ. There are various forms and several revisions of the LBDQ, which have purported to measure two factors. Halpin labeled the factors initiating structure and consideration. Brown has named the two factors system-oriented leadership and person-oriented leadership.

An instrument to measure perceived behavior is the Administrator Image Questionnaire (AIQ) developed by the Educator Feedback Center at Western Michigan University. This instrument has grown in popularity in recent years, being used by administrators in various states throughout the Midwest. It is important to note that the AIQ is based on the rationale that what is most important is individual or group perceptions of an administrator’s behavior or image. As a person is perceived, that is what he is in the mind.

---


of the observer. As the director of the Educator Feedback Center points out, two administrators displaying quite different behaviors could both be viewed similarly.¹

This study utilizes the Administrator Image Questionnaire as the instrument for measuring perceptions held of a school administrator. The items within the AIQ are the criteria on which the perceptions are based. The AIQ was selected as the measurement device because it deals with perceptions held of an administrator's behavior as opposed to the LBDQ which deals with frequencies of observed behaviors.

The question of who should judge or provide perceptions of administrator behavior also is basic to the study of administrative behavior. Boles noted that no two people perceive a phenomenon exactly the same.² Each person has a perceptual screen through which he perceives what he thinks happened.³ Every person with whom an administrator interacts could have different expectations for his behavior. It is too much to expect an administrator to be knowledgeable and be able to fulfill all of the expectations held for him by every individual with whom he interacts. A practical technique to assist the administrator to consolidate expectations

¹Educator Feedback Center, Western Michigan University, "Interpreting and Utilizing Your Administrator Image Profile," Kalamazoo, Michigan, 1970, p. 2. (Mimeographed.)


³Ibid., p. 100.
is to integrate an individual's expectations within the reference group with which the individual is associated. The administrator can then deal generally with the expectations of reference groups, reserving individual expectations for unique situations.

Superficially, it would appear that providing an administrator with feedback based on the perceptions held by the people with whom he interacts is sufficient for anticipating change in administrator behavior. For some unknown reason, this is where many studies of administrative behavior have terminated. It has been assumed that when an administrator becomes cognizant of how his behavior is perceived and at what level of behavior he is rated, his behavior would change as perceived by those who rated his behavior. This study tests that previously held assumption.

Thus, the important empirical question is: Does the behavior of a superintendent change following feedback as perceived by principals and school board members?

Rationale and Purpose of the Study

The rationale on which this study is based was alluded to in the previous sections. Because a superintendent occupies the highest position of the administrative hierarchy of a school system, his perceived behavior is of the utmost importance. Therefore, the superintendent was selected as the object of this investigation.

As was noted previously, each individual holds certain expectations for the behavior of a superintendent. In order to cope with all of these various expectations in an efficient and effective
manner, individual expectations can be categorized by the reference
group with whom he is associated. Two important reference groups
with whom a superintendent works are principals and school board
members. Principals and school board members interact with their
superintendent and are thus able to judge the behavior of their
superintendent.

The behavior of superintendents may not be congruent with the
way in which people with whom they interact believe they ideally
should behave. If a superintendent is going to be evaluated, it
seems appropriate that he should receive feedback as to how he is
perceived to behave and how he ideally should behave. If a super­
intendent is knowledgeable as to the difference between how he does
behave and how he ideally should behave, he then can be cognizant
of the degree to which the perceptions of those who are judging his
behavior need to change. This also gives him an objective for which
to strive.

The purpose of this study is to determine if the behavior of
a superintendent does change as perceived by principals and school
board members following feedback pertaining to: (1) his perceived
behavior, and (2) how he ideally is expected to behave.

Hypotheses

The major hypotheses to be tested by this study are:

1. A superintendent will be given feedback based on principals'
   perceptions of his real and ideal behaviors. Two months
   following the feedback, principals' perceptions of the
   superintendent's real behavior will have significantly
   changed in the direction of his ideal behavior.
2. A superintendent will be given feedback based on school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

3. A superintendent will be given feedback based on both principals' and school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed more than principals' perceptions in the direction of the superintendent's ideal behavior.

Basic Assumptions

For the purpose of this study, the following basic assumptions have been made.

A superintendent values feedback based on principals' and school board members' perceptions of his real and ideal behaviors.

A superintendent will desire to change his behavior as perceived by principals and school board members for those Administrator Image Questionnaire items he deems important to his behavior.

The perceptions which people hold of a superintendent's behavior are valid indicators of superintendent effectiveness.

The Administrator Image Questionnaire contains perceived behavior criteria of interest to superintendents, school board members, and principals; and the AIQ is a valid indicator of a superintendent's perceived behavior.

Principals and school board members will respond honestly to the way in which they perceive a superintendent's behavior.

Definitions of Terms

In order to facilitate a better understanding of certain terms in this study, the following definitions are given:

Perceive—How a person views, judges, or comprehends a phenomenon.
Feedback—Obtaining knowledge of perceptions held by others.

Real Behavior—The actual behavior of a person, as perceived by himself or other people.

Ideal Behavior—The way in which a person should behave, as perceived by himself or other people.

Expectations—The desired outcomes which are held for the occupant of a position by the people with whom he interacts.

Scope and Limitations of the Study

The major question explored within this study is whether the behaviors of superintendents changed following feedback as perceived by principals and school board members. The school districts and superintendents selected for this study are representative of public school districts which are basically white, middle class districts, with a student enrollment of less than 10,000. Therefore, generalization can be made to similar school districts.

The individual conference type of feedback that was used by this study is economically feasible in situations where the number of participants is small and reside in a reasonable geographic area. Inferences which can be made from the superintendents studied to other administrative positions are dependent upon the assumed response characteristics of those administrators.

Only superintendents from Southeastern Michigan were selected to be studied because of the operational problem of interacting with superintendents from a larger geographical area. The research design included two personal conferences with each participating superintendent. Therefore, the number of superintendents asked to
participate was limited. The fact that superintendents were asked to participate as opposed to being randomly selected is an additional limitation of the study. It is possible that those selected are not representative of superintendents in general. Lastly, only those AIQ items a superintendent deemed important to his behavior were measured.

Overview of the Study

The intent of the first chapter was to briefly introduce the study and discuss several important aspects. The problem was defined and its background was discussed along with rationale and purpose, the hypotheses were stated, the assumptions on which the study was based were noted, pertinent terms were defined, and the limitations and scope of the study were outlined.

Chapter II focuses its attention on relevant literature and research. Emphasis is placed on literature which deals with behavior and feedback, and data based research studies conducted to test specific hypotheses related to administrative evaluation, performance, behavior, or success.

Chapter III presents the research procedures employed in the study. The general design of the study is discussed and the sample and population defined. A description of the school districts which participated in the study is given. The method of data collection and techniques for testing the hypotheses are discussed, along with the methods utilized to process and analyze the data.
Chapter IV consists of the presentation and analyses of the data. Data relative to the testing of the hypotheses are discussed, along with a summary of the results obtained.

Chapter V includes a summary, findings, conclusions, and recommendations for further research. The summary includes a review of the problem, hypotheses, and general design. Recommendations are offered for further research in the realm of administrator behavior as it relates to feedback.
CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

Introduction

Educational researchers have devoted much time and effort to the study of the effectiveness, evaluation, and success of school administrators. It is the purpose of this chapter to analyze selected literature and research relevant to administrative effectiveness and evaluation, as well as feedback as it relates to behavior change.

There has been much discussion in the literature as to the definitions of leader and leadership. Boles offered the following definitions of these terms:

Leader—A leader is a person who helps an individual or a group to move toward goals that group members find acceptable.

Leadership—Leadership is a process in which an individual takes initiative to assist a group to move toward production goals, to maintain the group, and to dispose of those needs of individuals within the group that impelled them to join it.¹

It has been noted that every organization must have someone in a leadership position.² Additionally, the very nature of the position


of superintendent of schools thrusts the incumbent of this position into a leadership role.¹

Because of the importance placed on the role of a school administrator, it is necessary to evaluate his behavior in terms of his role effectiveness. Effectiveness in terms of a superintendent's performance has been defined by one source as a measure of the concordance between role behavior and role expectations.²

A major objective for evaluating the effectiveness of an administrator or superintendent should be to determine if he is meeting the expectations which are held for the position he occupies. The literature and research discussed in this chapter will pertain to evaluating the effectiveness of school administrators and the effect feedback has on behavior.

Related Literature

Various authors have indicated what they believe a leader needs to accomplish in order to be effective. Shartles stated, "In terms of leadership performance, effectiveness is judged in terms of what the organization does."³ It appears that Shartles emphasized the importance of organizational accomplishment more so than the


accomplishment of the leader himself. Halpin also emphasized organizational accomplishment when he stated, "The ultimate criteria of administrator effectiveness should be expressed in terms of group or organization achievement . . ."\textsuperscript{1} To judge effectiveness based on Shartles' and Halpin's point of view would not be an easy task, although the value of these criteria cannot be denied. It is evident that Halpin, himself, has found this a difficult task when it is noted that he has been engaged in several studies which employed the \textit{Leader Behavior Description Questionnaire} as the criterion measure, as opposed to establishing and using a criterion measure based on organizational accomplishments. Halpin conceded the use of organizational accomplishments in favor of ratings when he stated:

\begin{quote}
Although differences in the organization's products are the best criteria of the administrator's effectiveness, the social scientist may be temporarily forced to settle for criteria that fall short of this mark. These intermediate criteria usually take the form of ratings of the administrator's effectiveness.\textsuperscript{2}
\end{quote}

There is difficulty in determining a superintendent's effectiveness based on the accomplishments of the organization. Although the superintendent occupies a leadership position in a school system, there are numerous variables over which he has little or no control. Additionally, it is often difficult to determine what accomplishments a school system desires. This problem can be

\textsuperscript{1}Andrew W. Halpin, \textit{Theory and Research in Administration} (Toronto: Macmillan Co., 1966), p. 50.

\textsuperscript{2}Ibid., p. 51.
circumvented by shifting the focus from the organization to the individual leader, using intermediate criteria such as a rating scale. Brown, Morphet, and Schultz appear to support this approach.¹

Every school administrator occupies a leadership role because of the status of his position. Whether this role is that of a principal, business manager, or the superintendent, certain expectations are held for its incumbent. These expectations are placed on a role incumbent by various sources and reference groups.²

For a superintendent, various reference groups impose expectations pertaining to how they believe he should behave. Two such reference groups are principals and school board members. If the superintendent's role is perceived differently by his reference groups and himself, then the communications between the superintendent and the reference groups will be affected.³

It seems imperative that a superintendent be aware of the expectations held for him by his important reference groups.⁴


Superintendents do need to evaluate their own behavior relative to the image they are creating and the image they would like to create. Superintendents need to be aware of what expectations are held for their behavior so that they can behave in a manner which will result in their being viewed as they want to be viewed.

How does a superintendent become knowledgeable of the expectations which are held for him by the people with whom he interacts? Feedback from the people with whom he works is a method for accomplishing this task and can be used effectively to reduce the distortion of the differing perceptions which are held of an individual. As Leavitt pointed out, "To ignore differences in perceptions is to ignore a major determinant of behavior."^2

The use of feedback to inform an individual relative to his behavior is not new. Feedback has probably always served man as a means for modifying perceptions of his behavior. Annett noted the utility of the concept of feedback when he stated:

\[ \ldots \] the concept of feedback can be applied to the analysis of behaviour ranging from the simplest of movements to complex problem-solving tasks \ldots\]  
The general term used since about the turn of the century for a variety of forms of psychological feedback is knowledge of results (KR).^3

Holding pointed out the use of feedback as an experimental device

---


^2 Ibid., p. 40.

when he stated, "One of the most effective ways in which the trainer can influence the course of learning is by manipulating knowledge of results." Holding further noted, "The experimenter ... may learn a great deal by depriving people of knowledge of results. Many experimenters have used this technique, with drastic effects upon learning." Bass also alluded to the importance of feedback when he stated, "As one learns to behave in a given manner, knowledge of the effects of this behavior is the important corrective and reinforcing factor in the process of learning." In reference to the use of student feedback as a means of changing teacher behavior, Lauraesch et al. concluded, "... thirty years of research and development have indicated that student feedback is a useful and reliable means for improving and directing behavioral changes in teachers."

Leavitt discussed feedback as it relates to an individual changing how people perceive him. Leavitt stated, "Each of us struts his own act before the world, as it were, in an effort to

---


2Ibid.


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
have other people see us as the kind of person we value."¹ In order to determine how well an individual gets his act across to other people, Leavitt noted:

To the best of this writer's knowledge there is only one general mechanism by which such distortions in relationships can be reduced, and this is the mechanism of feedback. If somehow we can develop better ways by which we can learn from others how our act is getting across, then we can either modify it . . . or we can try to reduce the discrepancy between the act and ourselves . . .²

Feedback can be obtained in various ways, ranging from informal systems to quite elaborate, formalized techniques. In reality, the evaluation of a superintendent is a means for him to receive feedback. In order to furnish the superintendent with more precise feedback, it is beneficial for the feedback results of those rating his behavior to be based on objective types of criteria.

If a superintendent is going to be effective, he must know what behaviors are expected of him. One method which could be used to accomplish this task is to have the people with whom the superintendent interacts indicate how they believe he ideally should behave. By having these same people indicate how they believe the superintendent actually is behaving, he can determine the degree of congruency between the way people believe he really is behaving and ideally should behave. Shartles noted the utility

²Ibid., p. 39.
of this approach, when he stated, "... an evaluation of personal performance can be made by comparing the actual with the ideal descriptions of leader behavior. An executive who compares favorable to the ideal would, in these terms, be successful."\(^1\)

Oftentimes evaluative techniques for reviewing the performance of the superintendent have not been based on objectively defined criteria. Halpin noted the need for objectively based evaluation of the superintendent.\(^2\) In 1950 Church pointed out the inadequacies of evaluative techniques used to evaluate superintendents when he stated, "The absence of a defensible and acceptable set of standards by which superintendents of schools can be judged fairly has made the profession of school administration on the superintendent's level one of the most hazardous."\(^3\) The situation seems to have changed little from 1950 to 1971, if one examines the following statement made recently, "Evaluation is one of the most important functions of a board and it is probably the one that is usually done least effective."\(^4\)

Because of the vulnerability of the superintendency, it is important that a superintendent be evaluated on objectively defined criteria. Halpin noted the need for objectively based evaluation of the superintendent.\(^2\) In 1950 Church pointed out the inadequacies of evaluative techniques used to evaluate superintendents when he stated, "The absence of a defensible and acceptable set of standards by which superintendents of schools can be judged fairly has made the profession of school administration on the superintendent's level one of the most hazardous."\(^3\) The situation seems to have changed little from 1950 to 1971, if one examines the following statement made recently, "Evaluation is one of the most important functions of a board and it is probably the one that is usually done least effective."\(^4\)

---


\(^3\)Harold H. Church, "How Shall Superintendents Be Judged?" *Nation's Schools*, VL (May, 1950), 32.

criteria. The public may oftentimes associate any failure of the school system directly to the superintendent. This sentiment is alluded to by McCarty when he stated:

The superintendent is viewed as the most visible cause of failure of a particular school system to meet its obligations to society and is battered by a determined and merciless army of critics who have discovered that public education is both a vulnerable and popular target.¹

It is very important for those who do evaluate the superintendent to have the facts and competency to accurately evaluate his performance.² It would appear that principals and school board members are familiar enough with a superintendent's behavior to competently evaluate him.

A review of the literature indicates that intermediate criteria such as rating scales can be beneficial in determining the effectiveness of a school administrator. The literature points out that having the people with whom the superintendent interacts indicate how they believe he actually does behave and ideally should behave is a functional method for evaluating his effectiveness. In essence, this furnishes the superintendent with feedback relative to his perceived behavior. None of the literature reviewed indicated if a superintendent did become more effective as perceived by other people following feedback.


²James B. Boyd, "How to Appraise School Superintendents," Nation's Schools, LXXVIII (July, 1966), 34.
Related Research

This section will discuss research studies which have used various techniques and approaches to study the behavior of school administrators, as well as studies regarding the effect feedback has on behavior.

One of the questions which Bultman explored in his study was whether or not overall student perceptions of teacher performance for teachers who received written feedback would be more favorable on the posttest than on the pretest. The Student Opinion Questionnaire served as the criterion measure. The sample was composed of fifty-four fourth, fifth, and sixth grade teachers.

Bultman concluded:

The data suggests that teachers in the feedback group were not more favorably perceived by their students after the experimental treatment of receiving student feedback regarding their teaching performance. On the contrary the results . . . approach a significant difference, but in the direction opposite to that expected. The overall mean score for teachers in this group decreased from an initial mean of 3.54 to a final mean of 3.37.

Bultman did find that teachers were able to change student perceptions of item nine (variety of teaching) in certain instances.

---


2 Ibid., p. 86.

3 Ibid., p. 119.
It is interesting to note that teachers were perceived less favorably by students after they received feedback regarding their behavior.

A portion of a study conducted by Wolthuis was devoted to determining the relationship between an instructor's intent to change his behavior and the changes of the student ratings of the instructor.¹ The Instructor Image Questionnaire served as the criterion measure, and feedback was given to instructors via the Instructor Image Profile. The population consisted of students and teachers in the Teacher Education Department at Western Michigan University.²

In reference to the results regarding the relationship between instructors' intent to change their behaviors and the change of student ratings of instructors, Wolthuis concluded:

When mean change scores on the items on which instructors declared to change were compared to control group changes, no significant differences were detected. When intent items and non-intent items were compared, however, the items on which the instructor declared an intent to change showed a significant lower negative mean change.³

The conclusions made by Wolthuis indicated that the instructors were rated lower on the posttest than on the pretest. In essence, they did not modify their perceived behavior in the desired direction.


²Ibid., pp. 27, 30.

³Ibid., p. 75.
Gage et al. conducted a study in 1956 utilizing sixth grade teachers to determine the relationship between student feedback and change of teacher behavior. Teachers in one group received feedback as to how their students described their behavior and the behavior of an ideal teacher, while teachers in the other group received no feedback. One to two months were allowed between the pretest and posttest.\(^1\) The authors concluded, "The feedback not only produced change in behavior; it also produced improvement in accuracy of teachers' perceptions of their pupils' opinions."\(^2\)

Daw and Gage conducted a study in California during the 1962-63 school year to determine the effect of feedback from teachers on the behavior of elementary principals. The teachers rated their principal on twelve items regarding how they actually perceived his behavior and how they thought an ideal principal would behave. The criterion measure was the Report on Your Teachers' Opinions.\(^3\) Daw and Gage summarized, "All in all, the results indicate that feedback affects change in principals' behavior."\(^4\)


\(^2\)Ibid., p. 180.

\(^3\)Robert W. Daw and N. L. Gage, "Effects of Feedback from Teacher to Principal," Journal of Educational Psychology, LVIII (June, 1967), 181-83.

\(^4\)Ibid., p. 187.
Ryan used eighty teacher interns from the Stanford Teacher Education Program as his sample to determine the effects of the type of feedback and change in the perception held of a teacher's behavior. The three types of feedback used were: (1) a completed questionnaire, (2) the supervisor giving the teacher feedback, and (3) the supervisor and the teacher jointly discussing and interpreting the feedback. Ryan concluded, "Students' written feedback made no significant difference . . . "\(^1\) Ryan surmised that because the teachers had rated high on the pretest that they had no great desire to change.

The purpose of a study conducted by Aubertine was to determine the effect student feedback has on teacher behavior. The Teacher Demonstration Rating Form and the Set Induction Rating Form were the criterion measures. The sample was composed of sixty teachers who were divided into four groups, with one group serving as the control group. The group receiving student feedback, as well as other training, showed significant gains over the control group, but not over the other two groups which also received training.\(^2\) Aubertine concluded:

Although the statistical data does not verify this conclusion, it seems that the added treatments of


practice and pupil feedback operated essentially in a complementary capacity to the training in set induction process.\(^1\)

The major purpose of Bewley's study was to identify the characteristics of the successful superintendent. Additionally, Bewley hypothesized that trustees (school board members) and staff members (teachers) would have different perceptions of the superintendent's characteristics.\(^2\)

In order to test his hypotheses, Bewley established success characteristics from a review of the literature. He then selected twelve superintendents who had been identified as being successful in their current capacity. People with whom the twelve superintendents interacted were interviewed in order to determine how they rated their superintendent with respect to the previously determined success characteristics.\(^3\) In reference to the major purpose of the study, Bewley found that certain characteristics were similar to nearly all of the superintendents studied, while other characteristics were dissimilar to the twelve superintendents. Bewley concluded that success came to the twelve superintendents who were studied because they possessed certain qualities and because they skillfully used their own unique characteristics.\(^4\)

\(^1\)Ibid.
\(^3\)Ibid., p. 12.
\(^4\)Ibid., p. 114.
Bewley additionally concluded that school board members and teachers held different perceptions of the characteristics of a superintendent. As Bewley stated, "Apparently the superintendent of schools is often placed in the difficult situation of having to conform to divergent and often conflicting sets of expectations."

Joel approached the study of successful superintendents by relating leadership characteristics with the tenure of successful superintendents. His sample was composed of thirty superintendents from Connecticut with ten or more years of tenure in the same superintendency. The structured interview technique was employed to gather the data.

The thirty superintendents surveyed indicated that the following factors contributed most to the success of a superintendent: personality, human relations, staff relations, strong and creative leadership, family life that complements the image of the superintendent, professional preparation, quality of school board members, and a good relationship with all of the people to whom the school belongs.

In conclusion, Joel made the following observation, "Too often superintendents may have to play a role according to what is

1Ibid., p. 87.


3Ibid., pp. 93, 192.
expected of them by the public and other superintendents, rather than what they actually believe as the people they really are."¹

The purpose of a study conducted by Thorin was to determine how aware secondary school principals are of the concepts held for their role. Thorin surveyed principals, teachers, and superintendents from six school districts in Oakland County, Michigan.² Each participant responded such that he expressed his actual and ideal concepts of the principal's role. The findings indicate that the superintendent's concept of the principal's ideal and actual role were in close agreement. Teachers' concepts of the principal's ideal and actual role were not in close agreement. The principal's own concept of his ideal role and the role he actually believes he is fulfilling were not in close agreement.

In reference to the ideal role of the principal, Thorin concluded, "Closer agreement exists between the principal and his superintendent as to the concept of his ideal role."³

It is interesting to note that Thorin's data indicate superintendents view principals playing a role that is closely congruent with their ideal role. It appears that the results indicate that superintendents hold different expectations for the ideal role of a principal than do principals or teachers.

¹Ibid., p. 195.
³Ibid., pp. 119-20, 126.
Shank's study focused on identifying and describing the expressed expectations of school board members and superintendents in respect to defining the role of the superintendent. Shank sought to determine the agreement, lack of agreement, or disagreement of school board members and superintendents in reference to the role of the superintendent.¹

The study was conducted in Orange County, California. Approximately 36 school boards were represented by the 91 school board members who participated. Thirty-six superintendents participated in the study. Data were gathered by the use of a questionnaire which listed 120 superintendency role definition items. Shank received approximately a 50 percent return from the school board members, whereas nearly all of the superintendents responded.²

Shank concluded:

The research on the problem, to date, has indicated that there is not a high degree of agreement among school board members, among occupants of the superintendency position, or between school board members and superintendents on the expectations relating to numerous aspects of the school superintendency role.³

Because Shank received only a 50 percent return of questionnaires from school board members, a limitation was placed on the results.


²Ibid., pp. 3, 269, 153, 304.

³Ibid., p. 288.
In reference to the previously quoted conclusion by Shank, it seems that different expectations for the role of a superintendent are held by board members and superintendents.

Part I of Teacher Perceptions of Administrator Behavior dealt with replicating an earlier study done by Hunter. Hunter had found that teachers and board members from small school districts rated their superintendents higher on both dimensions of the Leader Behavior Description Questionnaire than teachers and board members from large school districts. It was additionally found that superintendents in small districts described themselves lower on both dimensions of the LBDQ than superintendents in large districts.¹

Charters reproduced Hunter's study, except that he did not solicit the perceptions of school board members. He replaced school board members with administrative staff members. Data were gathered in the St. Louis, Missouri, area from twenty school districts, ten being considered small districts (1,500 to 3,000 students) and ten large districts (5,000 to 10,000 students). The data from Charters' study refuted Hunter's findings.² Additional results of Charters' study indicated that teachers in large districts rated their superintendents higher on the initiating structure factor of the LBDQ, and that administrative staff members


²Ibid., pp. 26, 28, 86.
in large districts rated their superintendents higher on both factors.¹

There are several possible explanations for the contradictions in the findings by Hunter and Charters. It is difficult to replicate a study, and in reality, it is impossible. Charters' study was conducted several years later than Hunter's. Additionally, one or possibly both of the studies were not representative of large or small districts.

Exploration in Role Analysis was a part of the School Executive Studies initiated in 1952 at Harvard University. This study was conducted in Massachusetts, with the sample being composed of 105 superintendents and 508 school board members. Data on which the results were based were gathered by personal interviews with the superintendents and school board members. The length of a superintendent's interview averaged eight hours, as compared to the average length of a school board member's interview being two hours.²

The study explored numerous hypotheses. In general, it focused on the concept of the role, expectations held for a role, and role conflict. One of the concluding observations made by the authors was, "Our research experience suggests that the different expectations held for incumbents' [superintendents'] behavior and attributes

¹Ibid., p. 69.
are crucial for an understanding of their different behaviors and characteristics.\footnote{30} As the previous quotation indicates, the incumbent of the role of a superintendent is subjected to differing expectations and these different expectations do influence his behavior.

Everson's study compared how the principal is perceived by his superintendent, teachers, and himself, and also compared the expectations held for the principal's behavior as a leader. The study surveyed 40 principals, 280 staff members (teachers), and 40 superintendents. The Leader Behavior Description Questionnaire was the criterion measure.\footnote{31}

The findings indicated that principals and superintendents agreed on the real behavior of the principal for both dimensions of the LBDQ. Teachers rated the principal lower on the consideration factor than did the principal, himself, or the superintendent. In respect to the ideal initiating structure scores, the principals and superintendents were in agreement.\footnote{32} Everson concluded, "Although the findings clearly indicate desirable behavior on the part of the principal, they also contain arguments against the use

\footnote{1Ibid., p. 321.}
\footnote{3Ibid., pp. 82-83.}
of either superintendents' ratings or staff's ratings as the sole
criterion of leader effectiveness.\textsuperscript{1}

Hunter's study dealt with the discrepancy in perceptions of
the superintendent's behavior as viewed by teachers, school board
members, and the superintendent, himself. The focus of Hunter's
study was concerned with the size of a school system, as it related
to differing perceptions of the superintendent's behavior. The
major hypothesis tested was that there would be greater discrepancy
between descriptions of the superintendent's behavior in large
districts than in small districts.\textsuperscript{2}

The sample was composed of sixteen school districts from the
metropolitan St. Louis, Missouri, area. Four school board members,
fifteen teachers, and the superintendent from each of the sixteen
schools participated in the study. Those eight school districts
designated as large districts had a student enrollment ranging from
6,500 to 10,200 students. Small districts' enrollments ranged
from 1,600 to 2,700 students.\textsuperscript{3} The LBDQ served as the criterion
measure. Responses were obtained from approximately 80 percent
of the people surveyed. Hunter found that superintendents in
large districts rated themselves higher than superintendents from

\textsuperscript{1}\textit{Ibid.}, p. 89.

\textsuperscript{2}Ovid N. Hunter, "Relationship Between School Size and
Discrepancy in Perceptions of the Superintendent's Behavior"

\textsuperscript{3}\textit{Ibid.}, pp. 19, 22.
small districts. It was additionally concluded by Hunter, "In summary, the preceding data have shown that teachers and, less consistently, board members in small schools describe the behavior of their superintendent more favorably than did teachers and board members in large districts."¹

As was previously noted, Charters attempted to replicate Hunter's study, and based on his data refuted Hunter's findings. Assuming both Hunter and Charters employed adequate research design, the question of the affect of school district size as it is related to descriptions of the superintendent's behavior has not been resolved.

Halpin employed the LBDQ to survey the perceptions and expectations of school board members, staff members, and superintendents regarding their beliefs about the real and ideal behaviors of a superintendent. As was previously noted, the LBDQ measures two factors which Halpin has labeled initiating structure and consideration. The most effective superintendents are those who would score high on both dimensions.²

Halpin's sample was composed of 50 superintendents, 237 board members, and 350 staff members from Ohio schools. In respect to the ideal behavior of a superintendent, Halpin concluded that for the most part the reference groups were in agreement. The exception

¹Ibid., pp. 7, 35, 40.

²Andrew W. Halpin, The Leadership Behavior of School Superintendents (Columbus: The Ohio State University, 1956), pp. 29-30.
to this was the staff members' perceptions of the initiating structure behavior. Halpin additionally found that there was a significant difference between the real perceptions and the ideal expectations held for a superintendent's behavior. Of the 50 superintendents, only 19 were rated high on both dimensions by staff members and school board members.¹

Halpin's use of the real and ideal perceptions of a superintendent's behavior as a means of evaluation has been the basis of many studies, including the present one. This approach is useful because it gives the individual being rated feedback regarding what behaviors are expected of him.

The purpose of Hansen's study was to examine the relationship between selected variables and group ratings of administrators.² The data on which Hansen's study were based had been gathered by the Educator Feedback Center at Western Michigan University. The data were based on 7,004 ratings of 249 administrators. The Administrator Image Questionnaire was the criterion measure for the administrator ratings. A factor analysis of the AIQ revealed that 71 percent of the variance was accounted for by one factor. Hansen labeled this factor the general evaluative factor.³

¹Ibid., pp. 29-30, 78.
³Ibid., pp. 35, 54-55.
One specific question which Hansen answered was whether or not there was a relationship between the type of group rating the administrator and the administrator's image. It was concluded that teachers rated administrators lowest and service personnel rated them highest. The data indicated that there was no significant difference between administrators' ratings and school board members' ratings of the person being evaluated.¹

One of the implications generated by Hansen's study was, "... ratings from several types of groups could enhance the knowledge about the effectiveness of an administrator."² The data of Hansen's study were based on responses to the AIQ, which is the criterion measure for this study. Another finding of Hansen's which is relative to the present study was that administrators and board members do not view the person being rated significantly different. Finally, the implication that ratings by several reference groups can be beneficial for evaluating the effectiveness of an administrator is congruent with the philosophy of the current study.

The major concept of MacQueen's study dealt with the evaluation of the high school principal. MacQueen's study indicated wider variance between teachers and principals than between superintendents and principals in reference to the relative importance these reference groups place on certain criteria and procedures

¹Ibid., pp. 75-77.
²Ibid., p. 101.
for evaluating the high school principal. Another hypothesis stated that teachers, principals, and superintendents would agree on the importance of certain criteria pertaining to the evaluation of the high school principal.¹

School districts from New York, Michigan, Massachusetts, California, Texas, and Washington participated in the study. The two previously mentioned hypotheses were accepted based on the data.²

The fundamental purpose of Griffiths' dissertation focused on the evaluation of the superintendent. The major hypothesis tested was, "The successful superintendent is markedly different than the unsuccessful superintendent as to the degree of responsibility granted by the board, kind of practices used, and in reaction from teachers."³ The sample was composed of superintendents from Connecticut and New York. The superintendents studied were classified as either successful or unsuccessful based on the ratings of a team of qualified judges. Griffiths employed three criterion measures, which dealt with: (1) responsibility granted by the board to the superintendent, (2) the kind of practices used by the superintendent to carry out his responsibility, and

---


²Ibid., pp. 141, 183.

(3) reactions of the teachers as to how they react to the superintendent's practices. Data were gathered by the use of personal interviews and questionnaires.\(^1\)

The results of the analysis of the data indicated that the major hypothesis should be rejected. Griffiths did find that successful superintendents function more adequately in the area of human relations than did unsuccessful superintendents.\(^2\)

Summary

The literature and research examined in this chapter have basically dealt with the effectiveness of school administrators, and the relationship between feedback and changes of the perceptions held of an individual's behavior. The literature and research in these areas have used various approaches and techniques to study administrator effectiveness, but none have specifically determined if an administrator does change his behavior as perceived by principals and school board members following feedback pertaining to how he does behave and ideally should behave. The present study will attempt to make this determination.

\(^1\)Ibid., pp. 46-47, 51-55.
\(^2\)Ibid., pp. 127-28.
CHAPTER III

RESEARCH PROCEDURES

General Design

The research design utilized to conduct this study is a fundamental design of educational research. The design might be termed the change or difference design. Figure 1 represents an example of the variables in this design. Y represents the criterion score, Y_b the pretest score, Y_a the posttest score, and D the difference between Y_b and Y_a (Y_b - Y_a). Bruning and Kintz also discussed the design of the study, when they stated:

"Probably the most common use of the t-test is to determine whether the performance difference between two groups of subjects is significant. In most experimental situations, the subjects are randomly assigned to the two groups; one of the groups is manipulated experimentally, and the effects of this manipulation are analyzed by comparing the performance of the two groups."

The Administrator Image Questionnaire served as the pre and post measures for this study. The group difference scores (pretest minus posttest) of the experimental and of the control groups are compared by using a \( t \) test.

Superintendents were randomly assigned to either the control or experimental group. Superintendents in the experimental group received feedback regarding how principals and school board members perceived their behaviors, and how principals and school board members believed they ideally should behave. Superintendents in the control group did not receive feedback. The post AIQ was given to principals and school board members of superintendents in the control group two months after the AIQ was initially administered. Principals and school board members of superintendents in the experimental group were given the post AIQ two months after their superintendent received feedback. It was assumed that the two month period would be sufficient time for principals and school board members to change perceptions of their superintendent's behavior. Only those items which a superintendent deemed important to his behavior were scored because change was more likely to occur if the superintendent valued the importance of the items used to measure his behavior.

The independent variable for this study is the feedback based on principals' and school board members' perceptions of their superintendent's real and ideal behaviors. Based on this feedback, a superintendent could determine the discrepancy between how he does behave and ideally should behave. Manipulation of the independent variable was accomplished by giving feedback to the
experimental group and not to the control group. Because the independent variable was manipulated and the data were gathered in the field, this study is a field experiment. The dependent variable is the perceived behavior of a superintendent as measured by the AIQ.

The criterion measure consists of item scores on the Administrator Image Questionnaire. The AIQ lists twenty-three items pertaining to the perceived behavior of an administrator. The researcher developed an AIQ ideal form which differs from the AIQ in that it asks the respondent to indicate how he believes a superintendent ideally should behave. The AIQ asks a respondent to indicate how he believes his superintendent actually is behaving. The AIQ and the AIQ ideal form are presented in the appendix, as well as information pertaining to the validity and reliability of the AIQ.

The approach used by this study of giving members of the experimental group feedback and not giving the control group feedback is typical in learning situations. As Holding pointed out, "One of the most effective ways in which the trainer can influence the course of learnings is by manipulating knowledge of results [feedback]."¹ Holding further noted, "The experimenter . . . may learn a great deal by depriving people of knowledge of results. Many experiments have used this technique, with drastic effects upon learning."² Bass alluded to the importance of feedback when he stated, "As one learns to behave in a given manner, knowledge

²Ibid.
of the effects of this behavior is the important corrective and reinforcing factor in the process of learning.  

Sample and Population

Twenty-four superintendents from Southeastern Michigan participated in the study. Participating superintendents were selected on the basis of those who were willing to take part in the study.

Most school districts in Michigan have a board of education composed of seven members. If for some reason a board member did not wish to participate, he was excluded from the sample. If a board member did not participate when the AIQ pretest was administered, he was not invited to participate on the AIQ posttest. All principals and assistant principals from the twenty-four school districts were asked to participate. The participation limitations which were placed on board members also applied to principals and assistant principals.

Description of Participating School Districts

Twenty-four school districts from Saginaw, Shiawassee, Genesee, and Oakland Counties, Michigan, participated in the study. The size of districts ranged from enrollments of approximately 800 to 9,000 students. The average size of a district was approximately 4,000 students. The enrollments of participating districts are listed in

---

the appendix. Participating districts would be representative of
districts in one of the following categories: (1) rural, (2) rural-
suburban, (3) suburban, or (4) small urban.

Method of Testing the Hypotheses

The research hypotheses were:

1. A superintendent will be given feedback based on principals' perceptions of his real and ideal behaviors. Two months following the feedback, principals' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

2. A superintendent will be given feedback based on school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

3. A superintendent will be given feedback based on both principals' and school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed more than principals' perceptions in the direction of the superintendent's ideal behavior.

The method and procedure used to test the hypotheses were alluded to in the previous section and therefore will not be discussed in detail. The experimental group received feedback while the control group did not. A *t* test was used to determine if the difference between the mean change scores of the experimental and control groups was significantly different.

The testing of the third hypothesis used only the experimental group. School board members represent a superordinate reference group for a superintendent and principals represent a subordinate reference group. In essence, this hypothesis is concerned with
determining whether or not a superintendent's behavior as perceived by principals and school board members would change more toward superordinates than subordinates following feedback from both groups.

Data Collection

The Administrator Image Questionnaire was personally delivered to each superintendent for the initial administering of the questionnaire. It should be noted that the questionnaires were filled out twice during the study. Initially both the AIQ and the AIQ ideal forms were given, and at the conclusion the AIQ was given again as the post measure. The data were collected from September through December of 1971.

The questionnaires were delivered as part of a packet which also contained a large stamped, self-addressed envelop, and instructions. There were two packets, one for school board members and the other for principals. Part of the instructions directed one member from each of the respective groups to be responsible for mailing the completed questionnaires to the researcher. Each superintendent was given a direction sheet which outlined the basic steps of the study. Superintendents were also verbally instructed to make sure that one member from each group returned the completed questionnaires to the researcher and that the completed questionnaires were not to be returned to him. The questionnaires were coded only by reference group. Information regarding the instructions is presented in the appendix.
After the AIQ and the AIQ ideal forms were returned to the researcher, the results were tabulated. The experimental group was given feedback, whereas the control group was not. During the following two months, the researcher distributed the post AIQ using the same system that was used to initially distribute the questionnaires. The post AIQ was returned in the same fashion as the first set of questionnaires. After the study was completed, members of the control group also were given feedback regarding perceptions held of their behaviors.

Processing the Data

Processing the data consisted of the following: (1) scoring the questionnaires, (2) tabulating the results for feedback, and (3) performing the data analysis. Feedback was given to superintendents using profile sheets. A completed profile sheet is presented in the appendix. Feedback was given to superintendents according to response groups, the groups being: (1) principals, (2) school board members, and (3) both groups combined.

Data Analysis

The overall and individual item ratings on the AIQ were used to compare responses for the control and experimental groups. Only those items which a superintendent deemed important to his behavior were scored and analyzed.

Two approaches were used to analyze the data: (1) the amount of change from pre to post of both the experimental and the control
groups were compared, and (2) the proportion of change in the direction of the ideal image of both the experimental and the control groups were compared. The amount of change approach is the usual method used to analyze data in similar studies. The proportion of change approach also was used because it takes into account the degree to which change occurs as a function of the amount of change possible. For example, the higher an individual is rated on the AIQ, the less change is possible. An individual who is rated at the 3.2 level has a greater change potential than a person rated at the 4.8 level.

Figure 2 represents an example of how the amount of change score is calculated. The amount of change score represents the

Figure 2
Calculation of the Amount of Change Score

<table>
<thead>
<tr>
<th>Pre AIQ</th>
<th>Post AIQ</th>
<th>Amount of Change (pre-post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2</td>
<td>4.4</td>
<td>.2</td>
</tr>
</tbody>
</table>

difference between the pre AIQ and post AIQ scores. It should be noted again that only those items which a superintendent in the experimental group deemed important to his behavior were measured.¹

Figure 3 represents an example of how the proportion of change score is calculated. The difference between the pre AIQ and the ideal AIQ scores represents the discrepancy score. The difference

¹Pretest AIQ item scores exceeding 4.7 were not analyzed.
between the pre AIQ and the post AIQ scores represents the gain or loss attributed to a superintendent. The proportion of change represents the change attributed to a superintendent, and is calculated by dividing the gain or loss by the discrepancy score.

Figure 3
Calculation of the Proportion of Change Toward the Ideal Score

<table>
<thead>
<tr>
<th>Pre AIQ</th>
<th>Ideal AIQ</th>
<th>Discrepancy (Ideal-Pre)</th>
<th>Post AIQ</th>
<th>Pre-Post (gain/loss)</th>
<th>Proportion of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9</td>
<td>4.7</td>
<td>.8</td>
<td>4.3</td>
<td>.4</td>
<td>( \frac{.4}{.8} = .50 )</td>
</tr>
</tbody>
</table>

When using the proportion of change approach, only those items which a superintendent in the experimental group deemed to be important to him and on which the pre AIQ score was less than the ideal AIQ score were analyzed. For the control group, only those items on which the pre AIQ score was less than the ideal AIQ were measured. In order to eliminate negative scores and assist the data processing, one was added to each score when using the amount of change approach, and ten when using the proportion of change approach.

Hypothesis three involved only school board members and principals from the experimental group because the purpose of this hypothesis was to determine if a superintendent's behavior as perceived by principals and school board members would change more toward school board members than principals following feedback. Because the control group did not receive feedback, it could not be used in the analysis of this hypothesis. Complete data were obtained from...
eight of the twelve school districts in the experimental group. Data from these eight districts were used to test the third hypothesis.

Summary

This study investigated the relationship between feedback and changes of the perceptions held of a superintendent's behavior. Twenty-four superintendents from Southeastern Michigan participated in the study. These twenty-four superintendents were randomly assigned to either a control or experimental group, such that each group was represented by twelve superintendents. Superintendents in the experimental group received feedback relative to how their principals and school board members perceived their behaviors, and how their principals and school board members believed they ideally should behave. Superintendents assigned to the control group did not receive feedback. After two months, the behaviors of superintendents in both the experimental and control groups were again rated by their principals and school board members. Scores on the Administrator Image Questionnaire served as the criterion measure. The t test was used to determine if the mean scores of the experimental and control groups differed significantly.
CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

This chapter will report and discuss the results of the data analysis. The format will be to report the statistical analysis in numerical form by the use of tables and then to discuss the results. Researchers sometimes differ in their interpretations of statistical results. Therefore, it is important not only to examine the statistical data listed in the tables, but also to discuss the interpretations pertaining to the results.

Several problems arose during the study. Board members from eight school districts chose not to participate. Therefore, complete data were available on only sixteen of the twenty-four school districts in the sample. This means that data from sixteen school districts were obtained to test the second hypothesis, whereas data were obtained from all twenty-four districts to test the first hypothesis. The third hypothesis was tested with data pertaining to the superintendents from the experimental group composed of eight school districts.

The responses of individual principals and board members were kept anonymous. Even the researcher did not know which principals or board members from a particular school district participated, unless all participated. The responses were kept anonymous so that
principals and board members would be more inclined to participate and would respond more frankly under these conditions.

Anonymous responses created a problem to determine if the same people responded to the pretest and posttest, unless all of the principals and board members from a district participated on both tests. Raters were asked not to participate on the posttest unless they had participated on the pretest, but this could not be checked.

The number of principals from each school participating on the pretest and posttest for the experimental and control groups are listed in Table 1. As the data in Table 1 indicate, eighty-six principals from the experimental group participated on the pretest and seventy-four participated on the posttest. Sixty-five principals from the control group participated on the pretest and sixty participated on the posttest. The data in Table 1 indicate that there were more principals representing the experimental group than the control group. The unequal number of respondents on the pretest and posttest can be attributed to the lack of control when using the field experiment approach. It is assumed that the posttest respondents were representative of the pretest respondents.

Table 2 contains data relative to the number of school board members participating in the study. Complete data from school board members were obtained from sixteen districts, eight districts representing each group. Forty-five board members from the experimental group participated on the pretest and forty-four board members participated on the posttest. Forty-five board members from the control group participated on the pretest and thirty-seven participated on the posttest.
Table 1

Number of Principals Participating on the Pretest and Posttest

<table>
<thead>
<tr>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent</td>
<td>Pre</td>
</tr>
<tr>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>E₁</td>
<td>5</td>
</tr>
<tr>
<td>E₂</td>
<td>7</td>
</tr>
<tr>
<td>E₃</td>
<td>4</td>
</tr>
<tr>
<td>E₄</td>
<td>8</td>
</tr>
<tr>
<td>E₅</td>
<td>9</td>
</tr>
<tr>
<td>E₆</td>
<td>6</td>
</tr>
<tr>
<td>E₇</td>
<td>6</td>
</tr>
<tr>
<td>E₈</td>
<td>8</td>
</tr>
<tr>
<td>E₉</td>
<td>8</td>
</tr>
<tr>
<td>E₁₀</td>
<td>4</td>
</tr>
<tr>
<td>E₁₁</td>
<td>13</td>
</tr>
<tr>
<td>E₁₂</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
</tr>
</tbody>
</table>

Table 2

Number of School Board Members Participating on the Pretest and Posttest

<table>
<thead>
<tr>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent</td>
<td>Pre</td>
</tr>
<tr>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>E₁</td>
<td>5</td>
</tr>
<tr>
<td>E₂</td>
<td>7</td>
</tr>
<tr>
<td>E₃</td>
<td>5</td>
</tr>
<tr>
<td>E₅</td>
<td>4</td>
</tr>
<tr>
<td>E₈</td>
<td>4</td>
</tr>
<tr>
<td>E₉</td>
<td>7</td>
</tr>
<tr>
<td>E₁₀</td>
<td>7</td>
</tr>
<tr>
<td>E₁₁</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
</tr>
</tbody>
</table>
Testing the Hypotheses

The research hypotheses were:

1. A superintendent will be given feedback based on principals' perceptions of his real and ideal behaviors. Two months following the feedback, principals' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

2. A superintendent will be given feedback based on school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

3. A superintendent will be given feedback based on both principals' and school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed more than principals' perceptions in the direction of the superintendent's ideal behavior.

A t test was performed to test the three hypotheses comparing group responses for each of the twenty-three AIQ items and for the overall average of items one through twenty-three. Two approaches were used to analyze the data: (1) the amount of change scores from pre to post for the experimental and the control groups were compared, and (2) the proportion of change in the direction of the ideal images of the experimental and control group superintendents were compared. Methods for calculating the amount of change score and the proportion of change scores were discussed in the third chapter.

Table 3 contains t-test results to determine if superintendents' behaviors changed as perceived by principals when they received
feedback. The data in Table 3 were analyzed using the amount of change approach (pretest minus posttest). The N in Table 3 represents the number of superintendents who deemed principals' perceptions on that item to be important to their behavior.¹

Table 3

<table>
<thead>
<tr>
<th>AIQ Items</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>t Value</th>
<th>Significance Level 1 Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7 -0.17</td>
<td>12 0.06</td>
<td>-1.438</td>
<td>(neg.)</td>
</tr>
<tr>
<td>2</td>
<td>10 0.06</td>
<td>12 0.07</td>
<td>-0.035</td>
<td>(neg.)</td>
</tr>
<tr>
<td>3</td>
<td>6 0.15</td>
<td>12 0.02</td>
<td>0.711</td>
<td>.24</td>
</tr>
<tr>
<td>4</td>
<td>8 -0.01</td>
<td>12 -0.02</td>
<td>0.025</td>
<td>.49</td>
</tr>
<tr>
<td>5</td>
<td>6 -0.13</td>
<td>12 -0.07</td>
<td>-0.339</td>
<td>(neg.)</td>
</tr>
<tr>
<td>6</td>
<td>8 0.05</td>
<td>12 -0.02</td>
<td>0.274</td>
<td>.39</td>
</tr>
<tr>
<td>7</td>
<td>10 0.01</td>
<td>12 -0.12</td>
<td>0.755</td>
<td>(neg.)</td>
</tr>
<tr>
<td>8</td>
<td>10 0.18</td>
<td>12 -0.16</td>
<td>1.619</td>
<td>.06*</td>
</tr>
<tr>
<td>9</td>
<td>11 0.04</td>
<td>12 0.15</td>
<td>-0.507</td>
<td>.23</td>
</tr>
<tr>
<td>10</td>
<td>7 0.33</td>
<td>12 -0.02</td>
<td>1.412</td>
<td>.09*</td>
</tr>
<tr>
<td>11</td>
<td>9 0.34</td>
<td>12 0.18</td>
<td>0.847</td>
<td>.20</td>
</tr>
<tr>
<td>12</td>
<td>7 0.26</td>
<td>12 0.13</td>
<td>1.267</td>
<td>.11</td>
</tr>
<tr>
<td>13</td>
<td>9 -0.06</td>
<td>12 -0.05</td>
<td>-0.029</td>
<td>(neg.)</td>
</tr>
<tr>
<td>14</td>
<td>10 -0.04</td>
<td>12 0.19</td>
<td>-0.942</td>
<td>(neg.)</td>
</tr>
<tr>
<td>15</td>
<td>10 -0.17</td>
<td>12 -0.06</td>
<td>-0.468</td>
<td>(neg.)</td>
</tr>
<tr>
<td>16</td>
<td>8 0.13</td>
<td>12 -0.05</td>
<td>1.458</td>
<td>.08*</td>
</tr>
<tr>
<td>17</td>
<td>9 0.02</td>
<td>12 -0.07</td>
<td>0.667</td>
<td>.25</td>
</tr>
<tr>
<td>18</td>
<td>9 0.11</td>
<td>12 0.06</td>
<td>0.346</td>
<td>.37</td>
</tr>
<tr>
<td>19</td>
<td>9 0.01</td>
<td>12 -0.03</td>
<td>0.219</td>
<td>.42</td>
</tr>
<tr>
<td>20</td>
<td>10 0.14</td>
<td>12 -0.03</td>
<td>0.969</td>
<td>.17</td>
</tr>
<tr>
<td>21</td>
<td>11 0.05</td>
<td>12 -0.07</td>
<td>0.605</td>
<td>.28</td>
</tr>
<tr>
<td>22</td>
<td>8 0.05</td>
<td>12 0.06</td>
<td>-0.049</td>
<td>(neg.)</td>
</tr>
<tr>
<td>23</td>
<td>5 0.40</td>
<td>12 0.13</td>
<td>1.740</td>
<td>.05*</td>
</tr>
</tbody>
</table>

Average 1-23 8.57 .16 12 .10 .756 .23

*Significant at the .10 level for a one-tail test

¹Pretest AIQ item scores exceeding 4.7 were not analyzed.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
The mean listed in Table 3 represents the average perception held by principals of their superintendent's behavior. The number of superintendents listed for the experimental group varies because all the superintendents did not deem each item important to the perceptions of their behaviors. The number of superintendents listed for the control group is constant (twelve) because superintendents in this group did not differentiate between the importance of the AIQ items. Table 4 lists the AIQ items by number so that items listed in the tables can be identified. A further description of each item is furnished in the appendix.

Table 4

<table>
<thead>
<tr>
<th>AIQ Item Number and Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Verbal fluency</td>
</tr>
<tr>
<td>2. Consideration of others</td>
</tr>
<tr>
<td>3. Attitude toward his job</td>
</tr>
<tr>
<td>4. Technical competence</td>
</tr>
<tr>
<td>5. Achievement drive</td>
</tr>
<tr>
<td>6. Supportiveness</td>
</tr>
<tr>
<td>7. Flexibility</td>
</tr>
<tr>
<td>8. Performance under stress</td>
</tr>
<tr>
<td>9. Openness</td>
</tr>
<tr>
<td>10. Encouragement of staff participation</td>
</tr>
<tr>
<td>11. Ability to delegate responsibility</td>
</tr>
<tr>
<td>12. Innovativeness</td>
</tr>
<tr>
<td>13. Success in communicating expectations</td>
</tr>
<tr>
<td>14. Fairness</td>
</tr>
<tr>
<td>15. Maintenance of staff morale</td>
</tr>
<tr>
<td>16. Sense of humor</td>
</tr>
<tr>
<td>17. Decision-making ability</td>
</tr>
<tr>
<td>18. Evaluating ability</td>
</tr>
<tr>
<td>19. Managerial skill</td>
</tr>
<tr>
<td>20. Awareness</td>
</tr>
<tr>
<td>21. Self-control</td>
</tr>
<tr>
<td>22. Leadership skill</td>
</tr>
<tr>
<td>23. Appearance</td>
</tr>
</tbody>
</table>

The responses of the experimental and control participants to items eight (performance under stress), ten (encouragement of staff participation), sixteen (sense of humor), and twenty-three (appearance) were significantly different. This indicates that for
these four items superintendents' behaviors as perceived by principals changed significantly in a favorable manner. A comparison of the overall average of AIQ items one through twenty-three indicates no significant difference between the experimental and control groups. Based on the item analyses, the first hypothesis can only be accepted for items eight, ten, sixteen and twenty-three.

Note that for any mean that is below zero, on the average the superintendents were rated lower on the posttest. Therefore, the test comparisons for items four, five, thirteen, and fifteen are based on negative growth for each group.

Table 5 contains data analyzed using the proportion of change approach to test the first hypothesis. The method for calculating the proportion of change score was described in Chapter III. In brief, the proportion of change score approach uses the difference between the pre AIQ and ideal AIQ scores as the basic reference on which to base the growth from pre to post. The difference between the pre AIQ and post AIQ scores is then divided by the difference between the pre AIQ and ideal AIQ scores.

The N in Table 5 for the experimental group represents the number of superintendents who deemed principals' perceptions of their behavior on that item to be important and those whose principals' pre AIQ score did not exceed their ideal AIQ score. The N in Table 5 for the control group represents the number of superintendents whose principals' pre AIQ score did not exceed their ideal AIQ score. The mean in Table 5 represents the average of those principal responses used to measure each item. The analyses results

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Table 5

*t-Test Results for Proportion of Change Scores from Principal Feedback Via the AIQ

<table>
<thead>
<tr>
<th>AIQ Items</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>t Value</th>
<th>Significance Level 1 Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7  -0.53</td>
<td>8  0.40</td>
<td>-2.430</td>
<td>(neg.)</td>
</tr>
<tr>
<td>2</td>
<td>10 -0.34</td>
<td>10 0.15</td>
<td>-1.250</td>
<td>(neg.)</td>
</tr>
<tr>
<td>3</td>
<td>5  -0.16</td>
<td>7  0.26</td>
<td>-0.951</td>
<td>(neg.)</td>
</tr>
<tr>
<td>4</td>
<td>9  -0.48</td>
<td>8  0.00</td>
<td>-1.081</td>
<td>(neg.)</td>
</tr>
<tr>
<td>5</td>
<td>7  -0.15</td>
<td>11 -0.05</td>
<td>-0.212</td>
<td>(neg.)</td>
</tr>
<tr>
<td>6</td>
<td>9  -0.18</td>
<td>10 -0.30</td>
<td>0.247</td>
<td>0.40</td>
</tr>
<tr>
<td>7</td>
<td>10 -0.03</td>
<td>11 -0.17</td>
<td>0.531</td>
<td>0.30</td>
</tr>
<tr>
<td>8</td>
<td>8  0.18</td>
<td>10 0.16</td>
<td>0.040</td>
<td>0.48</td>
</tr>
<tr>
<td>9</td>
<td>9  -0.19</td>
<td>10 -0.76</td>
<td>0.496</td>
<td>0.31</td>
</tr>
<tr>
<td>10</td>
<td>8  0.37</td>
<td>7  -0.28</td>
<td>1.479</td>
<td>0.08*</td>
</tr>
<tr>
<td>11</td>
<td>7  0.55</td>
<td>12 0.37</td>
<td>0.359</td>
<td>0.36</td>
</tr>
<tr>
<td>12</td>
<td>6  0.35</td>
<td>9  0.07</td>
<td>1.171</td>
<td>0.13</td>
</tr>
<tr>
<td>13</td>
<td>11 -0.10</td>
<td>11 -0.20</td>
<td>1.427</td>
<td>0.08*</td>
</tr>
<tr>
<td>14</td>
<td>11 -0.04</td>
<td>12 0.30</td>
<td>-1.032</td>
<td>(neg.)</td>
</tr>
<tr>
<td>15</td>
<td>11 -0.93</td>
<td>11 -0.19</td>
<td>-0.873</td>
<td>(neg.)</td>
</tr>
<tr>
<td>16</td>
<td>7  -0.30</td>
<td>5  0.16</td>
<td>-0.917</td>
<td>(neg.)</td>
</tr>
<tr>
<td>17</td>
<td>10 0.07</td>
<td>9  0.72</td>
<td>-1.530</td>
<td>(neg.)</td>
</tr>
<tr>
<td>18</td>
<td>10 0.22</td>
<td>11 -0.07</td>
<td>1.136</td>
<td>0.13</td>
</tr>
<tr>
<td>19</td>
<td>10 -0.12</td>
<td>9  -0.18</td>
<td>0.192</td>
<td>0.43</td>
</tr>
<tr>
<td>20</td>
<td>10 -0.06</td>
<td>10 -0.34</td>
<td>1.621</td>
<td>0.06*</td>
</tr>
<tr>
<td>21</td>
<td>8  0.00</td>
<td>6  -0.07</td>
<td>0.169</td>
<td>0.43</td>
</tr>
<tr>
<td>22</td>
<td>8  -0.16</td>
<td>11 0.10</td>
<td>-0.580</td>
<td>(neg.)</td>
</tr>
<tr>
<td>23</td>
<td>5  1.24</td>
<td>2  0.50</td>
<td>1.028</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Average 1-23 8.52 -0.02 9.13 0.03 -0.411 (neg.)

*Significant at the .10 level for a one-tail test

In Table 5 indicate that the responses to items ten (encouragement of staff participation), thirteen (success in communicating expectations), and twenty (awareness) were significantly different. An overall comparison based on an average of AIQ items one through twenty-three revealed that there was no significant difference between the two groups. The first hypothesis can only be accepted.
for items ten, thirteen, and twenty using the proportion of change approach.

Item ten (encouragement of staff participation) was significant using either approach to analyze the data. Combining the two approaches used to analyze the data, superintendents’ behaviors as perceived by principals changed significantly on only six of the twenty-three AIQ items following feedback.

_t_ Test Results Based on School Board Member Feedback Via the AIQ

The second hypothesis was:

A superintendent will be given feedback based on school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

Table 6 contains _t_-test results relative to testing the second hypothesis using the amount of change approach. The N in Table 6 for the experimental group represents the number of superintendents who deemed the perceptions of their school board members on that item to be important to their behavior. The N for the control group is constant (eight) because superintendents in the control group did not differentiate between the importance of items. The mean represents the average response of school board members regarding their perceptions of their superintendent's behavior.

The analyses results from Table 6 indicate that the group responses to items ten (encouragement of staff participation),

---

1 Pretest AIQ item scores exceeding 4.7 were not analyzed.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
eighteen (evaluating ability), twenty (awareness), and twenty-three (appearance) were significantly different. A comparison of the group average of the AIQ items one through twenty-three revealed that there was no significant difference between the two groups. Based on the analyses results in Table 6, the second hypothesis can only be accepted for items ten, eighteen, twenty, and twenty-three.

Table 6

<table>
<thead>
<tr>
<th>AIQ items</th>
<th>EXPERIMENTAL</th>
<th>CONTROL</th>
<th>t Value</th>
<th>Significance Level 1 Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>-.04</td>
<td>8</td>
<td>.08</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>-.07</td>
<td>8</td>
<td>.19</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>.10</td>
<td>8</td>
<td>.21</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>-.12</td>
<td>8</td>
<td>.16</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>-.10</td>
<td>8</td>
<td>.15</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>-.08</td>
<td>8</td>
<td>-.16</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>.03</td>
<td>8</td>
<td>-.01</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>-.08</td>
<td>8</td>
<td>-.04</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>.15</td>
<td>8</td>
<td>-.19</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>.50</td>
<td>8</td>
<td>-.22</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>.00</td>
<td>8</td>
<td>.03</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>-.12</td>
<td>8</td>
<td>.28</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>.08</td>
<td>8</td>
<td>.16</td>
</tr>
<tr>
<td>14</td>
<td>6</td>
<td>-.10</td>
<td>8</td>
<td>-.14</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>-.15</td>
<td>8</td>
<td>.23</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>-.07</td>
<td>8</td>
<td>.19</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>.12</td>
<td>8</td>
<td>.08</td>
</tr>
<tr>
<td>18</td>
<td>6</td>
<td>.17</td>
<td>8</td>
<td>-.07</td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>-.12</td>
<td>8</td>
<td>.19</td>
</tr>
<tr>
<td>20</td>
<td>7</td>
<td>.31</td>
<td>8</td>
<td>.03</td>
</tr>
<tr>
<td>21</td>
<td>8</td>
<td>.13</td>
<td>8</td>
<td>.08</td>
</tr>
<tr>
<td>22</td>
<td>7</td>
<td>.00</td>
<td>8</td>
<td>-.02</td>
</tr>
<tr>
<td>23</td>
<td>3</td>
<td>.27</td>
<td>8</td>
<td>.01</td>
</tr>
</tbody>
</table>

Average

1-23 5.48 .07 8 .10 -.272 (neg.)

*Significant at the .10 level for a one-tail test

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
The data in Table 7 are based on the proportion of change approach to test the second hypothesis. The N in Table 7 for the experimental group represents the number of superintendents who deemed the perceptions of respondents on that item to be important and those whose pre AIQ score did not exceed their ideal AIQ score.

Table 7

<table>
<thead>
<tr>
<th>AIQ Items</th>
<th>EXPERIMENTAL N</th>
<th>Mean</th>
<th>CONTROL N</th>
<th>Mean</th>
<th>t Value</th>
<th>Significance Level 1 Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>.17</td>
<td>8</td>
<td>-.43</td>
<td>.694</td>
<td>.25</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>-.14</td>
<td>8</td>
<td>.61</td>
<td>-1.704</td>
<td>(neg.)</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>.28</td>
<td>6</td>
<td>.03</td>
<td>.196</td>
<td>.43</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>-.01</td>
<td>4</td>
<td>1.40</td>
<td>-1.801</td>
<td>(neg.)</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>-.36</td>
<td>6</td>
<td>.28</td>
<td>-1.262</td>
<td>(neg.)</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>-.36</td>
<td>5</td>
<td>-.61</td>
<td>.464</td>
<td>.33</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>-.05</td>
<td>7</td>
<td>-.28</td>
<td>.596</td>
<td>.28</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>-.21</td>
<td>8</td>
<td>-.01</td>
<td>-.527</td>
<td>(neg.)</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>.09</td>
<td>7</td>
<td>-.17</td>
<td>-.205</td>
<td>(neg.)</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>.83</td>
<td>7</td>
<td>-.52</td>
<td>1.434</td>
<td>.09*</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>.23</td>
<td>7</td>
<td>.16</td>
<td>.150</td>
<td>.44</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>-.29</td>
<td>7</td>
<td>.25</td>
<td>-1.200</td>
<td>(neg.)</td>
</tr>
<tr>
<td>13</td>
<td>7</td>
<td>.38</td>
<td>8</td>
<td>1.10</td>
<td>-.747</td>
<td>(neg.)</td>
</tr>
<tr>
<td>14</td>
<td>7</td>
<td>-.18</td>
<td>5</td>
<td>-.04</td>
<td>-.315</td>
<td>(neg.)</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>-.09</td>
<td>8</td>
<td>.29</td>
<td>-1.180</td>
<td>(neg.)</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>-.09</td>
<td>7</td>
<td>.64</td>
<td>-1.872</td>
<td>(neg.)</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>.32</td>
<td>6</td>
<td>.58</td>
<td>-.290</td>
<td>(neg.)</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>.12</td>
<td>6</td>
<td>.04</td>
<td>.362</td>
<td>.36</td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>-.12</td>
<td>6</td>
<td>.55</td>
<td>-3.725</td>
<td>(neg.)</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>.33</td>
<td>7</td>
<td>.13</td>
<td>.556</td>
<td>.30</td>
</tr>
<tr>
<td>21</td>
<td>6</td>
<td>.38</td>
<td>7</td>
<td>.10</td>
<td>.590</td>
<td>.28</td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>.05</td>
<td>5</td>
<td>-.09</td>
<td>.471</td>
<td>.33</td>
</tr>
<tr>
<td>23</td>
<td>2</td>
<td>.63</td>
<td>4</td>
<td>-.08</td>
<td>1.356</td>
<td>.12</td>
</tr>
</tbody>
</table>

Average 1-23 5.04 .08 6.48 .19 -.862 (neg.)

*Significant at the .10 level for a one-tail test
The mean represents the average response of school board members regarding their perceptions of their superintendent's behavior.

Using this approach, only the group responses to item ten (encouragement of staff participation) were significantly different. An overall comparison of AIQ items one through twenty-three revealed that there was no significant difference between the two groups. From the analyses results represented in Table 7, the second hypothesis can only be accepted for item ten.

Combining both approaches to the data analysis, superintendents' behaviors as perceived by school board members changed significantly for only four of the twenty-three AIQ items when they received feedback.

| Test Results Based on a Comparison of Principal and School Board Member Feedback Via the AIQ |

The third hypothesis was:

A superintendent will be given feedback based on both principals' and school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed more than principals' perceptions in the direction of the superintendent's ideal behavior.

Only superintendents in the experimental group (the group that received AIQ feedback) were used to test this hypothesis.

Table 8 contains analyses results based on the amount of change score approach to test the third hypothesis. The N in Table 8 for both principals and school board members represents the number of superintendents who deemed the perceptions of respondents on that
item to be important to their behavior. The mean represents the average response of principals and school board members.

### Table 8

<table>
<thead>
<tr>
<th>Item</th>
<th>BOARD MEMBERS</th>
<th>PRINCIPALS</th>
<th>t</th>
<th>Significance Level 1 Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>-.04</td>
<td>6</td>
<td>-.18</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>-.07</td>
<td>7</td>
<td>-.50</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>.10</td>
<td>3</td>
<td>-.20</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>-.12</td>
<td>6</td>
<td>-.15</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>-.10</td>
<td>4</td>
<td>.02</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>-.08</td>
<td>7</td>
<td>-.21</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>.03</td>
<td>7</td>
<td>-.14</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>-.08</td>
<td>5</td>
<td>-.10</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>-.15</td>
<td>6</td>
<td>-.22</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>.50</td>
<td>5</td>
<td>.24</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>.00</td>
<td>6</td>
<td>.39</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>-.12</td>
<td>5</td>
<td>.18</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>.08</td>
<td>6</td>
<td>-.13</td>
</tr>
<tr>
<td>14</td>
<td>6</td>
<td>-.10</td>
<td>7</td>
<td>.19</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>-.15</td>
<td>7</td>
<td>.61</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>-.07</td>
<td>6</td>
<td>-.07</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>.12</td>
<td>6</td>
<td>-.02</td>
</tr>
<tr>
<td>18</td>
<td>6</td>
<td>.17</td>
<td>6</td>
<td>.27</td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>-.12</td>
<td>6</td>
<td>.00</td>
</tr>
<tr>
<td>20</td>
<td>7</td>
<td>.31</td>
<td>7</td>
<td>.06</td>
</tr>
<tr>
<td>21</td>
<td>8</td>
<td>.13</td>
<td>7</td>
<td>-.19</td>
</tr>
<tr>
<td>22</td>
<td>7</td>
<td>.00</td>
<td>4</td>
<td>.00</td>
</tr>
<tr>
<td>23</td>
<td>3</td>
<td>.27</td>
<td>4</td>
<td>.30</td>
</tr>
</tbody>
</table>

**Average**

<table>
<thead>
<tr>
<th>AIQ Items</th>
<th>N</th>
<th>Mean</th>
<th>N</th>
<th>Mean</th>
<th>t</th>
<th>Significance Level 1 Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-23</td>
<td>5.48</td>
<td>.07</td>
<td>5.78</td>
<td>.05</td>
<td>.787</td>
<td>.43</td>
</tr>
</tbody>
</table>

Significant at the .10 level for a one-tail test.

The analyses indicate that school board members modified perceptions of their superintendents' behaviors significantly more.

---

1. Pretest AIQ item scores exceeding 4.7 were not analyzed.
than principals for items two (consideration of others), three (attitude toward his job), and twenty-one (self-control). The overall group averages of AIQ items one through twenty-three indicated that there was no significant difference in the principal and school board member change scores. Based on the amount of change score approach of analyzing the data, the third hypothesis can be accepted only for items two, three, and twenty-one.

Table 9 contains data analyzed to test the third hypothesis based on the proportion of change approach. The N in Table 9 for principals represents the number of superintendents who deemed perceptions of principals on that item to be important, and on which the principals' AIQ score did not exceed the ideal AIQ score. The N for school board members represents the number of superintendents who deemed school board members' perceptions on that item to be important, and on which the school board members' pre AIQ score did not exceed the ideal AIQ score. The mean in Table 9 represents the average response of principals or school board members.

As the analyses indicate, the responses to items one (verbal fluency), two (consideration of others), three (attitude toward his job), and twenty-one (self-control) were significantly different regarding school board members' perceptions. The overall average of AIQ items one through twenty-three indicated that school board members' perceptions changed significantly more than principals' perceptions. Based on the proportion of change approach to analyzing the data, the third hypothesis can be accepted for items one, two, three, and twenty-one. Based on the overall average of AIQ items
one through twenty-three, the third hypothesis also would be accepted.

### Table 9

$t$ Test Results for Proportion of Change Comparison of Response to Principal and School Board Member Feedback Via the AIQ

<table>
<thead>
<tr>
<th>AIQ Items</th>
<th>BOARD MEMBERS N</th>
<th>Mean</th>
<th>PRINCIPALS N</th>
<th>Mean</th>
<th>t Value</th>
<th>Significance Level</th>
<th>1 Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>.17</td>
<td>5</td>
<td>-.69</td>
<td>1.958</td>
<td>.04*</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>-.14</td>
<td>7</td>
<td>-1.12</td>
<td>1.551</td>
<td>.08*</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>.28</td>
<td>3</td>
<td>-.70</td>
<td>1.682</td>
<td>.08*</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>-.01</td>
<td>6</td>
<td>-.79</td>
<td>1.286</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>-.36</td>
<td>4</td>
<td>.05</td>
<td>-0.59</td>
<td>(neg.)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>-.36</td>
<td>6</td>
<td>-.22</td>
<td>-.276</td>
<td>(neg.)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>-.05</td>
<td>5</td>
<td>-.36</td>
<td>.615</td>
<td>.28</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>-.21</td>
<td>4</td>
<td>.09</td>
<td>-.765</td>
<td>(neg.)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>.09</td>
<td>6</td>
<td>-.16</td>
<td>.662</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>.83</td>
<td>5</td>
<td>.24</td>
<td>1.008</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>.23</td>
<td>5</td>
<td>.70</td>
<td>-0.902</td>
<td>(neg.)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>-.29</td>
<td>4</td>
<td>.50</td>
<td>0.083</td>
<td>(neg.)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>7</td>
<td>.38</td>
<td>6</td>
<td>.19</td>
<td>.530</td>
<td>.30</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>7</td>
<td>-.18</td>
<td>7</td>
<td>-.05</td>
<td>-.296</td>
<td>(neg.)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>-.09</td>
<td>7</td>
<td>-.37</td>
<td>1.133</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>-.09</td>
<td>5</td>
<td>-.80</td>
<td>1.058</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>.32</td>
<td>6</td>
<td>.00</td>
<td>.650</td>
<td>.31</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>.12</td>
<td>6</td>
<td>.78</td>
<td>-1.102</td>
<td>(neg.)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>-.12</td>
<td>6</td>
<td>-.24</td>
<td>.299</td>
<td>.39</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>.33</td>
<td>7</td>
<td>.16</td>
<td>.562</td>
<td>.29</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>6</td>
<td>.38</td>
<td>7</td>
<td>-.12</td>
<td>1.462</td>
<td>.08*</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>.05</td>
<td>5</td>
<td>-.31</td>
<td>.879</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>2</td>
<td>.63</td>
<td>3</td>
<td>1.17</td>
<td>-0.939</td>
<td>(neg.)</td>
<td></td>
</tr>
</tbody>
</table>

Average 1-23 5.04 .08 5.43 -.09 1.333 .10*

Significant at the .10 level for a one-tail test

Combining the two types of data analyses employed, superintendents' behaviors as perceived by principals and school board members changed significantly more toward school board members'
perceptions for four of the twenty-three AIQ items. Using the proportion of change approach to analyze the data, the overall average of AIQ items one through twenty-three indicated that superintendents' behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions than principals' perceptions.

Discussion of the t-Test Results Based on Principal Feedback Via the AIQ

The first hypothesis was:

A superintendent will be given feedback based on principals' perceptions of his real and ideal behaviors. Two months following the feedback, principals' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

Based on the amount of change approach of analyzing the data, superintendents' behaviors as perceived by principals changed significantly for items eight (performance under stress), ten (encouragement of staff participation), sixteen (sense of humor), and twenty-three (appearance) following feedback.

Item eight (performance under stress) deals with the ability of the superintendent to function effectively under pressure. An explanation for the group responses to item eight being significantly different is that although the opportunity to display behavior perceived as appropriate by principals might be less for this item, if a change does occur principals notice it. For example, if a superintendent usually becomes emotional and angry when under pressure at an administrative staff meeting, a change of behavior as perceived by principals regarding item eight would be noticeable.
The significance of item ten (encouragement of staff participation) can be explained based on the rationale that the act of having principals evaluate the superintendent via the AIQ is perceived as a means of staff participation. For example, principals had two opportunities to express their opinions concerning their superintendent's behavior, which they perceived as indicating that their superintendent was displaying behavior relative to staff participation.

Item sixteen (sense of humor) can be explained as being significant on the basis that changes in behaviors perceived by principals relative to displaying a sense of humor are readily observable, especially if the superintendent had initially been rated lower on this item.

Item twenty-three (appearance) would be relatively easy to change if a superintendent wanted to modify his image as perceived by principals on this item. An explanation for change on this item is that principals perceived that superintendents modified their grooming or attire.

Using the proportion of change approach to analyze the data, items ten (encouragement of staff participation), thirteen (success in communicating expectations), and twenty (awareness) were significantly different.

An explanation of change on item ten was offered in a preceding paragraph. Item thirteen (success in communicating expectations) deals with the superintendent's ability to inform principals of the expectations which he holds for them. This item also is concerned
with the superintendent's ability to communicate his expectations to his principals. A superintendent's behavior as perceived by principals could change on this item by the superintendent improving his communication skills, increasing his communications with principals, or specifying his expectations in a noticeable manner.

Item twenty (awareness) deals with the extent to which a superintendent is aware of problems at a principal's level. The feedback a superintendent received from his principals could have prompted him to behave in a manner perceived as becoming more aware of principals' problems.

Eight $t$ values were negative using the amount of change approach to analyze the data, and ten using the proportion of change approach. Thus, for numerous items, superintendents were rated lower on the posttest. Two explanations for this are that principals were more critical when they evaluated their superintendent the second time or that they were more familiar with the AIQ after they had once been exposed to the instrument.

Combining both approaches to the data analysis, at best, the superintendents' behaviors as perceived by principals changed significantly for six of the twenty-three AIQ items following feedback. Therefore, principals did not significantly modify perceptions of their superintendent's behavior for seventeen of the AIQ items.
Discussion of the t Test Results Based on School Board Member Feedback Via the AIQ

The second hypothesis was:

A superintendent will be given feedback based on school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

When superintendents received feedback from school board members, their behavior as perceived by school board members changed significantly for four items according to the amount of change approach to the data analysis. One item was significant using the proportion of change approach. Using either approach to analyze the data, twelve items had negative t values.

The amount of change approach revealed that the group responses to items ten (encouragement of staff participation), eighteen (evaluating ability), twenty (awareness), and twenty-three (appearance) were significantly different. The proportion of change approach indicated that response to item ten (encouragement of staff participation) was significantly different.

The fact that item ten (encouragement of staff participation) was significant can be explained on the basis that the school board members perceived the two evaluations which they made of their superintendent's behavior as an indicator of his encouragement to have them express their opinions. School board members are aware of their responsibility regarding evaluation of the superintendent, and it is possible that their expression of their superintendent's behavior was perceived by them as fulfilling this responsibility due
to the superintendent's encouragement. Item eighteen (evaluating ability) can be explained as being significant on the basis that the act of school board members evaluating their superintendent twice was perceived as an indication of the superintendent's objective evaluation of practices. Item twenty (awareness) can be explained as being significant based on the rationale that the feedback from school board members made the superintendent aware of school board members' problems and he thus modified his behavior as perceived by school board members so that he was viewed as being more aware of the school board members' problems. School board members' perceptions regarding item twenty-three (appearance) could be changed in a short period of time by a superintendent modifying his grooming and attire in a noticeable manner.

The fact that there were twelve negative $t$ values regardless of the approach used to analyze the data indicates that some school board members perceived their superintendent's behavior less favorable on the posttest. The AIQ is usually not used with school board members. Additionally, it could be that school board members evaluate their superintendent's behavior more critically the second time or that they were more familiar with the AIQ the second time they responded to it.

Discussion of $t$ Test Results Based on a Comparison of Principal and School Board Member Feedback Via the AIQ

The third hypothesis was:

A superintendent will be given feedback based on both principals' and school board members' perceptions of his
real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed more than principals' perceptions in the direction of the superintendent's ideal behavior.

The analyses represented in Table 8 indicate that when superintendents received feedback from principals and school board members based on the amount of change approach to the data analysis, their behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions for items two (consideration of others), three (attitude toward his job), and twenty-one (self-control).

Using the proportion of change approach, the analyses represented in Table 9 indicate that board members' perceptions changed significantly more for items one (verbal fluency), two (consideration of others), three (attitude toward his job), and twenty-one (self-control) than principals' perceptions. Using the overall average of AIQ items one through twenty-three analyzed by the proportion of change approach, the analysis indicates that school board members' perceptions changed significantly more than principals' perceptions.

Combining the results of both approaches to the data analysis, school board members' perceptions changed significantly more than principals' perceptions for four of the twenty-three AIQ items. This indicated that superintendents' behaviors as perceived by principals and school board members changed significantly more for school board members' perceptions (four items) than principals' perceptions (two items). Additionally, the proportion of change
approach revealed that when using the overall average of AIQ items one through twenty-three to compare school board members' and principals' perceptions, superintendents' behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions. Thus, the analyses indicate that more perceived behavioral change was displayed by school board members than by principals.

Summary

The purpose of the first hypothesis was to determine whether or not superintendents' behaviors as perceived by principals would change following feedback. Table 10 represents a summary of significant AIQ items regarding principals' perceptions. Based on the amount of change approach to the data analysis, superintendents' behaviors as perceived by principals change significantly for items eight (performance under stress), ten (encouragement of staff participation), sixteen (sense of humor), and twenty-three (appearance).

Table 10
Summary of Significant AIQ Items Based on Principals' Perceptions (Hypothesis One)

<table>
<thead>
<tr>
<th>Type of Data Analysis</th>
<th>Amount of Change</th>
<th>Proportion of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Performance Under Stress</td>
<td>10. Encouragement of Staff Participation</td>
<td></td>
</tr>
<tr>
<td>10. Encouragement of Staff Participation</td>
<td>13. Success in Communicating Expectations</td>
<td></td>
</tr>
<tr>
<td>23. Appearance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Using the proportion of change approach to analyze the data, superintendents' behaviors as perceived by principals changed significantly for items ten (encouragement of staff participation), thirteen (success in communicating expectations), and twenty (awareness). Based on the data analysis for the first hypothesis, superintendents' behaviors as perceived by principals changed significantly for six of the twenty-three AIQ items. Neither of the analyses from the two approaches revealed that the overall average of AIQ items one through twenty-three was significantly different. The first hypothesis can only be accepted for the six AIQ items which the results indicated were significantly different. Superintendents' behaviors as perceived by principals did not change significantly for the majority of the AIQ items when they received feedback.

The second hypothesis tested to determine if superintendents' behaviors as perceived by school board members changed significantly following feedback. Table 11 represents a summary of significant AIQ items regarding school board members' perceptions. The amount of change approach of data analysis indicated that the response to items ten (encouragement of staff participation), eighteen (evaluating ability), twenty (awareness), and twenty-three (appearance) were significantly different. The proportion of change approach revealed that the responses to items ten (encouragement of staff participation) were significantly different. Neither of the data analysis approaches revealed that the overall average of AIQ items one through twenty-three were significantly different. The analyses indicate that superintendents' behaviors as perceived
Table 11
Summary of Significant AIQ Items Based on School Board Members' Perceptions (Hypothesis Two)

<table>
<thead>
<tr>
<th>Type of Data Analysis</th>
<th>Amount of Change</th>
<th>Proportion of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Encouragement of Staff Participation</td>
<td></td>
<td>10. Encouragement of Staff Participation</td>
</tr>
<tr>
<td>18. Evaluating Ability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Appearance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

by school board members changed significantly for four of the twenty-three AIQ items following feedback. Based on these results, the second hypothesis can be accepted only for these four items. Superintendents' behaviors as perceived by school board members did not change significantly for the majority of the AIQ items following feedback.

Regardless of the approach used to analyze the data or the group doing the rating, superintendents' behaviors as perceived by both principals and school board members changed significantly for item ten (encouragement of staff participation).

The purpose of the third hypothesis was to determine if superintendents' behaviors as perceived by principals and school board members would change more toward school board members' perceptions than principals' perceptions. Table 12 represents a summary of significant AIQ items regarding the third hypothesis.

Using the amount of change score approach to analyze the data, superintendents' behaviors as perceived by principals and school
board members changed significantly more toward school board members' perceptions for items two (consideration of others), three (attitude toward his job), and twenty-one (self-control).

Table 12

Summary of Significant AIQ Items Based on a Comparison of Principals' and School Board Members' Perceptions (Hypothesis Three)

<table>
<thead>
<tr>
<th>Type of Data Analysis</th>
<th>Amount of Change</th>
<th>Proportion of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Consideration of Others</td>
<td>1. Verbal Fluency</td>
<td>2. Consideration of Others</td>
</tr>
<tr>
<td>3. Attitude Toward His Job</td>
<td>2. Consideration of Others</td>
<td>3. Attitude Toward His Job</td>
</tr>
</tbody>
</table>

The proportion of change approach to the data analysis revealed that for items one (verbal fluency), two (consideration of others), three (attitude toward his job), and twenty-one (self-control), superintendents' behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions than principals' perceptions. The overall average of AIQ items one through twenty-three based on the analysis using the proportion of change approach was significantly different.

Considering both approaches to the data analysis, superintendents' behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions for four of the twenty-three AIQ items. Therefore, the third hypothesis can be accepted for these four items. Additionally, the overall average
of AIQ items one through twenty-three based on the proportion of change approach was significantly different. Therefore, based on this result, the third hypothesis would be accepted.

The analyses indicate that for the most part, superintendents' behaviors as perceived by both principals and school board members did not change significantly following feedback for the majority of the AIQ items.
CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The Problem

The purpose of this study was to determine if superintendents' behaviors as perceived by principals and school board members changed following feedback.

A review of the literature supports the contention that the ideal method of evaluating a superintendent's behavior versus his effectiveness in accomplishing objectives would be to determine the relationship between his behavior and the accomplishments of the school system. Because of the numerous intervening independent variables, this is a most difficult task. A practical technique for evaluating the behavior of a superintendent is to use intermediate criteria in the form of a rating scale, such as the Administrator Image Questionnaire, as the basis for the evaluation. The AIQ provides a superintendent with feedback relative to how people perceive his behavior.

The results of an evaluation of a superintendent's perceived behavior furnish him with feedback relative to how people view his behavior. By having the feedback consist of how the superintendent is perceived as behaving and how he ideally should behave, the superintendent becomes knowledgeable as to the degree to which the perspectives held of his behavior need to be changed.
The specific problem which this study investigated was: Does a superintendent's behavior as perceived by principals and school board members change following feedback?

Hypotheses

The hypotheses investigated by this study were:

1. A superintendent will be given feedback based on principals' perceptions of his real and ideal behaviors. Two months following the feedback, principals' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

2. A superintendent will be given feedback based on school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed in the direction of his ideal behavior.

3. A superintendent will be given feedback based on both principals' and school board members' perceptions of his real and ideal behaviors. Two months following the feedback, school board members' perceptions of the superintendent's real behavior will have significantly changed more than principals' perceptions in the direction of the superintendent's ideal behavior.

The superintendency was selected as the administrative position to be studied because of the status leadership accorded the superintendent position. The behavior of the superintendent, possibly more than any single individual, has a direct effect on the success of the school system. Feedback was selected as the independent variable because of its potential for modifications of perceptions held of a superintendent's behavior. The dependent variable, superintendent's perceived behavior, was studied because of the importance of the superintendent's perceived behavior relative to the success of the school system.
General Design

Superintendents from the Michigan counties of Saginaw, Genesee, Shiawassee, and Oakland were asked to participate in the study. Twenty-four superintendents from these four counties in Southeastern Michigan participated. These twenty-four superintendents represent basically white, middle-class districts with a student enrollment of less than 10,000.

The twenty-four superintendents were randomly assigned to either a control or experimental group. Principals and school board members of superintendents rated how they perceived their superintendent's behavior and how they believed he ideally should behave. The Administrator Image Questionnaire, developed by the Educator Feedback Center at Western Michigan University, served as the criterion measure. This instrument contains twenty-three items relative to a superintendent's behavior. Superintendents in the experimental group received feedback of the AIQ results, whereas superintendents in the control group did not receive feedback. After two months, principals and board members again rated their superintendent's behavior. Those items which a superintendent deemed important to his perceived behavior were identified to determine if his behavior as perceived by principals and school board members significantly changed following feedback. The means of each of the twenty-three AIQ items and the overall mean of items one through twenty-three were compared to determine if responses differed significantly between the experimental and control groups. The $t$ test was used to compare the item means and overall means.
Findings

The results of the data analyses testing the three hypotheses were presented in Chapter IV. The findings are summarized as follows:

1. The amount of change approach to the data analysis revealed that when superintendents received feedback from principals, their behaviors as perceived by principals changed significantly for items eight (performance under stress), ten (encouragement of staff participation), sixteen (sense of humor), and twenty-three (appearance). The overall comparison of the average of AIQ items one through twenty-three revealed that there was no significant difference between the experimental and control groups.

2. The proportion of change approach to the data analysis revealed that when superintendents received feedback from their principals, their behaviors as perceived by principals changed significantly for items ten (encouragement of staff participation), thirteen (success in communicating expectations), and twenty (awareness). The overall comparison of the average of AIQ items one through twenty-three revealed that there was no significant difference between the experimental and control groups.

3. The amount of change approach to the data analysis revealed that when superintendents received feedback from school board members, their behaviors as perceived by school board members changed significantly for items ten (encouragement of staff participation), eighteen (evaluating ability), twenty (awareness), and twenty-three (appearance). The overall comparison of the average
of AIQ items one through twenty-three revealed that there was no significant difference between the experimental and control groups.

4. The proportion of change approach to the data analysis revealed that when superintendents received feedback from school board members, their behaviors as perceived by school board members changed significantly for item ten (encouragement of staff participation). The overall comparison of the average of AIQ items one through twenty-three revealed that there was no significant difference between the experimental and control groups.

5. Regardless of the approach used to analyze the data or the group doing the rating, superintendents' behaviors as perceived by principals and school board members changed significantly for item ten (encouragement of staff participation) when they received feedback.

6. The amount of change approach to the data analysis revealed that when superintendents received feedback from principals and school board members, their behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions than principals' perceptions for items two (consideration of others), three (attitude toward his job), and twenty-one (self-control). The overall comparison of the average of AIQ items one through twenty-three revealed that there was no significant difference between the school board members and principals groups.

7. The proportion of change approach to the data analysis revealed that when superintendents received feedback from principals
and school board members, their behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions than principals' perceptions for items one (verbal fluency), two (consideration of others), three (attitude toward his job), and twenty-one (self-control). The overall comparison of AIQ items one through twenty-three revealed that superintendents' behaviors as perceived by principals and school board members changed significantly more toward school board members' perceptions than principals' perceptions.

Conclusions

The following conclusions are based on the preceding findings:

1. When superintendents received feedback from their principals, their behaviors as perceived by principals did not change significantly for a majority of the AIQ items.

2. When superintendents received feedback from the school board members, their behaviors as perceived by school board members did not change significantly for a majority of the AIQ items.

3. When superintendents received feedback from both principals and school board members, their behaviors as perceived by principals and school board members did not change significantly more toward school board members' perceptions for a majority of the AIQ items.

4. The proportion of change approach to the data analysis revealed that based on the overall comparison of the average of AIQ items one through twenty-three, superintendents' behaviors as perceived by principals and school board members changed significantly
more toward school board members' perceptions than principals' perceptions.

Festinger's theory of dissonance would support the belief that superintendents would attempt to have their real behaviors viewed similarly to their ideal behaviors. This statement is based on the proposition that the difference between the real and ideal behaviors creates dissonance which superintendents would attempt to reduce. It would appear that if principals and school board members did change their perceptions, a superintendent did change his behavior in such a way as to cause a change in the perceptions of principals and school board members.

Riesman's discussion in The Lonely Crowd of the inner-directed man would furnish rationale as to why superintendents did not modify perceptions of their behaviors following feedback. The inner-directed man (superintendent) would not be extremely concerned with the perceptions people hold of his behavior. Conversely, the other-directed man (superintendent) would be concerned with the perceptions people hold of his behavior and thus would attempt to change these perceptions.

Skinner's philosophy that the behavior of an individual is contingent upon the reinforcement he receives from the environment in which he lives is related to this study. If superintendents viewed the difference between the real and ideal perceptions of principals and school board members regarding their behaviors as not being reinforcing, then they would attempt to reduce this difference. Behaving in a manner which would result in principals
and school board members perceiving their real behaviors similarly to their ideal behaviors would result in superintendents receiving reinforcement.

Conversely, it could be that superintendents viewed the difference between their real and ideal behaviors as reinforcing, and thus did not see a need to change the perceptions held of their real behaviors. This statement is based on the belief that the difference between superintendents' real and ideal behaviors was viewed as minimal by the superintendents and thus was perceived by them as reinforcing.

It is possible that superintendents are placed in a conflict situation in that they believe that their real behaviors are proper, but also believe that they should behave in a manner congruent with how other people believe they should behave.

Recommendations for Further Research

This study allowed two months for principals and school board members to modify their perceptions of the superintendent's behavior. Studies need to be conducted which measure perceived behavior change of a superintendent over various periods of time.

One study could consist of identifying those superintendents or administrators who have used the services of the Educator Feedback Center at Western Michigan University on a repetitive basis. This would allow for a measurement of change regarding the perceptions held of a superintendent over a period of one or more years.
A second study could use an extremely short period of time for perceived behavioral change to occur. A superintendent could be given feedback from a group based on his performance in a simulated setting, and then have the group again measure his performance in a similar simulated setting after he has had an hour to review his feedback.

A third study could be to repeat the present study with the addition of a performance check to determine if superintendents did attempt to modify perceptions of their behaviors in terms of the AIQ feedback.

A fourth study could be to determine the relationship between the type of feedback and change in the perceptions held of a school administrator's behavior.
APPENDIX A

INSTRUMENTS

Administrator Image Questionnaire Real Form
Administrator Image Questionnaire Ideal Form
Administrator Image Profile
REAL FORM-ADMINISTRATOR IMAGE QUESTIONNAIRE

The purpose of the Administrator Image Questionnaire Real Form is for you to indicate how you believe your superintendent actually does behave.

Please respond to the following questions honestly and frankly. Do not give your name: All responses are anonymous. Neither the superintendent about whom these questions are asked nor anyone else will ever be able to associate your responses with you.

Your responses, along with responses of others from your group, will be analyzed and an image profile representing how your superintendent is perceived along several dimensions by your group will be given to him. The profile is given to no one else unless so requested by your superintendent.

Circle the response which represents your reaction to each question. Be sure to circle only one response for each question.

Remember, you are to indicate how you believe your superintendent actually does behave.

WHAT IS YOUR OPINION CONCERNING YOUR SUPERINTENDENT'S:

1. VERBAL FLUENCY: (Does he express his ideas smoothly? Is he articulate?) . . . . poor fair average good excellent

2. CONSIDERATION OF OTHERS: (Is he patient, understanding, considerate and courteous?) . . . . . . poor fair average good excellent

3. ATTITUDE TOWARD HIS JOB: (Does he show interest and enthusiasm toward his work?) . . . . . . poor fair average good excellent

4. TECHNICAL COMPETENCE: (Does he have a thorough knowledge and understanding of his field?) . . . . . . . poor fair average good excellent

5. ACHIEVEMENT DRIVE: (Does he have the initiative and persistence needed to accomplish meaningful goals?) . poor fair average good excellent
6. SUPPORTIVENESS: (Does he support those responsible to him?) . . . . . . . poor fair average good excellent

7. FLEXIBILITY: (Is he able to adjust rapidly to changes in plans and procedures?) . . poor fair average good excellent

8. PERFORMANCE UNDER STRESS: (How does he function under pressure?) . . . . poor fair average good excellent

9. OPENNESS: (Does he consider divergent views?) . . . . poor fair average good excellent

10. ENCOURAGEMENT OF STAFF PARTICIPATION: (Does he encourage you to raise questions and express opinions?) . . . . . . . poor fair average good excellent

11. ABILITY TO DELEGATE RESPONSIBILITY: (Does he assign tasks to personnel capable of carrying them out?) . . poor fair average good excellent

12. INNOVATIVENESS: (Is he willing to try new approaches or methods?) . . . . . . . poor fair average good excellent

13. SUCCESS IN COMMUNICATING EXPECTATIONS: (Does he clearly define and explain what is expected of staff members?) . . . . . . . poor fair average good excellent

14. FAIRNESS: (Does he treat staff members in an unbiased and impartial manner?) . . poor fair average good excellent

15. MAINTENANCE OF STAFF MORALE: (Does he create a feeling of unity and enthusiasm among those in contact with him?) poor fair average good excellent

16. SENSE OF HUMOR: (Does he have a sense of the ridiculous? Does he laugh at his own mistakes?) . . . . . . poor fair average good excellent
17. DECISION-MAKING ABILITY:  
(Does the evidence indicate that he is able to make constructive decisions?) poor fair average good excellent

18. EVALUATING ABILITY: (To what extent does he objectively evaluate programs and practices?) poor fair average good excellent

19. MANAGERIAL SKILL: (Does he coordinate the efforts of those responsible to him so that the organization operates at peak efficiency?) poor fair average good excellent

20. AWARENESS: (To what extent is he conscious of the problems that exist on your level?) poor fair average good excellent

21. SELF-CONTROL: (Does he maintain control of his emotions when things are not going right?) poor fair average good excellent

22. LEADERSHIP SKILL: (Does his leadership result in the attainment of mutually acceptable goals?) poor fair average good excellent

23. APPEARANCE: (Are his grooming and attire in good taste?) poor fair average good excellent

(The Administrator Image Questionnaire was developed by the Educator Feedback Center, Western Michigan University.)
The purpose of the Administrator Image Questionnaire Ideal Form is for you to indicate how you believe a superintendent should ideally behave.

Please respond to the following questions honestly and frankly. Do not give your name: All responses are anonymous. Neither the superintendent about whom these questions are asked nor anyone else will ever be able to associate your responses with you.

Your responses, along with responses of others from your group, will be analyzed and an image profile representing how your superintendent is perceived along several dimensions by your group will be given to him. The profile is given to no one else unless so requested by your superintendent.

Circle the response which represents your reaction to each question. Be sure to circle only one response for each question.

Remember, you are to indicate how you believe a superintendent should ideally behave.

WHAT IS YOUR OPINION CONCERNING THE IDEAL SUPERINTENDENT'S:

1. VERBAL FLUENCY: (Does he express his ideas smoothly? Is he articulate?) . . . poor fair average good excellent

2. CONSIDERATION OF OTHERS: (Is he patient, understanding, considerate and courteous?) . . . . . . . poor fair average good excellent

3. ATTITUDE TOWARD HIS JOB: (Does he show interest and enthusiasm toward his work?) . . . . . . . . . . . . . . poor fair average good excellent

4. TECHNICAL COMPETENCE: (Does he have a thorough knowledge and understanding of his field?) . . . . . . . . . . . . . . poor fair average good excellent

5. ACHIEVEMENT DRIVE: (Does he have the initiative and persistence needed to accomplish meaningful goals?) . poor fair average good excellent
6. SUPPORTIVENESS: (Does he support those responsible to him?) . . . . . . . . . . . . . poor fair average good excellent

7. FLEXIBILITY: (Is he able to adjust rapidly to changes in plans or procedures?) . . poor fair average good excellent

8. PERFORMANCE UNDER STRESS: (How does he function under pressure?) . . . . poor fair average good excellent

9. OPENNESS: (Does he consider divergent views?) . . . . poor fair average good excellent

10. ENCOURAGEMENT OF STAFF PARTICIPATION: (Does he encourage you to raise questions and express opinions?) . . . . . . . . . . . . poor fair average good excellent

11. ABILITY TO DELEGATE RESPONSIBILITY: (Does he assign tasks to personnel capable of carrying them out?) . . poor fair average good excellent

12. INNOVATIVENESS: (Is he willing to try new approaches or methods?) . . . . . . . poor fair average good excellent

13. SUCCESS IN COMMUNICATING EXPECTATIONS: (Does he clearly define and explain what is expected of staff members?) . . . . . . . . . . . . poor fair average good excellent

14. FAIRNESS: (Does he treat staff members in an unbiased and impartial manner?) . . poor fair average good excellent

15. MAINTENANCE OF STAFF MORALE: (Does he create a feeling of unity and enthusiasm among those in contact with him?) poor fair average good excellent

16. SENSE OF HUMOR: (Does he have a sense of the ridiculous? Does he laugh at his own mistakes?) . . . . . . . . poor fair average good excellent
17. DECISION-MAKING ABILITY: (Does the evidence indicate that he is able to make constructive decisions?) poor fair average good excellent

18. EVALUATING ABILITY: (To what extent does he objectively evaluate programs and practices?) poor fair average good excellent

19. MANAGERIAL SKILL: (Does he coordinate the efforts of those responsible to him so that the organization operates at peak efficiency?) poor fair average good excellent

20. AWARENESS: (To what extent is he conscious of the problems that exist on your level?) poor fair average good excellent

21. SELF-CONTROL: (Does he maintain control of his emotions when things are not going right?) poor fair average good excellent

22. LEADERSHIP SKILL: (Does his leadership result in the attainment of mutually acceptable goals?) poor fair average good excellent

23. APPEARANCE: (Are his grooming and attire in good taste?) poor fair average good excellent

(The Administrator Image Questionnaire was developed by the Educator Feedback Center, Western Michigan University.)
## ADMINISTRATOR IMAGE PROFILE

### Ref. Group

| Scale Steps | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Excellent   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.9         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.8         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.7         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.6         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.5         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.4         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.3         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.2         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4.1         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Good        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.9         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.8         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.7         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.6         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.5         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.4         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.3         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.2         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3.1         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Average     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.9         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.8         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.7         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.6         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.5         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.4         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.3         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.2         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2.1         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Fair        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.9         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.8         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.7         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.6         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.5         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.4         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.3         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.2         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 1.1         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Poor        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

### KEY TO ITEMS

1. Verbal Fluency  
2. Consideration of Others  
3. Attitude Toward Job  
4. Technical Competence  
5. Achievement Drive  
6. Supportiveness  
7. Flexibility  
8. Performance under Stress  
9. Openness  
10. Staff Participation  
11. Delegate Responsibility  
12. Innovativeness  
13. Communicating  
14. Fairness  
15. Staff Morale  
16. Sense of Humor  
17. Decision-Making  
18. Evaluating Ability  
19. Administrative Skill  
20. Awareness  
21. Self-Control  
22. Leadership Skill  
23. Appearance  
24. Average of 1-23

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
APPENDIX B

INSTRUCTIONS

Directions for Superintendents
Instructions for School Board Members
Instructions for Principals
Instructions for Superintendents—Final Phase—Control Group
Instructions for Superintendents—Final Phase—Feedback Group
Instructions for School Board Members—Final Phase
Instructions for Principals—Final Phase
DIRECTIONS FOR SUPERINTENDENTS

In the event that clarification is necessary regarding certain aspects of the study, I have listed several of the most important phases of the study below.

The researcher will give the superintendent two packets. Each packet contains questionnaires, instructions, and a self-addressed, stamped envelop. The superintendent is to give one packet to his principals (assistant principals are included) and one packet to his school board members.

Each member of the respective groups is to complete the questionnaire. There are two parts to the questionnaire, an ideal and a real portion. The superintendent is to ask one member of each group to mail the completed questionnaires to the researcher.

The study has been designed so that there are two groups of superintendents. Depending on which of the two groups a superintendent has been assigned to, he will receive feedback of the results immediately after the results are tabulated or in two months.

Two months after a superintendent's principals and school board members initially responded to the questionnaire, they will again respond to the real portion of the questionnaire.

If a superintendent did not receive feedback of the results after his principals and school board members initially responded to the questionnaire, he will receive feedback at this time.

NOTE—The researcher cannot identify the questionnaire of an individual respondent by the markings at the top of the questionnaire. The purpose of the markings is to allow the researcher to note which specific reference group and school the questionnaire has come from when it is returned to the researcher by mail. All feedback given to superintendents is by reference group only (either school board members or principals), and no feedback pertaining to the responses of individual principals or board members will be given to the superintendent.

If at any time a superintendent has any questions, he should feel free to contact me. My phone number is 694-7329. If this is a long distance call, please call collect.

Thank You.

Dave Bartz
621 Reid Rd., Apt. 11
Grand Blanc, MI. 48439
INSTRUCTIONS FOR SCHOOL BOARD MEMBERS

Each available member of your group is to respond to the questionnaire. There are two parts to the questionnaire, and each part contains directions for its completion.

I am asking one member of your group to be responsible for returning the questionnaire to me by mail after all available members have responded. A self-addressed, stamped envelop has been provided, but in case it has been misplaced, my address is:

Dave Bartz  
621 Reid Rd., Apt. 11  
Grand Blanc, Michigan 48439

The purpose of the markings at the top of any questionnaire is merely for me to note which school a respondent represents. I cannot identify any respondent's questionnaire by the markings.

If you have any difficulties, please feel free to contact me.

Thank You.

Dave Bartz  
Mott Intern, Western Michigan University
INSTRUCTIONS FOR PRINCIPALS

Each available member of your group is to respond to the questionnaire. There are two parts to the questionnaire, and each part contains directions for its completion.

I am asking one member of your group to be responsible for returning the questionnaire to me by mail after all available members have responded. A self-addressed, stamped envelope has been provided, but in case it has been misplaced, my address is:

Dave Bartz
621 Reid Rd., Apt. 11
Grand Blanc, Michigan 48439

The purpose of the markings at the top of any questionnaire is merely for me to note which school a respondent represents. I cannot identify any respondent’s questionnaire by the markings.

If you have any difficulties, please feel free to contact me.

Thank You.

Dave Bartz
Mott Intern, Western Michigan University

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
INSTRUCTIONS FOR SUPERINTENDENTS
RESEARCH STUDY-FINAL PHASE
CONTROL GROUP

The final phase of the study consists of again giving the Administrator Image Questionnaire Real Form to your principals and board members.

The purpose of giving the AIQ Real Form again is to determine whether or not your principals and board members have changed their views of your behavior since they initially responded to the questionnaire. Please emphasize to your principals and board members that although they previously responded to the questionnaire, it is important that they respond to it again.

As soon as I receive the results of the final phase, I will give you your feedback.

YOU SHOULD GIVE THE ADMINISTRATOR IMAGE QUESTIONNAIRE

*NOTE— REAL FORM POST MEASURE TO YOUR PRINCIPALS AND BOARD
MEMBERS APPROXIMATELY THE WEEK OF ______________________

It should be noted that only principals and board members who chose to participate in the first phase of the study should participate in the final phase.

If any problems should arise, please contact me at 694-6329.

Thank You.

Dave Bartz
INSTRUCTIONS FOR SUPERINTENDENTS
RESEARCH STUDY-FINAL PHASE
FEEDBACK GROUP

When you have received feedback of the results of the way in which your principals and school board members view your real and ideal behavior, the first phase of the study has been completed.

The final phase of the study consists of giving the Administrator Image Questionnaire Real Form to your principals and board members approximately two months after you have received your feedback. It should be remembered that the purpose for giving the AIQ Real Form again is that it is the post or after measure for the study.

YOU SHOULD GIVE THE ADMINISTRATOR IMAGE QUESTIONNAIRE REAL

*NOTE— FORM POST MEASURE TO YOUR PRINCIPALS AND BOARD MEMBERS

APPROXIMATELY THE WEEK OF ________________________________

It should be noted that only principals and board members who chose to participate in the first phase of the study should participate in the final phase.

If any problems should arise, please contact me at 694-6329.

Thank You.

Dave Bartz
INSTRUCTIONS FOR SCHOOL BOARD MEMBERS
RESEARCH STUDY—FINAL PHASE

This is the final phase of a research study which began earlier in the school year.

Each available member of your group who participated in the first phase of the research study is asked to respond to the questionnaire again.

I am asking one member of your group to be responsible for returning the questionnaire to me by mail after all available members have responded. A self-addressed, stamped envelop has been provided, but in case it has been misplaced, my address is:

Dave Bartz
621 Reid Rd., Apt. 11
Grand Blanc, Michigan 48439

The purpose of the markings at the top of any questionnaire is merely for me to note which group and school a respondent represents. I cannot identify any respondent's questionnaire by these markings.

If you have any difficulties, please feel free to contact me.

Thank You.

Dave Bartz
Mott Intern, Western Michigan University
INSTRUCTIONS FOR PRINCIPALS
RESEARCH STUDY—FINAL PHASE

This is the final phase of a research study which began earlier in
the school year.

Each available member of your group who participated in the first
phase of the research study is asked to respond to the questionnaire
again.

I am asking one member of your group to be responsible for returning
the questionnaire to me by mail after all available members have
responded. A self-addressed, stamped envelop has been provided, but
in case it has been misplaced, my address is:

Dave Bartz
621 Reid Rd., Apt. 11
Grand Blanc, Michigan 48439

The purpose of the markings at the top of any questionnaire is
merely for me to note which group and school a respondent represents.
I cannot identify any respondent's questionnaire by these markings.

If you have any difficulties, please feel free to contact me.

Thank You.

Dave Bartz
Mott Intern, Western Michigan University
APPENDIX C

ADMINISTRATOR IMAGE QUESTIONNAIRE VALIDITY AND RELIABILITY INFORMATION

98
Hansen in his study *An Investigation of Selected Variables Related to the Rating of School Administrator Effectiveness* discussed the validity of the AIQ when he stated:

This instrument [AIQ] was developed by personnel associated with the Educator Feedback Center at Western Michigan University to provide feedback to administrators. The AIQ measures individual perceptions of administrator attitudes, understandings, skills, and behavior. Individual ratings are combined to form a group rating which is presented in a profile.¹

Hansen continued:

Literature available from the Center (Educator Feedback Center, 1970) indicates that the AIQ measures group reaction to characteristics of an administrator utilizing process criteria. The profile compiled from the AIQ represents perceptions about an administrator's attitudes, understandings, skills, and behavior and is not necessarily a direct measure of actual attitudes, understandings, skills, and behavior.²

Hansen used a factor analysis to determine the number and nature of factors measured by the AIQ, and concluded that 71 percent of the variance was accounted for by one factor which he labeled *general evaluative factor*.³

---


² Ibid.

³ Ibid., p. 55.
In reference to the reliability of the AIQ, chance-half coefficients from the different scaled items ranged from .82 to .93.¹

¹Educator Feedback Center, Western Michigan University, "Interpreting and Utilizing Your Administrator Image Profile," Kalamazoo, Michigan, 1970, p. 3. (Mimeographed)
APPENDIX D

SIZE OF PARTICIPATING SCHOOL DISTRICTS
### SIZE OF PARTICIPATING SCHOOL DISTRICTS

<table>
<thead>
<tr>
<th>District Number</th>
<th>Estimated 1971-72 Enrollment</th>
<th>District Number</th>
<th>Estimated 1971-72 Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9,000</td>
<td>13</td>
<td>3,300</td>
</tr>
<tr>
<td>2</td>
<td>8,300</td>
<td>14</td>
<td>3,100</td>
</tr>
<tr>
<td>3</td>
<td>6,800</td>
<td>15</td>
<td>3,100</td>
</tr>
<tr>
<td>4</td>
<td>5,900</td>
<td>16</td>
<td>2,800</td>
</tr>
<tr>
<td>5</td>
<td>5,700</td>
<td>17</td>
<td>2,600</td>
</tr>
<tr>
<td>6</td>
<td>5,700</td>
<td>18</td>
<td>2,500</td>
</tr>
<tr>
<td>7</td>
<td>5,300</td>
<td>19</td>
<td>2,300</td>
</tr>
<tr>
<td>8</td>
<td>5,300</td>
<td>20</td>
<td>2,200</td>
</tr>
<tr>
<td>9</td>
<td>4,900</td>
<td>21</td>
<td>2,200</td>
</tr>
<tr>
<td>10</td>
<td>3,700</td>
<td>22</td>
<td>2,100</td>
</tr>
<tr>
<td>11</td>
<td>3,700</td>
<td>23</td>
<td>1,300</td>
</tr>
<tr>
<td>12</td>
<td>3,500</td>
<td>24</td>
<td>800</td>
</tr>
</tbody>
</table>
Books


Halpin, Andrew W. *The Leadership Behavior of School Superintendents*. Columbus, Ohio: The Ohio State University, 1956.


Jenkins, David H., and Blackman, Charles A. *Antecedents and Effects of Administrative Behavior.* Columbus, Ohio: University Press, The Ohio State University, 1956.


**Periodicals**


Church, Harold H. "How Shall Superintendents Be Judged?" Nation's Schools, VI (May, 1950), 32-33.


Dissertations


Unpublished Materials


Educator Feedback Center, Western Michigan University. "Interpreting and Utilizing Your Administrator Image Profile." Kalamazoo, Michigan, 1970. ( Mimeographed.)