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VOCATIONAL TEACHER PERCEPTIONS OF THEIR LOCUS OF CONTROL, JOB SATISFACTION, AND SUPERINTENDENT LEADER BEHAVIOR IN CENTRAL OHIO JOINT VOCATIONAL SCHOOLS

The Ohio State University

Ph.D. 1985

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VOCATIONAL TEACHER PERCEPTIONS OF THEIR
LOCUS OF CONTROL, JOB SATISFACTION, AND SUPERINTENDENT
LEADER BEHAVIOR IN CENTRAL OHIO JOINT VOCATIONAL SCHOOLS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Alan R. Kohan, B.S., M.Ed.

The Ohio State University

1985

Reading Committee:  Approved By

Dr. Dewey A. Adams  Dewey A. Adams

Dr. Larry E. Miller  Adviser

Dr. N. L. McCaslin  Comprehensive Vocational Education
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VITA

November 29, 1949.............................................. Born—Dayton, Ohio

1968................................................................. Graduated, Xenia High School
Xenia, Ohio

1972................................................................. B. S., Industrial Technology
Miami University
Oxford, Ohio

1972-1974......................................................... Peace Corps Volunteer
Vocational Education Teacher
Marshall Islands High School
Majuro, Marshall Islands

1974-1976.......................................................... Electronics Technician
Defense Electronics Supply Center
Dayton, Ohio

1976-1978.......................................................... Vocational Education Teacher
Marshall Islands High School
Majuro, Marshall Islands

1979................................................................. M. Ed., Curriculum and Instruction
University of Hawaii
Honolulu, Hawaii

1979-1981.......................................................... Electronics Instructor
Micronesian Occupational College
Koror, Palau
Western Caroline Islands
1981-1982............................Dean of Instruction
Micronesian Occupational College
Koror, Palau
Western Caroline Islands

1982........................................Graduate Research Associate
(Temporary Assignment)
The National Center for Research
in Vocational Education
The Ohio State University
Columbus, Ohio

1983........................................Graduate Research Associate
College of Education
Department of Vocational-Technical
Education
The Ohio State University
Columbus, Ohio

1983-1985............................Graduate Research Associate
Evaluation and Policy Division
The National Center for Research
in Vocational Education
The Ohio State University
Columbus, Ohio
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS.......................................................................................</td>
</tr>
<tr>
<td>VITA................................................................................................................</td>
</tr>
<tr>
<td>LIST OF TABLES..................................................................................................</td>
</tr>
<tr>
<td>LIST OF FIGURES..................................................................................................</td>
</tr>
<tr>
<td>CHAPTER</td>
</tr>
<tr>
<td>I. INTRODUCTION..........................................................................................</td>
</tr>
<tr>
<td>Statement of the Problem............................................................................</td>
</tr>
<tr>
<td>Purpose of the Study...................................................................................</td>
</tr>
<tr>
<td>Research Hypotheses...................................................................................</td>
</tr>
<tr>
<td>Definition of Terms.....................................................................................</td>
</tr>
<tr>
<td>Delimitations of the Study..........................................................................</td>
</tr>
<tr>
<td>Limitations of the Study............................................................................</td>
</tr>
<tr>
<td>Assumption of the Study.............................................................................</td>
</tr>
<tr>
<td>Significance of the Study...........................................................................</td>
</tr>
<tr>
<td>Leadership Research Perspective...........................................................</td>
</tr>
<tr>
<td>Effective Schools Research Perspective...................................................</td>
</tr>
<tr>
<td>Chapter Summary and Overview of the Study.............................................</td>
</tr>
<tr>
<td>II. REVIEW OF LITERATURE............................................................................</td>
</tr>
<tr>
<td>Approaches to Leadership Research..........................................................</td>
</tr>
<tr>
<td>Trait Approach..............................................................................................</td>
</tr>
<tr>
<td>Behavioral Approach....................................................................................</td>
</tr>
<tr>
<td>Situational Approach...................................................................................</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS (Continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Framework</td>
<td>38</td>
</tr>
<tr>
<td>The Ohio State Leadership Studies</td>
<td>38</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>45</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>51</td>
</tr>
<tr>
<td>Effective Schools Research</td>
<td>55</td>
</tr>
<tr>
<td>Conceptualization of the Theoretical Framework</td>
<td>60</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>62</td>
</tr>
<tr>
<td>III. METHODOLOGY OF THE STUDY</td>
<td>65</td>
</tr>
<tr>
<td>Research Design</td>
<td>65</td>
</tr>
<tr>
<td>Subject Selection</td>
<td>70</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>74</td>
</tr>
<tr>
<td>Leader Behavior Description Questionnaire-Form XII</td>
<td>75</td>
</tr>
<tr>
<td>Rotter Internal-External Control Scale</td>
<td>77</td>
</tr>
<tr>
<td>Job Descriptive Index</td>
<td>78</td>
</tr>
<tr>
<td>Data Collection</td>
<td>79</td>
</tr>
<tr>
<td>Analysis of Data</td>
<td>84</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>85</td>
</tr>
<tr>
<td>IV. ANALYSIS OF DATA</td>
<td>86</td>
</tr>
<tr>
<td>Characteristics of Respondents</td>
<td>87</td>
</tr>
<tr>
<td>Characteristics of Respondents by Age</td>
<td>91</td>
</tr>
<tr>
<td>Characteristics of Respondents by Gender</td>
<td>92</td>
</tr>
<tr>
<td>Characteristics of Respondents by Highest Educational Level Achieved</td>
<td>93</td>
</tr>
<tr>
<td>Characteristics of Respondents by Years Teaching</td>
<td>94</td>
</tr>
<tr>
<td>Characteristics of Respondents by Years at Present School</td>
<td>95</td>
</tr>
<tr>
<td>Description of Instrument Data</td>
<td>97</td>
</tr>
<tr>
<td>Reliability of Instruments</td>
<td>98</td>
</tr>
<tr>
<td>Skewness and Kurtosis</td>
<td>98</td>
</tr>
<tr>
<td>2x2x2 Cell Characteristics</td>
<td>100</td>
</tr>
<tr>
<td>Independent t-tests</td>
<td>103</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS (Continued)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing of Hypotheses</td>
<td>105</td>
</tr>
<tr>
<td>Three-Way Interaction Hypothesis</td>
<td>105</td>
</tr>
<tr>
<td>Two-Way Interaction Hypotheses</td>
<td>112</td>
</tr>
<tr>
<td>Main Effect Hypotheses</td>
<td>120</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>124</td>
</tr>
</tbody>
</table>

## V. SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>127</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>127</td>
</tr>
<tr>
<td>Hypotheses of the Study</td>
<td>129</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>131</td>
</tr>
<tr>
<td>Methodology of the Study</td>
<td>132</td>
</tr>
<tr>
<td>Findings and Conclusions</td>
<td>134</td>
</tr>
<tr>
<td>Implications and Recommendations</td>
<td>141</td>
</tr>
<tr>
<td>Other Recommendations</td>
<td>154</td>
</tr>
</tbody>
</table>

## APPENDIXES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The Twelve Central Ohio Joint Vocational Schools</td>
<td>158</td>
</tr>
<tr>
<td>B. Leader Behavior Description Questionnaire-Form 12</td>
<td>160</td>
</tr>
<tr>
<td>C. Rotter Internal-External Scale</td>
<td>163</td>
</tr>
<tr>
<td>D. Job Descriptive Index</td>
<td>168</td>
</tr>
<tr>
<td>E. The Questionnaire</td>
<td>172</td>
</tr>
<tr>
<td>F. Data Collection Correspondence</td>
<td>181</td>
</tr>
</tbody>
</table>

## REFERENCES CITED

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCES CITED</td>
<td>190</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table                                      Page
1. Major Approaches to Leadership..............25
2. Summary of Situational Model................33
3. Selected Criticisms of the Situational Leadership Theories........35
4. Frequency and Percent of Questionnaires Returned by Wave Activity.................................89
5. Frequency and Percentage of Respondents by Service Area Teaching Position........................90
6. Mean Ages and Standard Deviations of Respondents by Service Area Teaching Position...............91
7. Frequency and Percentage of Respondents by Service Area Teaching Position and Gender............92
8. Frequency and Percentage of Respondents by Service Area and Highest Educational Level Achieved.................................94
9. Mean Years of Vocational Teaching Experience by Service Area...........................................95
10. Mean Teaching Years of Respondents at Present School by Service Area..................................96
11. Cronbach Standardized Item Alpha Coefficients by Variables........99
LIST OF TABLES (Continued)

<table>
<thead>
<tr>
<th>Table Number</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.</td>
<td>Instrument Mean Scores and Standard Deviations by Variables</td>
<td>100</td>
</tr>
<tr>
<td>13.</td>
<td>Level I Marginals by Variables</td>
<td>102</td>
</tr>
<tr>
<td>14.</td>
<td>Level II Marginals by Variables</td>
<td>102</td>
</tr>
<tr>
<td>15.</td>
<td>Summary of t-test Results by Independent Variable Levels</td>
<td>104</td>
</tr>
<tr>
<td>16.</td>
<td>Summary of the Three-Way Analysis of Variance</td>
<td>106</td>
</tr>
<tr>
<td>17.</td>
<td>Matrix of Three-Way Factorial Cell Means</td>
<td>108</td>
</tr>
<tr>
<td>18.</td>
<td>Consideration and Initiating Structure Matrix of Cell Means</td>
<td>113</td>
</tr>
<tr>
<td>19.</td>
<td>Initiating Structure and Locus of Control Matrix of Cell Means</td>
<td>116</td>
</tr>
<tr>
<td>20.</td>
<td>Consideration and Locus of Control Matrix of Cell Means</td>
<td>118</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A Quadrant Framework for Describing Leader Behavior on the Consideration and Initiating Structure Dimensions</td>
<td>41</td>
</tr>
<tr>
<td>2.</td>
<td>Conceptualization of the Theoretical Framework</td>
<td>61</td>
</tr>
<tr>
<td>3.</td>
<td>Schematic Diagram of the Research Design</td>
<td>67</td>
</tr>
<tr>
<td>4.</td>
<td>Cell Size, Total Job Satisfaction Mean Score, and Standard Deviation of Respondents Above and Below the Mean on the Consideration, Initiating Structure, and Locus of Control Variables</td>
<td>101</td>
</tr>
<tr>
<td>5.</td>
<td>Plot of Three-Way Interaction</td>
<td>109</td>
</tr>
<tr>
<td>6.</td>
<td>Plot of Cell Means for Consideration and Initiating Structure Matrix</td>
<td>114</td>
</tr>
<tr>
<td>7.</td>
<td>Plot of Cell Means for Initiating Structure and Locus of Control Matrix</td>
<td>116</td>
</tr>
<tr>
<td>8.</td>
<td>Plot of Cell Means for Consideration and Locus of Control Matrix</td>
<td>119</td>
</tr>
<tr>
<td>9.</td>
<td>Plot of Consideration Main Effect</td>
<td>121</td>
</tr>
<tr>
<td>10.</td>
<td>Plot of Locus of Control Main Effect</td>
<td>123</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Leadership is pivotal to the success of vocational education. During the 1975 National Leadership Development Seminar for State Directors of Vocational Education, a task force, in describing the essential features of effective vocational education, stated:

The soundness of the program philosophy, the comprehensiveness of goals and objectives, the appropriateness of program standards, and the degree to which vocational education is effective are dependent upon the quality of state and local leadership and instructional personnel. A supply of competent personnel is vital to program success (Koble, Newton, and Lewis, 1976, p. 126).

Miller and Adams (1977) recognized the importance of leadership in vocational education when they stated: "The quality of vocational education depends on the quality of its leadership" (p. 1). The United States Congress also recognized the need for competent leadership in vocational education when it passed the Education Professions Development Act, Part F—Training and Development Programs for Vocational Education Personnel (P.L. 90-576). Specifically, Section 552
of this Act, Leadership Development Awards, stated, in part:

In order to meet the needs in all of the States for qualified vocational education personnel (such as administrators, supervisors, teacher educators, researchers, and instructors in vocational education programs) the Commissioner shall make available leadership development awards in accordance with the provisions of this part. . . . Title II, Part F, Section 552).

Later, Part F was continued in the Education Amendments of 1976 (P.L. 94-482) under the title: Training and Development Programs for Vocational Education Personnel.

Moreover, the National Center for Research in Vocational Education (NCRVE) also acknowledged the importance of vocational education leadership. Watkins (1980) quoted Robert Taylor, the Executive Director of the NCRVE:

In developing the original plans for the National Center for Vocational Education, there was recognition of the need for a national leadership development program to be offered through such an organization. This dimension was further reinforced by a resolution by the AVA House of Delegates in 1963, calling for the establishment of a national research and advanced study center (p. 14).

The Carl D. Perkins Vocational Education Act (P.L. 98-524) reaffirmed the need for vocational education leadership when Congress mandated that the NCRVE continue to be operated. With regard to leadership, the Act stated in part:
The National Center shall—

.... "2 provide leadership development through an advanced study center and Inservice education activities for State and local leaders in vocational education; (Title IV, Part A, Section 404).

At about the same time that the Carl D. Perkins Vocational Education Act was enacted, the National Commission on Secondary Vocational Education (1984) also emphasized the essential role of leadership in vocational education when they asserted: "Effective leadership at local, state, and federal levels is central to improving and expanding vocational education" (p. 27).

Although action has been taken to fulfill the need for competent leaders in vocational education, the concept of leadership has remained elusive. In fact, Burns (1978), as quoted in Bass (1981; p. 5) stated: "Leadership is one of the most observed and least understood phenomenon on earth." Therefore, if the future success of vocational education depends on its leadership, then more needs to be understood about this evasive and complex leadership phenomena, especially as it functions within the vocational education setting.
Statement of the Problem

Limited research was found that investigated the relationships of leader behavior, subordinate locus of control, and subordinate job satisfaction in the formal organization. In the research that has been conducted (Pryer and Distefano, 1971; Runyon, 1973; Evans, 1974; Mitchell, Smyser, and Weed, 1975), the findings indicated, in general, that subordinates with an internal locus of control were more satisfied under a considerate style of leadership; while subordinates with an external orientation were more satisfied under a directive style of leadership. Surprisingly, while subordinate locus of control may be a significant personality factor influencing leader behavior and subordinate job satisfaction perceptions (House, 1971; Durand and Nord, 1976; Anderson and Schneier, 1978; Christie, 1981; Decaro, 1983; and Pirzadeh, 1984), there have been no studies conducted in the vocational education setting that have investigated the interactive effects of subordinate locus of control with leader behavior on subordinate job satisfaction.

Specifically, if Ohio joint vocational school superintendents are to strive for school-site leadership improvement, an understanding of the interactions between superintendent leader behavior and locus of control on job satisfaction as perceived by their vocational teachers appeared to
be a logical and essential prerequisite. However, these interactive effects were not known. Until these interactive effects were determined and understood, efforts to improve leadership within the joint vocational school may have been problematic. Therefore, the problem was how to ameliorate this problematic situation so that school-site joint vocational school leadership could be enhanced.

**Purpose of the Study**

The purpose of this study was to determine the leadership behaviors of joint vocational school superintendents in Ohio as perceived by their vocational teachers and to examine interactive effects between this perceived leadership behavior and vocational teacher locus of control on job satisfaction. In essence, this study was an investigation of the interactions between leadership style and the personality variable locus of control on vocational teacher teacher job satisfaction. As a result of this study, the researcher hoped that a better understanding of the complex interactions between supervisor and subordinates could be gained. Once determined, these interactions provided implications for improving school-site leadership within the joint vocational school setting.
Research Hypotheses

The following research hypotheses were tested at an alpha level of .05:

1. There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being on one of the following leadership dimensions:

   (a) High Consideration-High Initiating Structure (HC-HIS)
   (b) High Consideration-Low Initiating Structure (HC-LIS)
   (c) Low Consideration-High Initiating Structure (LC-HIS)
   (d) Low Consideration-Low Initiating Structure (LC-LIS)

   In effect, this hypothesis stated that there will be no significant three-way interaction between the variables consideration, initiating structure, and locus of control on job satisfaction.

2. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of consideration from those who perceive their superintendent as being either low or high on the leadership dimension of initiating structure.

   In effect, this hypothesis stated that there will be no significant two-way interaction between the variables consideration and initiating structure on job satisfaction.
3. There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of initiating structure.

In effect, this hypothesis stated that there will be no significant two-way interaction between the variables locus of control and initiating structure on job satisfaction.

4. There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of consideration.

In effect, this hypothesis stated that there will be no significant two-way interaction between the variables locus of control and consideration on job satisfaction.

5. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being high on the leadership dimension of consideration from those who perceive their superintendent as being low on the leadership dimension of consideration.

In effect, this hypothesis stated that there will be no significant main effect for the leadership dimension of consideration.
6. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being high on the leadership dimension of initiating structure from those who perceive their superintendent as being low on the leadership dimension of initiating structure.

In effect, this hypothesis stated that there will be no significant main effect for the leadership dimension of initiating structure.

7. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who are internally controlled and those who are externally controlled.

In effect, this hypothesis stated that there will be no significant main effect for the personality dimension of locus of control.

**Definition of Terms**

The following terms had a significant meaning in this study.

**Consideration (C).** "Reflects the extent to which an individual is likely to have job relationships characterized by mutual trust, respect for subordinate's ideas, and consideration of their feelings. A high score is indicative of a climate of good rapport and two-way communication. A low score indicates the supervisor is likely to be more impersonal in his relations with group members" (Fleishman and Peters, 1962, p. 130). The
Leader Behavior Description Questionnaire-Form XII (Stogdill, 1963) was used in this study to measure the consideration dimension of leadership behavior.

**Initiating Structure (IS).** "Reflects the extent to which an individual is likely to define and structure his role and those of his subordinates toward goal attainment. A high score on this dimension characterizes individuals who play a more active role in directing group activities through planning, communicating information, scheduling, trying out new ideas, etc." (Fleishman and Peters, 1962, p. 130). The Leader Behavior Description Questionnaire-Form XII (Stogdill, 1963) was used in this study to measure the initiating structure dimension of leadership behavior.

**HC-HIS Leader.** This is a leader who is perceived by his or her subordinates as being high on both dimensions of leader behavior. To be classified high in consideration and high in initiating structure (HC-HIS), the Leader Behavior Description Questionnaire-Form XII (LBDQ-12) score needed to be above the mean on both leader behavior dimensions.

**HC-LIS Leader.** This is a leader who is perceived by his or her subordinates as being high in consideration and low in initiating structure (HC-LIS). To be classified HC-LIS, the LBDQ-12 score needed to be above the mean on the consideration dimension and below the mean on the
initiating structure dimension.

**HIS-LC Leader.** This is a leader who is perceived by his or her subordinates as being high in initiating structure and low in consideration (HIS-LC). To be classified HIS-LC, the LBDQ-12 score needed to be above the mean on the initiating structure dimension and below the mean on the consideration dimension.

**LC-LIS Leader.** This is a leader who is perceived by his or her subordinates as being low on both dimensions of leader behavior. To be classified low in consideration and low in initiating structure (LC-LIS), the LBDQ-12 score needed to be below the mean on both leader behavior dimensions.

**Job Satisfaction.** "Job satisfaction is the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values" (Locke, 1969, p. 316). The Job Descriptive Index (JDI) developed by Smith, Kendall, and Hulin (1969) was used to measure vocational teacher job satisfaction in this study.

**Locus of Control (LocCon).** Locus of control is concerned with a continuum of associations between decision outcomes and personal behaviors, attributes, or capacities. At the lower end of the continuum are internals who believe that reinforcements are contingent upon their own
behavior. At the upper end of the continuum, externals believe that reinforcements are not under their personal control but rather are under the control of powerful others, luck, or fate" (Anderson and Schneier, 1978, p. 691). Therefore, those vocational teachers who see what happens to them as being caused by their own behavior are classified as having an internal locus of control. Vocational teachers who believe what happens to them was caused by luck or chance were classified as having an external locus of control. Internal-external control of reinforcement was measured in this study by the Rotter Internal-External Control Scale (I-E Scale).

**Delimitations of the Study**

The boundary for this investigation was delimited to joint vocational school districts in the state of Ohio that have their respective vocational schools located within a 60 mile radius of Columbus, Ohio. Moreover, only full-time vocational teachers from these schools were utilized in this study. Attempts to generalize the results of this study beyond this boundary are not advised.
Limitations of the Study

The study was limited to the perceptions of vocational teachers toward superintendent leader behavior on the leadership dimensions of consideration and initiating structure and to vocational teacher perceptions of their own locus of control and job satisfaction. Given the limitations of time and financial resources of this researcher, a random sample of joint vocational school teachers was selected for this study. No attempt was made to investigate how joint vocational school superintendents view themselves on the two leader behavior dimensions. Furthermore, academic teachers, counselors, directors, and non-certified personnel were not utilized in this study.

In essence, the research was exploratory. The purpose of this investigation was to explore and analyze interactions between consideration, initiating structure, and the personality variable locus of control on the attitudes of vocational teachers toward their work. Understandings gained by this investigation provided direction for the formulation of more specific research hypotheses for use in future research. Since this research was exploratory and nonexperimental, cause-and-effect inferences were not tenable.
Finally, while the study observed relationships between the leaders and followers that might have a bearing on leadership quality assessment, the study did not attempt to determine or compare superintendent leadership quality within the joint vocational schools.

Assumption of the Study

The accessible population of this study was determined by information obtained from the State of Ohio Department of Education, Division of Vocational Education. An assumption was made that the information provided to this researcher was correct, thus ameliorating any possible frame error.

Significance of the Study

The rationale for the justification of this study was inherent in two main research perspectives: a leadership research perspective and an effective schools research perspective.

Leadership Research Perspective. Unlike business and industry, state vocational education departments have allocated little of their human and financial resources to the understanding of the relationships between leaders and their subordinates. While business and industry have been
vigorously undertaking leader-subordinate research for many years, there is a scarcity of such research pertaining to the vocational education setting. Furthermore, much of what has been learned from business and industry leadership research may not be totally generalizable to vocational education schools. Business and industry engage primarily in free enterprise activities; whereas vocational schools are products of non-profit, governmental agencies. In addition, production and quality criteria, by and large, are more distinctly defined in business and industry than they are in vocational schools. Therefore, any leadership inferential leaps from business and industry to the vocational education school setting may lead to unanticipated consequences. Hence, given the uncertainties of the relationships between vocational school leaders and their subordinates, the assertion that leadership studies in the vocational education setting needed to be undertaken seemed logical.

Much of the organizational leadership studies have investigated the relationships of leadership styles (e.g., consideration and initiating structure) and subordinate performance and job satisfaction (Greene, 1975). However, few studies have investigated the relationships of subordinate perceptions of leader behavior and subordinate perceptions of their locus of control and job satisfaction. Several scholars (Runyon,
1973; Durand and Nord, 1976; Anderson and Schneier, 1978; Christie, 1981; Decaro, 1983; Pirzadeh, 1984) concurred that the personality dimension, locus of control, may be an important factor in the supervisor-subordinate relationship and that future leadership investigations in this area may be fruitful. However, a review of the literature discovered that no studies focused their investigations on the interactive effects of leader behavior, subordinate locus of control, and subordinate job satisfaction in the vocational education school setting.

In an effort to fill this leadership research void, this study attempted to identify the interactive effects between joint vocational school superintendent leader behavior and vocational teacher locus of control on job satisfaction as perceived by joint vocational school vocational teachers. If it can be found, for instance, that superintendents with a considerate orientation were associated with internally controlled vocational teachers who had high job satisfaction; and superintendents with an initiating structure orientation were associated with externally controlled vocational teachers who had high job satisfaction, then such findings would underscore the importance of locus of control on the leader-subordinate relationship.
Moreover, such findings would suggest, for example, that superintendents should behave in a considerate manner toward internally controlled vocational teachers and in a directive manner toward externally controlled vocational teachers. In essence, results of this study would provide joint vocational school superintendents with insights on how they could improve their leader-subordinate relationship. Likewise, those involved in vocational education leadership development may find the results of this study beneficial to their leadership development strategies.

Therefore, this study was significant from a leadership research perspective in that the knowledge learned about the interactive effects of leader behavior, subordinate locus of control, and subordinate job satisfaction suggested implications for improving joint vocational school leadership; which in turn, suggested that joint vocational school effectiveness would be enhanced. In addition, from a leadership research methodological view, this study was unique in that the major variables under study were incorporated into a three-way factorial design; thus allowing for a focused investigation for possible interactive effects. Prior research efforts that included these variables had not investigated for possible three-way interactions.
Effective Schools Research Perspective. Inherent in the effective schools research literature (Phi Delta Kappa, 1980; Morris, 1981; Hathaway, 1982; Mackenzie, 1983; Goodlad, 1984; Purkey and Smith, 1984) was agreement on the importance of the school-site leader in facilitating school improvement. For example, Hathaway (1982) stated:

Principals represent the organizational authority of the school, and in that regard, they serve to symbolize what the school stands for, how it will operate, and what is important. In general, they set the educational tone for the school. The research on effective schools, effective educational innovations, and effective strategies for planning change all points to the principal as a singularly important person in the successful social system (p. 16).

Moreover, Mackenzie (1983), after reviewing the school effectiveness literature, identified leadership, efficacy, and efficiency as three major dimensions of effective schools. In reference to leadership, Mackenzie posited:

Conditions for efficacy and efficiency depend on leadership. . . . Principals can obstruct or facilitate the process of school reform enough to determine whether anything happens or not (McCarthy et al., 1980). Thus most observers come down on the side of the principal as a key actor, particularly in setting policy. . . . Instructional leadership can and should be encouraged throughout the school community, but principals are in a key position to provide consistent and continuous leadership to set a tone of order and purpose for the school as a whole (p. 11).
Although the effective schools literature, by and large, focused on schooling in general, the importance of the leadership role of the joint vocational school superintendent is commensurate to that of the role of the principal. In essence, both individuals are in the topmost school-site leadership position and, thus, both can facilitate or impede the school improvement process. Moreover, their leader behavior is interpreted by their subordinates as substantive impressions of leadership quality. Since quality principal leadership is strongly associated with teacher satisfaction (Morris, 1981), the assertion that superintendents of joint vocational schools are also key elements in the job satisfaction of their vocational teachers seemed logical. Therefore, from an effective schools research perspective, this study appeared justifiable and essential.

Benefits that emerged from this study that pertained to joint vocational school effectiveness included the following:

1. Research results and their implications had practical value for those responsible for improving joint vocational schools;

2. The conclusions and recommendations of this study, while they were not prescriptions for improving joint vocational schools, suggested potential alternatives for leadership improvement that superintendents of joint vocational schools can explore;
3. Implications for further leadership research and for modifying current preservice and inservice leadership training practice for vocational education personnel were suggested; and

4. Results of this study can be tested in each joint vocational school setting without having to be concerned with research designs, rigorous controls, and inferential statistics. Thus, this study attempted to link leadership theory and the day-to-day leadership practice of joint vocational school superintendents.

**Chapter Summary and Overview of the Study**

Chapter I, introduction to the research, included the following sections: (1) the essential role of leadership in vocational education; (2) statement of the problem; (3) purpose of the study; (4) research hypotheses; (5) definition of terms; (6) delimitations of the study; (7) limitations of the study; (8) assumption of the study; (9) significance of the study; and (10) chapter summary and overview of the study.

The role of leadership in vocational education was noted as being pivotal to the success of vocational education. While there have been numerous local, state, and Federal vocational education leadership development efforts, leadership has remained an elusive and complex
concept. Since the future success of vocational education depends on its leadership, the urgent need to understand more about how this phenomena functions in the vocational education setting was emphasized.

Limited research was found that investigated the variables of leader behavior, locus of control, and job satisfaction as perceived by subordinates in the formal organization. Although there were a preponderance of studies that have investigated leader behavior and job satisfaction, the personality dimension of locus of control has not received similar attention, despite the fact that it may be a significant personality factor influencing the leader-subordinate relationship. No studies were found that investigated these variables in the vocational school setting.

Seven research hypotheses designed to test for interactions between the leader behavior dimensions of consideration and initiating structure and locus of control on job satisfaction were formulated for application in the joint vocational school. Since no studies of this nature have been conducted in the joint vocational school, this research was considered significant in that it expanded the knowledge and understanding of the relationships between joint vocational school superintendents and their vocational teachers. As a result of this study,
implications for improving joint vocational school-site leadership emerged; which, in turn, had implications for improving school effectiveness.

The remainder of this study was presented in four chapters. Chapter II included a review of the literature and theoretical framework. The methodology of the study was presented in Chapter III. In Chapter IV, the analysis of data was presented. Chapter V included the summary, implications, and recommendations.
The subject of leadership has been a fascinating topic of discussion among all cultures for centuries (Bass, 1981). Throughout time, virtually everyone has had his or her behavior, attitudes, or beliefs affected by someone in a leadership position. Likewise, virtually every person in a leadership position has had his or her behavior, attitudes, or beliefs affected by follower influence. Perhaps the reciprocal nature of the leader-follower influence process inherent in the concept of leadership has preserved the enigmatic nature of the concept. Moreover, the very nature of the leadership enigma appeared to have provided the stimulus needed for leadership researchers and practitioners to persist in advancing their investigation and reconceptualization efforts toward the goal of understanding more about this complex phenomena.

Yukl (1981) noted, as do authors of most introductory textbooks on organizational behavior, that it was not until the twentieth century that
scientific research on leadership began. During the twentieth century, leadership research evolved from studies that focused on traits that characterized effective leaders, to studies that focused on leadership style, and then to studies that integrated leadership style and situational factors (Szilagyi and Wallace, 1980). These three evolutionary phases usually were designated in the organizational behavior literature as the trait approach, behavioral approach, and situational approach to the study of leadership, respectively. As a result of these approaches, numerous models and theories of leadership have emerged. However, "no universally accepted theoretical framework of leadership has been developed" (Szilagyi and Wallace, 1980, p. 274). Nonetheless, Szilagyi and Wallace asserted that leadership is recognized as one of the most important factors affecting organizational performance.

Therefore, the review of literature for this study focused on the identification of leadership concepts and principles from the field of organizational behavior to provide the theoretical framework for investigating and analyzing leader-follower relationships between Ohio joint vocational school superintendents and their vocational teachers. Specifically, this study attempted to answer the following question: What are the interactive effects of the leader behavior of joint vocational
school superintendents and vocational teacher locus of control on vocational teacher job satisfaction as perceived by Ohio joint vocational school vocational teachers? Furthermore, since this review of literature was guided by selected concepts and principles, this review did not attempt to present an exhaustive literature overview of the leadership phenomena.

The review of literature was comprised of two major sections. The first section focused on the approaches to leadership research. The second section pertained to the theoretical framework from which the research hypotheses emerged. A summary of the review concluded the chapter.

Approaches to Leadership Research

In the study of leadership, three major approaches were identified in the leadership research literature: trait approaches, behavioral approaches, and situational approaches. Table 1 provided a summary description of each approach emphasis. Since comprehensive reviews of these approaches already exist (Stogdill, 1948, 1974; Bass, 1981), and since most introductory texts on organizational behavior (e.g., Mitchell, 1982; Baron, 1983) provided overviews of these leadership approaches, a
Table 1
Major Approaches to the Study of Leadership

<table>
<thead>
<tr>
<th>APPROACH</th>
<th>EMPHASIS</th>
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<tbody>
<tr>
<td>Trait</td>
<td>There exists a finite set of individual traits or characteristics that can be used to distinguish successful from unsuccessful leaders.</td>
</tr>
<tr>
<td>(1940's-50's)</td>
<td></td>
</tr>
<tr>
<td>Behavioral</td>
<td>The most important aspect of leadership is not the traits of the leader but what the leader does in various situations. Successful leaders are distinguished from unsuccessful leaders by their particular leadership style.</td>
</tr>
<tr>
<td>(1950's-60's)</td>
<td></td>
</tr>
<tr>
<td>Situational</td>
<td>The effectiveness of a leader is not only determined by his or her style of behavior but also by the situation surrounding the leadership environment. Situational factors include the characteristics of the leader and the subordinate, and nature of the task, the structure of the group, and the type of the reinforcement.</td>
</tr>
<tr>
<td>(1970's)</td>
<td></td>
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</table>

repeat of their reviews was not required. However, a recapitulation of the criticisms and positive outcomes of each approach would advance understanding of the leadership concept. Therefore, in the following three subsections on leadership research approaches, the focus was on assessing each approach so that evidence for a theoretical framework for this study could appear.

**Trait Approach.** Prior to the 1950's, leadership research, by and large, focused on the identification of personality traits that characterized effective leaders. The general approach in the majority of these studies was "to compare leaders with nonleaders to see what differences existed with respect to physical characteristics, personality, and ability" (Yukl, 1981, p.67). In a comprehensive review of 124 trait studies conducted between 1904 and 1948, Stogdill (1948) concluded:

A person does not become a leader by virtue of the possessions of some combination of traits, but the pattern of personal characteristics of the leader must bear some relevant relationship to the characteristics, activities, and the goals of the followers (p.64).

Stogdill also noted that leadership traits tended to differ with the situation in that a leader who was effective in one situation may be ineffective in a different situation. Moreover, Anderson and Schneier (1978) noted that "most experts have concluded that the search for key
personality traits, which dominated early leadership research (see Stogdill, 1948) was of marginal productivity" (p. 690).

Recently, there has been a renewed interest in the study of personality factors in leadership. In a second comprehensive review of 163 trait studies conducted between 1949 and 1970, Stogdill (1974) noted a shift in the previous approach to the study of leadership traits. Specifically, methodology and measurement became more sophisticated. Bass (1981) observed that theory guided much of the data collection in these studies and that the "one-variable-at-a-time experiment gave way to the factorial and multivariate experiment" (p.74). As an outcome of this improvement in research methodology, results tended to be more consistent across the second set of trait studies. In fact, Stogdill, as quoted in Bass (1981), posited:

The leader is characterized by a strong drive for responsibility and task completion, vigor and persistence in the pursuit of goals, venturesomeness and originality in problem solving, drive to exercise initiative in social situations, self-confidence and sense of personal identity, willingness to accept consequences of decision and action, readiness to absorb interpersonal stress, willingness to tolerate frustration and delay, ability to influence other persons' behavior, and capacity to structure social interaction systems to the purpose at hand (p. 81).

Perhaps Yukl (1981) best summarized the findings of the 1974 review by Stogdill:
However, Stogdill makes it clear that recognition of the relevance of leader traits is not a return to the original trait approach. The old assumption that "leaders are born" has been discredited completely, and the premise that certain leader traits are absolutely necessary for effective leadership has never been substantiated in several decades of trait research. Today there is a more balanced viewpoint about traits. It is now recognized that certain traits increase the likelihood that a leader will be effective, but they do not guarantee effectiveness, and the relative importance of different traits is dependent on the nature of the leadership situation (p. 70).

At about the same time of the review by Stogdill, Fleisham (1973) stated: "Twenty years ago the pendulum in leadership research took a sharp swing away from the view of leadership as a personality trait, but I believe it is time to revive interest in this view" (p. 182). Moreover, Durand and Nord (1976, p. 427) noted that "Beer (1966), Dessler (1974), and Evans (1974) have reported that personality characteristics of subordinates may act as moderator variables in the relationship of initiation of structure to performance." Even Stogdill concluded that there was a need for leadership research that included personality factors (Kerr, Schriesheim, Murphy, and Stogdill, 1974).

Szilagyi and Wallace (1980), in a summary of the trait approach to leadership research, concluded:

.... focusing on individual traits does not show what the individual actually does in a leadership situation. Traits
identify who the leader is, not the behavioral patterns he or she will exhibit in attempting to influence subordinate actions. The trait approach has ignored the subordinate and his or her effect on leadership. Influence is the relationship between two or more people; therefore, focusing on one part only of the influence relationship provides an incomplete view of the leadership process (pp. 282-283).

This discontentment with the trait approach to leadership research signalled the need for leadership researchers to focus their efforts on the behavior of the leader. Thus, the behavioral approach to leadership research was born.

**Behavioral Approach.** Shortly after World War II, two major behavioral leadership projects were initiated: The Ohio State Leadership Studies (Stogdill and Coons, 1957); and the University of Michigan Studies (Coch and French, 1948; French, 1950; Katz, Maccoby and Morse, 1950; Katz, Maccoby, Gurin, and Floor, 1951; Katz and Kahn, 1952). Principally, both projects shared several noteworthy commonalities. In particular, both studies placed their methodological and theoretical emphasis toward measuring what the leader does in the group. Moreover, both studies conducted their research primarily in the field setting. Interestingly, two distinct but similar leadership styles were identified by both studies: "consideration" and "initiating structure" by the Ohio State Leadership project; and "job centered" and "employee centered" by the University of
Michigan project. Furthermore, both studies developed questionnaires to measure their respective leader behavior dimensions. Lastly, the empirical results of both projects were in agreement in that both suggested that no one leadership style was most effective across a variety of settings. In some instances, a directive or job centered style was the most effective; while in other instances, a considerate or employee oriented style was found to be the most effective.

Numerous other behavioral leadership researchers have proposed additional leader behavior taxonomies. Perhaps Lewin and Lippitt (1938) were the first to identify two clearly contrasting styles of leadership, authoritarian and democratic. Later, Tannenbaum and Schmidt (1958) identified boss-centered and subordinate-centered leadership styles. McGregor (1960) contrasted leadership styles with his theory X and theory Y proposition. Blake and Mouton (1964) conceptualized a Managerial Grid on which a people dimension and a task dimension of leader behavior were operationalized. Bowers and Seashore (1966), after synthesizing the findings from the Ohio State and University of Michigan studies, proposed a four-factor theory of leadership in which leader behavior was categorized as: (1) support; (2) interaction facilitation; (3) goal emphasis; and (4) work facilitation. Likert (1967), in an assessment of
the type of leadership styles typically used by managers, found four distinct patterns: (1) exploitive-autocratic; (2) benevolent-autocratic; (3) participative; and (4) democratic. In summation, all of these studies, like the Ohio State and University of Michigan efforts, suggested that there is no universally accepted single style of leadership that can be considered most effective.

In essence, the behavioral approach to leadership research was a search for the most effective style of leadership. However, like the trait approach, behavioral approach results were inconsistent across studies. Nevertheless, this discovery, in and of itself, was significant. Leadership researchers recognized that different situations required different leadership traits and behaviors. Consequently, subsequent research efforts shifted their focus to the identification of situational factors that impact leader behavior.

Situational Approach. In general, situational theories of leadership "are concerned with the moderating influence of situational variables on the relationship between leader behavior or traits and end-result variables such as group performance" (Yukl, 1981, p. 168). When viewed in this light, moderator variables were those factors of the situation that had a strengthening or negating effect on the traits or behavior of the
leader. Hence, situational theories were often referred to as contingency theories since "a leader's effects on subordinates are postulated to be contingent on particular situational moderator variables" (Yukl, 1981, p. 132).

Yukl (1981) identified the following five situational leadership theories as being the best known or having the most promise: (1) Contingency Theory (Fiedler, 1964, 1967); (2) Situational Leadership Theory (Hersey and Blanchard, 1969, 1977); (3) Path-Goal Theory of Leadership (House, 1971) as advanced by House and Dessler (1974), House and Mitchell (1974), and Stinson and Johnson (1975); (4) Multiple Linkage Model of Leader Effectiveness (Yukl, 1971); and (5) Substitutes for Hierarchical Leadership (Kerr and Jermier, 1978). Since each theory is inherently complex, the scope of this review does not permit a comprehensive explication of each theory. However, for such an examination, Yukl (1981) was an excellent reference. A concise overview of these five theories was presented in Table 2.

Each theory has made contributions to the study of leadership. For exemplification, the model of Fiedler was "the first major attempt to combine estimates of the style of the leader with estimates of the
<table>
<thead>
<tr>
<th>SITUATIONAL THEORY OF LEADERSHIP</th>
<th>SITUATIONAL VARIABLES</th>
<th>VALIDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiedler's Contingency Theory</td>
<td>Task Structure, L-M Relations, Position Power</td>
<td>Many Studies, Inconclusive</td>
</tr>
<tr>
<td>House's Path-Goal Theory</td>
<td>Many Aspects</td>
<td>Many Studies, Inconclusive</td>
</tr>
<tr>
<td>Yukl's Multiple Linkage Model</td>
<td>Many Aspects</td>
<td>No Direct Tests</td>
</tr>
<tr>
<td>Hersey &amp; Blanchard Situational Theory</td>
<td>Subordinate Maturity</td>
<td>No Direct Tests</td>
</tr>
<tr>
<td>Kerr &amp; Jermier Substitutes for Leadership</td>
<td>Many Aspects</td>
<td>Few Direct Tests, Inconclusive</td>
</tr>
</tbody>
</table>

situation" Mitchell, 1982, p. 377). Situational Theory posited that "it is essential to treat different subordinates differently, and to treat the same subordinates differently as the situation changes" (Yukl, 1981, p. 144). Path-Goal Theory postulated that "the way to motivate subordinates is to link hard work frequently and consistently to goals that are highly valued by the subordinates. Second, the theory has attempted to include some factors such as subordinate personality into the overall contingency framework" (Mitchell, 1982, p. 379). The Multiple Linkage Model "emphasizes the explanation of subordinate performance and treats subordinate motivation and satisfaction with the leader as intervening variables rather than as an end-result variable" (Yukl, 1981, p. 162). Finally, the Substitutes for Leadership model identified two kinds of situational variables, "substitutes" and "neutralizers," that "serve to remind us that the potential impact of the leader on subordinate motivation and satisfaction may be greatly limited by the leadership situation (Yukl, 1981, p. 165).

While each theory has contributed to the understanding of leadership, the validity and utility of each theory was found to be open to question. Furthermore, each theory has received major criticisms from the leadership research community. A synopsis of selected
criticisms was delineated in Table 3.

In summation, while substantial progress has been made toward a better understanding of leadership as a result of the situational approach, the review of literature found that no one situational theory was universally accepted. As indicated in Table 3, the theories originated by Fiedler and House are the only ones that received wide empirical testing, and their validation results were inconclusive. Perhaps Yukl (1981) best summarized the situational theories when he made this evaluation:

In general, the situational theories are complex, imprecisely formulated, and difficult to test. Adequate empirical verification has not been achieved yet for any of these theories. At present, they are more useful for suggesting potentially important variables to investigate than as a source of definitive explanations about leadership effectiveness (p. 169).

### Table 3
Selected Criticisms of the Situational Leadership Theories

<table>
<thead>
<tr>
<th>SITUATIONAL THEORY OF LEADERSHIP</th>
<th>SELECTED CRITICISMS</th>
</tr>
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<tbody>
<tr>
<td>Contingency Theory</td>
<td>1. The interpretation of the Least Preferred Coworker (LPC) score is speculative and inadequately supported (Schriesheim and Kerr, 1977).</td>
</tr>
</tbody>
</table>
2. The model is not really a theory. It doesn’t explain how a leader’s LPC score has a causal effect on group performance (Ashour, 1973).

3. The supporting results for the model are weak and inconsistent (Graen, Alvares, Orris, and Martella, 1970; McManus, 1972).

4. The weights assigned to the three situational variables used to calculate the index of situational control were determined in an arbitrary manner (Shiflett, 1973).

5. The situational measures may not be entirely independent of the leader’s LPC score (Kerr and Harlan, 1973).

---

Situational Leadership Theory

1. Validation studies testing the theory have not been published (Yukl, 1981, p. 143).

2. The conceptual basis of the theory is weak in that a coherent, explicit rationale for the hypothesized relationships have not been published (Yukl, 1981, p. 143).

### Path-Goal Theory

1. Validation research is not conclusive (Schriesheim and Kerr, 1977).

2. The linkage between Path-Goal Theory and expectancy theory guarantees that the former is limited by the conceptual problems of the latter (Schriesheim and Kerr, 1977).

3. The theory is so complex that it leads to conceptual ambiguity (Yukl, 1981, p. 151).

### Multiple Linkage Model of Leadership Effectiveness

1. No direct tests of the model have been completed (Yukl, 1981, p. 162).

2. Validity and utility of the model has yet to be assessed (Yukl, 1981, p. 162).

3. The model is in an imprecise form, so it is likely to be modified and refined (Yukl, 1981, p. 162).

### Substitutes for Leadership

1. Due to the recency of this model, there has not been enough time to assess its validity or utility (Yukl, 1981, p. 165).
Theoretical Framework

The theoretical framework that guided this study was underpinned by four major components: (1) the Ohio State leadership studies; (2) locus of control; (3) job satisfaction; and (4) effective schools research. The contributions that each component provided to the theoretical framework were highlighted in the following four sections.

The Ohio State Leadership Studies. The question of whether a particular leadership behavior is related with organizational success has always been of great interest to business, industry, education, and the military (Bass, 1981). One of the first major attempts to examine leader behavior was the Ohio State Leadership Studies. During 1945 to 1956, the Ohio State Leadership Studies program placed leader behavior at the focal point of their investigations (Shartle, 1957). As a result of these studies, two basic dimensions of leader behavior in the formal organization were isolated: "consideration" and "initiating structure." Korman (1966) noted that while the Ohio State Leadership Studies program "was responsible for a variety of significant findings, it is quite likely that the most important contribution was isolation of 'Consideration' and 'Initiating Structure' as basic dimensions of leadership behavior in the formal organization" (p. 349).
These two leadership behavior dimensions, or variables, are assessed by the Leader Behavior Description Questionnaire (LBDQ), a 130 item instrument developed by Hemphill and Coons (1957). In describing the development of the LBDQ, Hemphill and Coons reported:

It was agreed that the instrument should be adaptable to studies in widely different frames of reference. This would make it possible to include such an instrument in each individual research design, thereby contributing to an integration of research findings that would not be possible otherwise (p. 7).

Later, a shorter version of the LBDQ was developed, the LBDQ-12 (Stogdill, 1963). With either instrument, the subordinates of the leaders were typically the respondents. A score for each dimension was tabulated to determine the leadership style. When it was important to learn how a leader thinks he or she should behave as a leader, the LBDQ-"Ideal" version was administered to the leader (Halpin, 1957). Interestingly, Halpin was the first to use the LBDQ in the educational setting when he studied the observed and ideal behaviors of school superintendents. Halpin (1957) concluded, in part:

It may be said, in general, that a leader's beliefs about how he should behave as a leader are not highly associated with his behavior as described by his followers (p. 68).
Halpin (1958) developed a quadrant framework for describing leader behavior on the consideration and initiating structure dimensions. This framework was diagrammed in Figure 1. According to Halpin (1966), there are four separate styles of leader behavior and each style is represented by a quadrant. In explaining the results of a series of leader behavior studies, Halpin (1966) stated:

The leaders described in Quadrant I are evaluated as highly effective, whereas those in Quadrant III, whose behavior is ordinarily accompanied by group chaos, are characterized as most ineffective. The Leaders in Quadrant IV are the martinets and the “cold fish” so intent upon getting the job done that they forget they are dealing with human beings, not with cogs in a machine. The individuals described in Quadrant II are also ineffective leaders. They may ooze with the milk of human kindness, but this contributes little to effective performance unless their Consideration behavior is accompanied by a necessary minimum of Initiating Structure behavior (p. 99).

In sum, Halpin (1966) posited that effective leader behavior was associated with high scores on both dimensions.

Since the assertion of a high-high leader paradigm by Halpin (1966), there has been a considerable amount of support for it in the organizational behavior literature. Blake and Mouton (1964) developed the Managerial Grid, a popular version of the high-high leader paradigm. However, instead of using consideration and initiating structure dimensions of leader behavior, the Managerial Grid employed leadership
INITIATING  |  STRUCTURE
--- | ---
High | High
LC-HIS (IV) | HC-HIS (I)
Low | Low
LC-LIS (III) | HC-LIS (II)

ConSIdERATION (C)  

Figure 1

A Quadrant Framework for Describing Leader Behavior on the Consideration and Initiating Structure Dimensions

Adapted From:

dimensions of "concern for people" and "concern for production." The optimal leader on the Managerial Grid was one who had a 9-9 leadership style, which, in essence, was analogous to the high-high quadrant in the framework developed by Halpin. Moreover, other scholars, such as Fast (1964), Sergiovanni and Starret (1971), Williams (1980), and Pirzadeh (1984) suggested that the high-high style was optimal for effective leadership in the formal organization.

However, universal concurrence with the high-high leader paradigm has not prevailed. An extensive amount of literature has challenged the popular notion of the high-high leader as being the most effective. Hunt and Liebscher (1973) found that attitudes toward the preferences for consideration and initiating structure changed as a function of both the individual and the situation. Kerr, Schriesheim, Murphy, and Stogdill (1974) stated that "it is often extremely difficult for a leader to behave in such a way that his subordinates will perceive him to be simultaneously high in both Consideration and Structure" (p. 63). In fact, Kerr et al. concluded that "it seems an oversimplification to claim that the effective leader needs 'merely' to behave in highly considerate and structuring manner" (p.63). Moreover, Larson, Hunt, and Osborn (1976), in a review of the literature, concluded "that a leader high in both structure
behavior and considerate behavior is likely to be the most effective in terms of follower satisfaction and/or performance is still open to question" (p. 632). Nystrom (1978), after conducting a leader behavior study in a large business firm, summarized, in part:

Replicating and extending Larson et al.'s study corroborated the lack of empirical support for the hi-hi leader paradigm.

For the business managers studied, a boss's leader behavior of low structure and high consideration seemed preferable.

Future leadership studies should routinely test for interaction effects, but current empirical evidence suggests that the supposed utility of the hi-hi paradigm is a myth that should be abandoned (p. 330).

Furthermore, in recent educational studies, Rosenthal (1976), Harlan (1980), and Ramsden (1983) suggested that the high-high leader paradigm was not supported by their findings. Since empirical evidence exists that refuted the hi-hi leader paradigm, "it is now widely acknowledged that a leadership style that is effective in one situation may be ineffective in another" (Valenzi and Dessler, 1978, p. 671).

Recognition of the limitations of the behavioral approach to leadership led researchers to develop situational theories of leadership. Although the Ohio State Studies are classified as a behavioral approach to leadership, the consideration and initiating structure dimensions of
leader behavior have situational implications. Kerr, Schriesheim, Murphy, and Stogdill (1974) observed that "while it was never the primary intention of the Ohio State researchers to develop a full-blown situational theory of leadership, it is possible to derive some situational propositions from their work, and from the work of others who have used their measuring instruments" (p. 63). Kerr et al. posited:

In order to develop a situational theory of leadership, ways must exist to classify both the leader and the situation. Utilization of the Ohio State scales enables us to classify the leader according to his Consideration and Initiating Structure Scores.... Thus a leader may be high in both Consideration and Structure, low in both, or high in one and low in the other.

Another problem common to the Fiedler model and to our own approach is that it is both conceptually and physically impossible to define and study all the important variables which comprise the "situation." It is consequently necessary to select only those elements of the environment which are measurable, and which exert a strong effect upon relationships between the leader behavior variables and the criteria (p. 72).

Since the leader behavior dimensions of consideration and initiating structure provided a measurable means for classifying leader behavior, the Ohio State Leadership Studies formed an integral part of the theoretical framework for this study. Specifically, justification for incorporating these two leader dimensions into the theoretical framework was perhaps best enumerated by Kerr et al. (1974, p. 64):
1. The leadership scales developed at Ohio State are theoretically meaningful, and can be linked to other research "trails" in the literature.

2. They have the advantage of being factor-analytically determined.

3. They are descriptive of behaviors which are readily identifiable, and raters can agree on what behaviors they have observed (Stogdill, 1969).

4. They have a common sense look about them which is appealing to the practicing manager, who will often permit entree to his work group.

5. Numerous studies have used the Ohio State Leadership Scales (particularly the Consideration and Initiating Structure dimensions of the Leader Behavior Description Questionnaire and the Leadership Opinion Questionnaire). Much of this research has been of good quality, and normative data have been accumulated.

Furthermore, by treating the consideration and initiating structure dimensions in a situational mode, this researcher accepted the belief of Kerr et al. (1974) that this approach "more accurately reflects the character of the Ohio State research than do efforts to label the studies as behavioral theory dinosaurs, whose importance to the field is merely historical" (p. 77).

Locus of Control. Given that there are perhaps an infinite number of situational factors that could be included in a leadership study, Kerr et al.
(1974) noted that "psychological characteristics of the subordinates may be important moderators of leader behavior--criteria relationships" (p. 71). While there are a variety of psychological characteristics that are positively correlated with leadership (Bass, 1981), scholars such as Pryer and Distefano (1971), Runyon (1973), Evans (1974), Mitchell, Smyser, and Weed (1975), Durand and Nord (1976), Anderson and Schneier (1978), and Decaro (1983) believed the internal-external locus of control dimension (Rotter, 1966) to be an important personality factor in the study of leadership. Even though their studies provided insight into the influence of locus of control on the leader-follower relationship, additional empirical work is needed, as emphasized by Durand and Nord (1976):

The data reported in this study support the need for more in-depth studies of the personality factors in the supervisor-subordinate relationship. In this regard, the characteristics of the subordinates may be nearly as important as those of the supervisors. Moreover, the findings suggest that personality factors having to do with personal and interpersonal control might provide fruitful starting points for such investigations. In this respect, the results from Rotter's measure of locus of control and its component subscales give strong support to Runyon's (1973) conclusion that the I-E scale has unrealized potential for the study of leadership in organizations (p. 437).
Phares (1976) noted that the locus of control concept emerged from social learning theory. Given that extensive discussions of social learning theory have been made by Rotter (1954) and Rotter, Chance, and Phares (1972), this review was limited to a brief explanation of the basic concepts and assumptions of social learning theory that were pertinent to understanding the locus of control concept.

Phares (1976) defined social learning theory as “a theory of how choices are made by individuals from the variety of potential behaviors available to them” (p. 13). Underlying social learning theory are several key assumptions that Phares (1976, pp. 11-13) listed as being helpful in explaining human behavior. In part, these assumptions were:

1. “The unit of investigation for the study of personality is the interaction of the individual and his meaningful environment” (Rotter, 1954, p. 85).

2. The emphasis of this theory is on learned social behavior. . . . The area of human behavior with which one chooses to deal determines in large part what kinds of concepts will be useful. In the realm of social behavior, learned attitudes, values, and expectations seem more useful than instincts, hormones, and blood pressure.

3. There is unity to personality. Individuals’ experiences—their interactions with their meaningful environment—though varied, are interrelated. The common thread is their personality with all its stable aspects.
4. There is a purposeful quality to human behavior. Behavior may be said to be goal-directed in the sense that people strive to attain or avoid certain aspects of that environment. This is the familiar notion that behavior is motivated.

5. Finally, "[t]he occurrence of a behavior of a person is determined not only by the nature or importance of goals or reinforcements but also by a person's anticipation or expectancy that these goals will occur" (Rotter, 1954, p. 102).

This brief overview of the assumptions that underlie the theoretical background of social learning theory assisted in the understanding of the locus of control concept. Specifically, Runyon described the locus of control concept as:

.... a generalized belief that a person can or cannot control his own destiny. This belief arises from social learning theory, and is rooted in general principles of reinforcement. Within the context of social learning theory, it is argued that individuals receive reinforcement under varying conditions. If an individual perceives a reinforcement as being contingent upon his own actions, this is termed a belief in "internal" control. If an individual perceives a reinforcement as being contingent upon outside forces, it is termed a belief in "external" control. Depending on one's life history, a person builds up generalized expectancies or beliefs concerning the nature of the reinforcements he receives. The generalized expectancies of "internal versus external" control have functional properties that make them an important personality variable (Runyon, 1973, p. 288).

Therefore, Runyon (1973) asserted that those employees who have an internal locus of control should behave positively toward a considerate style of leadership and negatively to an initiating structure style of
leadership. Conversely, those employees who have an external locus of control should behave negatively toward a considerate style of leadership and positively toward an initiating structure style of leadership. The rationale for these predictions was that internals, in order to control their own destiny, needed a supervisor who permitted employee autonomy and freedom for personal initiative. On the other hand, externals would feel frustrated under this type of leadership since they would prefer a supervisor who had a directive and structured orientation. These predicted relationships were supported by findings reported by Runyon:

1. Under participative management, the satisfaction of Internals is significantly greater than that of Externals.

2. Under conditions of directive management, the satisfaction scores of Externals is significantly greater than that of Internals.

3. Internals, under participative management, exhibit greater satisfaction with supervision than Internals under directive supervision.

4. Externals, under directive management, exhibit greater satisfaction with supervision than Externals under participatory management (pp. 291-292).

While subordinate locus of control may be a significant personality factor influencing the leadership process in the formal organization, there have been relatively few studies that have investigated the
combined relationships of leader behavior, locus of control, and job satisfaction as perceived by the subordinates in the formal organization. In the studies that have been conducted, none were conducted in the vocational education setting. For example, Pryer and Distefano (1971) focused their research on employees at a state mental hospital. Runyon (1973) investigated hourly employees of a major chemical company. Evans (1974) focused his research on young managers enrolled in a part-time masters of business administration program at the University of Toronto. Finally, Mitchell, Smyser, and Weed (1975) conducted their study at a public utility in a large metropolitan area. In general, these studies found that subordinates with an internal locus of control were more satisfied with a considerate leader than with a directive leader. Conversely, subordinates with an external locus of control were more satisfied with a directive leader than with a considerate leader.

In conclusion, given the potential importance of locus of control in the study of leadership, this concept was selected as a part of the theoretical framework for this study. The obvious absence of locus of control research as it related to leader behavior in the vocational education setting provided additional impetus for its selection into the framework. Furthermore, the locus of control personality characteristics
of the subordinates and how this personality interacts with perceptions of leader behavior as perceived by the subordinates may be more important than the perceptions of leader behavior made by the leader. The nature of the leader-follower relationship suggested that, no matter how the leader thought he or she behaved, the followers interpreted this behavior into their own realities of leadership.

Job Satisfaction. Locke (1969) noted that job satisfaction has been of interest to researchers since the 1930's. The endless number of studies conducted on this topic provided evidence of its importance to organizations. According to Lawler (1983):

Originally, much of the research seemed to be stimulated by a desire to show that job satisfaction is important because it influences productivity. Underlying the earlier articles on job satisfaction was a strong conviction that "happy workers are productive workers." Recently, however, this theme has been disappearing....(p. 80).

Lawler continued:

Job satisfaction is one measure of the quality of life in organizations and is worth understanding and increasing even if it doesn't relate to performance.... What happens to people during the work day has profound effects both on the individual employee's life and on the society as a whole, and thus these events cannot be ignored if the quality of life in a society is to be high.

As it turns out, satisfaction is related to absenteeism and turnover, both of which are very costly to organizations. Thus,
there is a very "practical" economic reason for organizations to be concerned with job satisfaction, since it can influence organizational effectiveness (p. 80).

In an attempt to gain an understanding of the job satisfaction concept, an understanding of the job concept was needed first. According to Locke (1969):

A job is not an entity but an abstraction referring to a combination of tasks performed by an individual in a certain physical and social context for financial (and other) remuneration. Since a job is not perceived or experienced as such, it cannot initially be evaluated as a single unit. Overall, job satisfaction is the sum of the evaluations of the discriminable elements of which the job is composed (p. 330).

Locke added that "a valid overall index of satisfaction would, in the present view, be a sum of the evaluations of all job aspects to which the individual responds" (p. 331). Smith, Kendall, and Hulin (1969) also believed in a global measure of job satisfaction as evidenced by their Job Descriptive Index measure of job satisfaction. In fact, Harlan (1980), in his review of the job satisfaction literature, concluded that "the literature would seem to indicate that job satisfaction encompasses a global concept composed of several components or aspects" (p. 20).

The consideration and initiating structure dimensions of leader behavior were found to be related to job satisfaction by numerous researchers. For example, Halpin and Winer (1957), in a study of Air Force
personnel manning bombardment aircraft, found that "Consideration is more highly related than Initiating Structure to an index of crew satisfaction" (p. 51). Pryer and Distefano (1971) investigated leadership behavior, job satisfaction, and locus of control attitudes across three nursing levels in a state mental hospital. They found that "the leadership dimension of Consideration was positively related to job satisfaction at all levels" (p. 536). Initiating structure, however, was only related to job satisfaction with supervision at the level where a nonprofessional group rated professional level supervision. Moreover, Schriesheim and Murphy (1976), in a study of a national black social services organization, found, in part, that:

Leader initiating structure was positively related to subordinate satisfaction in larger work units but negatively related in smaller units. An opposite pattern was found with respect to consideration-satisfaction relationships (p. 640).

Furthermore, Harlan (1980), in a study that examined the relationship between the perceived leadership behavior of pupil services administrators and the job satisfaction of their subordinates, found "that while both consideration and initiating structure have a significant effect upon job satisfaction, the effect of consideration is the stronger" (p. 62). Williams (1980), in a study that examined the relationship of the
behavior of the principal to school climate, found that when the leadership style of the principal was perceived as being high on both dimensions of leader behavior, teachers perceived their schools as being an enviable place to work. In essence, Williams found support for the high-high leader paradigm. On the other hand, Aftahi (1981) investigated the relationships between job satisfaction of nurses and the leadership style of their supervisors. He found that the leadership style of consideration was a better predictor of nurse job satisfaction than an initiating structure leadership style.

Recently, Young (1982) examined administrator leadership behavior and custodian job satisfaction at a large southern educational organization. In a nonrandom sample of 81 custodians, Young found only a main effect for the leadership dimension of consideration. Support for the initiating structure dimension was not found in his study. In a study that examined the relationships between leadership behavior of principals and job satisfaction of teachers, Barnard (1983) found a significant relationship between the scores of principals on the consideration and initiating structure dimensions of leadership behavior and on the job satisfaction scores of teachers. However, no interaction tests were performed on the data collected from the random sample of 580 teachers.
As a last example, Ramsden (1983) investigated the relationship between community college part-time faculty job satisfaction and their perceptions of the leadership behavior of their respective division chairpersons. Ramsden found a significant relationship between consideration and overall job satisfaction.

Although numerous other studies are certain to exist that examined the relationships of consideration and initiating structure dimensions of leader behavior with subordinate job satisfaction, the conclusion that leadership behavior and subordinate job satisfaction are related significantly appeared tenable. Thus, leader behavior and job satisfaction were not novel variables concocted by researchers for study. Therefore, given the importance of job satisfaction to organizations and the significant relationship between leader behavior and job satisfaction, the inclusion of job satisfaction as a major underpinning of the theoretical framework of this study appeared logical.

**Effective Schools Research.** In Chapter I, this researcher claimed that this study was significant from an effective schools research perspective. Documentation from the effective schools literature was cited to provide evidence to support this claim. Given the importance of the effective schools research role to this study, effective schools
research was selected as a major element of the theoretical framework of this study. Therefore, a synopsis of the effective schools literature was provided in this section so that more can be learned about what this research found pertaining to school-site leadership and effective schools. Concomitantly, this review attempted to provide additional evidence to support the claim that the significance of this study was enhanced as a result of effective schools research.

Recently, public interest in the schools of our nation was captivated by a plethora of national reports (National Commission on Excellence, 1983; Education Commission of the States, 1983; Boyer, 1983). In general, these reports were critical of the condition of American education. Moreover, these reports, combined with previous negative findings on the efficacy of schooling (Coleman et al., 1966; Hodgson, 1975; Bowles and Gintis, 1976), presented a gloomy picture of the status of American education.

However, a more optimistic tone has appeared in the effective schools research literature (Phi Delta Kappa, 1980; Heckman, 1981; Morris, 1981; Mackenzie, 1983; Goodlad, 1984; Purkey and Smith, 1984). According to Bickel (1983), this renewed optimism about the efficacy of schooling was framed by three key assumptions. These assumptions were:
"(1) schools can be identified that are unusually effective in teaching poor and minority children basic skills as measured by standardized tests; (2) these successful schools exhibit characteristics that are correlated with their success and that lie well within the domain of educators to manipulate; (3) the characteristics of successful schools provide a basis for improving schools not deemed to be successful" (p. 3). Inherent in the third assumption, as noted by Bickel, "is a conviction that the school is an appropriate level to focus educational reform efforts" (p. 3).

Posited in the effective schools literature was the acknowledgement that school leadership was a fundamental element needed for improving school effectiveness. Although this acknowledgement, intuitively, appeared to be based on common sense, there was a research base for making such a claim. Cuban (1984) observed that "most studies of effective schools stress the pivotal role of the school principal" (p. 145). Boyer (1984) concurred:

The studies of schooling have also reaffirmed the importance of leadership. For years, studies have pointed to the pivotal role of the principal in bringing about more effective schools. Our own field studies support these findings (p. 527).
Purkey and Smith (1984) identified thirteen characteristics of the school culture that encouraged academic achievement:

1. School-site management
2. Leadership
3. Staff stability
4. Curriculum articulation and organization
5. Staff development
6. Parental involvement and support
7. School-wide recognition of academic success
8. Maximized learning time
9. District support
10. Collaborative planning and collegial relationships
11. Sense of community
12. Commonly shared clear goals and high expectations
13. Order and discipline

Purkey and Smith noted that "these characteristics are likely to be interrelated and have a cumulative effect" (p. 3). Moreover, in describing the leadership characteristic, Purkey and Smith asserted:

Leadership from either the principal, another administrator or a group of teachers is necessary to initiate and maintain the improvement process (p. 4).
Finally, two other prominent scholars from the effective schools field made similar conclusions. Goodlad (1984) posited:

There has been growing support in recent years for the view that the importance of the principal to school quality and improvement is great. Indeed, as with teachers, some people have gone so far as to claim that "everything depends on the principal." We found in the schools we studied a relationship between teacher satisfaction and strong leadership by the principal (pp. 178-179).

Finn (1984), after reviewing the effective schools literature pertaining to leadership, concluded:

Here the effective schools research confirms both established organizational theory and common sense. Leadership matters. If policy makers could do only one thing to improve a school, they would be wise to hire the best principal they could find—then give that person wide authority (p. 521).

In conclusion, the amount of agreement on the importance of school-site leadership to effective schools was overwhelming. The evidence was so formidable that the question of whether leadership made a difference in improving schools was no longer debatable. Rather, the question of how to improve school-site leadership so that the school improvement process can be enhanced emerged as the next significant problem. Without effective schools research serving as a part of the theoretical framework of this study, this research attempt to understand the nature of school-site leadership may have been merely a scholarly
exercise designed without a meaningful purpose. However, with effective schools research serving as a major underpinning of the theoretical framework, the need for research on school-site leadership automatically became teleological.

**Conceptualization of the Theoretical Framework.** The four elements that comprised the theoretical framework of this study were conceptualized by this researcher as depicted in Figure 2. The pictorial indicated the link between the Ohio State Leadership Studies, locus of control, job satisfaction, and effective schools. The conceptualization treated the leader behavior dimensions of consideration and initiating structure in a situational mode rather than in a static behavioral framework. Thus, the leader was able to change his or her level of leader behavior on the two dimensions as the situation warranted.

Subordinates perceived leader behavior as being on one of the four aforementioned behavior dimension pairs: HC-HIS, HC-LIS, LC-HIS, or LC-LIS. The locus of control personality dimension of the subordinates influenced their job satisfaction, depending upon how they perceived leader behavior. High subordinate job satisfaction contributed to school effectiveness. Low subordinate job satisfaction signalled the leader that his or her behavior toward these subordinates needed to be adjusted. If
Figure 2

Conceptualization of the Theoretical Framework
the leader knew the interactive effects of leader behavior and subordinate locus of control on the job satisfaction of his or her subordinates, the appropriate leader behavior adjustments could be made to increase subordinate job satisfaction. If the job satisfaction of these subordinates increased as a result of the changed behavior of the leader toward these subordinates, school effectiveness would be enhanced.

Chapter Summary

This chapter presented a review of literature relevant to this study and it delineated the major underpinnings of the theoretical framework of this study.

Leadership was noted as being a complex phenomena that has been under intensive scientific investigation throughout the twentieth century. Three approaches to the study of leadership were recognized in the organizational behavior literature. These three approaches, the trait approach, the behavioral approach, and the situational approach, were reviewed for their major contributions to the understanding of leadership.

The trait approach focused on the identification of personality traits that characterized effective leaders. Since trait approach studies were inconsistent in their results, this approach eventually received extensive
criticism. Recently, because of improvements in research methodology and measurement techniques, personality traits in leadership have received a renewed research interest.

In the behavioral approach, the research interest focused on the behavior of the leader. The Ohio State Leadership Studies and the University of Michigan studies were two exemplary leadership research efforts from this era. While other noteworthy behavioral research efforts appeared in the literature, in general, they all searched for the most effective style of leadership. Since their results were inconsistent across studies, leadership scholars recognized that different situations required different leadership traits and behaviors. In other words, this approach discovered that there was no single leadership style that was universally effective.

The recognition that significant factors impact leadership behavior led researchers to the third approach, the situational approach to the study of leadership. Five prominent situational theories were reviewed for their contributions to the understanding of the leadership concept: (1) Contingency Theory; (2) Situational Theory of Leadership; (3) Path-Goal Theory; (4) Multiple Linkage Model; and (5) Substitutes for Hierarchical Leadership. Although each theory contributed to the understanding of
leadership, the validity and utility of each theory was open to question. Consequently, while no one situational theory was universally accepted, each theory was rich in variables that needed further investigation.

The theoretical framework that guided this study was underpinned by four major components: (1) The Ohio State Leadership Studies; (2) locus of control; (3) job satisfaction; and (4) effective schools research. The contributions that each component provided to the framework were discussed. A conceptual pictorial of the framework that linked these four major components was presented and discussed.
CHAPTER III

METHODOLOGY OF THE STUDY

The primary purpose of this study was to determine the leadership behavior of central Ohio joint vocational school superintendents as perceived by their vocational teachers and to examine interactive effects between this perceived leader behavior and vocational teacher locus of control on job satisfaction. The research methodology utilized to conduct this study was presented in this chapter. Specifically, the research design, subject selection, instrumentation, data collection, and analysis of data procedures were described.

Research Design

The research design utilized in this study was classified as a 2x2x2 factorial design. According to Kerlinger (1973), a factorial design "is the structure of research in which two or more independent variables are juxtaposed in order to study their independent and interactive effects on
a dependent variable” (p. 351). A geometric display of the design employed in this study was depicted in Figure 3. Three independent variables formed the three dimensions of this rectangular solid. Factor A, the consideration dimension of leader behavior, and, Factor B, the initiating structure dimension of leader behavior, marked off the width and height, respectively. The third independent variable, locus of control, is designated as Factor C and it marked off the depth of the solid. Each factor had two levels. Factors A and B each had a high and low level. Factor C had an internal and an external level. Each of the eight cells, or blocks, represented a different combination of the levels of the three factors. Since this was a 2x2x2 factorial design, the three independent variables were arranged in a completely crossed fashion (Keppel, 1982). Furthermore, since the independent variables in this study were not manipulated, the study was nonexperimental. Job satisfaction was the dependent variable in this study.

Ary, Jacobs, and Razavieh (1979) discussed the importance to studying the effects on a dependent variable of several independent variables in a factorial design. They asserted:
Figure 3

Schematic Diagram of the Research Design
Educational research has been criticized in the past because of an overreliance on the one-variable design. Critics have pointed out that in the case of complex social phenomena there are generally several variables interacting simultaneously, and to attempt to restrict a study to one variable is to impose an artificial simplicity on a complex situation. In fact, it has been said that the real breakthrough in educational research came with Fisher's development of factorial designs (p. 255).

In addition, Pedhazur (1982) noted this advantage of factorial designs:

The first and perhaps the most important advantage is that it is possible to determine whether the independent variables interact in their effect on the dependent variable. An independent variable can "explain" a relatively small proportion of the variance of a dependent variable, whereas its interaction with other independent variables may explain a relatively large proportion of the variance. Studying the effects of independent variables in isolation cannot reveal the interaction between them (p. 335).

Furthermore, Pedhazur (1982) noted that it is desirable that group sample sizes be equal so that statistical test sensitivity is optimized. In other words, when certain assumptions that underlie these tests were violated, distortions were minimized when cell sizes were equal.

In experimental factorial designs, the researcher can randomly assign subjects to the various blocks to form equal cell sizes. Factorial designs that have equal cell sizes were referred to in the literature as orthogonal, or balanced designs. In these designs, the independent
variables were independent of each other. In other words, the correlation between them was essentially zero. Thus, independent effects of each independent variable were determined with little difficulty.

In nonexperimental research, Pedhazur (1982) noted that "the variables are almost always correlated with each other" (p. 386). Especially in nonexperimental factorial designs, unequal cell frequencies usually occurred "because of correlations among independent variables or predictors" (Pedhazur, 1982, p. 382). The literature referred to factorial designs with unequal cell sizes as nonorthogonal, or unbalanced. Unbalanced nonexperimental designs may have validity problems since "it is difficult to determine the independent effects of each independent variable since they are confounded with one another" (Spector, 1981, p. 58). The popular practice of artificially balancing unbalanced designs by randomly removing the appropriate amount of cell subjects until equal cell frequencies were reached was not recommended by Keppel (1982) and Pedhazur (1982). They stated that such a procedure complicated the task of determining the independent effects of each independent variable. Furthermore, the end effect of such a practice would more than likely increased the threat to the validity of the results.
Therefore, since this factorial design of this study was nonorthogonal, corrective procedures were taken by this researcher to lessen the risk of making erroneous interpretations of the research results. These procedures corresponded with the criteria that Pedhazur suggested for reducing this risk:

Whether or not the interpretation of results is simple or complex, clear-cut or ambiguous, depends not on the analysis per se but, among other things, on the substantive meaning of the variables being used and their operational definitions, on the theory, and the overall validity of the research design (p. 385).

Given this direction, the following sections on subject selection, instrumentation, data collection, and analysis of data continued to address the issue of how to minimize threats to the validity of this study.

**Subject Selection**

The target population for this study was Ohio joint vocational school vocational teachers who were employed full-time at their respective schools. Given that there are 49 joint vocational schools operating in the state of Ohio, the limited financial resources of this researcher precluded an investigation of the target population. Consequently, an accessible population was defined as those joint vocational school vocational
teachers who were employed full-time at the aforementioned vocational
schools that were located within a 60 mile radius of Columbus, Ohio.
Based on the information provided by the State of Ohio Department of
Education, there were 12 joint vocational schools that were located
within this 60 mile radius. The names of these schools and their locations
appeared in Appendix A.

The frame for the accessible population was determined by
information provided by the State of Ohio Department of Education,
Division of Vocational Education, dated January 9, 1985. Since the
assumption was made that this teacher information was correct, frame
error was ameliorated. The total population in this frame was determined
to be N=436.

The appropriate sample size was estimated by utilizing the
following formula from Cochran (1977):

\[
\hat{n}_o = \frac{t^2 pq}{d^2}
\]
where:

\[ d = \text{the acceptable margin of error for the proportion being estimated.} \]

\[ t = \text{the risk the researcher is willing to take that the actual margin of error may exceed the acceptable margin of error.} \]

\[ p = \text{the estimated proportion of the population that would fall above the mean for all response items in general.} \]

\[ q = 1 - p. \text{ "Since the product pq increases as } p \text{ moves toward } 1/2, \text{ or } 50\%, \text{ a conservative estimate of } n \text{ is obtained by choosing for } p \text{ the value nearest to } 1/2 \text{ in the range in which } p \text{ is thought likely to lie" (Cochran, 1977, p. 76).} \]

Furthermore, if \( n_0/N \) was negligible (<.05), \( n_0 \) was a satisfactory estimate. However, if \( n_0/N > .05 \), then Cochran recommended that the finite population correction formula be used:

\[
\frac{n_0}{n = \frac{1}{1 + (n_0/N)}}
\]

In this study:

\[ d = \pm .05 \]

\[ t = \text{risk of 1 in 20 (95 percent confidence level). Since } t \text{ is the abscissa of the normal curve that cuts off an area of alpha at the tails, } t = 1.96 \text{, rounded to 2.00.} \]
\[ p = .50 \]

\[ q = 1-p; \text{ thus } q = .50 \]

Solving for \( n_0 \),

\[
\frac{(2)^2(.50)(.50)}{(.05)^2}
\]

\[ n_0 = 1.00 \]

\[ n_0 = \frac{1.00}{.0025} \]

\[ n_0 = 400 \]

Since \( n_0/N = .92 \), the finite population correction was needed.

Therefore, the appropriate sample size, solving for \( n \), was:

\[
\frac{400}{1 + (400/436)}
\]

\[ n = 208.3 \]
The needed sample size of 208.3 was rounded up to 210, which represented approximately 48 percent of the accessible population.

The names of the 436 vocational teachers were numbered by this researcher from 1 to 436, consecutively. Names were checked to ensure that no names were on the list more than once. From this population, a simple random sample of 210 teachers was selected by using a table of random numbers. The subject selection process utilized in this study controlled the threat of sampling error and selection error.

**Instrumentation**

Three well-known instruments were used in this study to obtain measures on the three independent variables and the one dependent variable. The Leader Behavior Description Questionnaire-Form XII (Stogdill, 1963) was used to obtain measures on the consideration and initiating structure independent variables. The Rotter Internal-External Control Scale (Rotter, 1966) was used to measure the third independent variable, locus of control. The dependent variable, job satisfaction, was measured by the Job Descriptive Index (Smith et al., 1969). A brief description of the reliability and validity of each instrument was
presented in the following subsections. By using reliable and valid instruments, measurement error in this study was minimized.

**Leader Behavior Description Questionnaire-Form XII (LBDQ-12).** The LBDQ-12 was used extensively in previous leadership research. Although 12 subscales of leader behavior are included in this instrument, only the consideration and initiating structure subscales were selected for inclusion in this study. The use of part of the LBDQ-12 total scale was a common practice, especially with the consideration and initiating structure factorially-defined subscales (Aiken et al., 1972). These two subscales were each comprised of 10 item statements that elicited a Likert-type response. The items for the two subscales appeared in Appendix B.

Given the preponderance of information pertaining to the reliability of the total instrument and to the consideration and initiating structure subscales, a pilot test of these two subscales was not necessary. Stogdill (1963) reported modified Kuder-Richardson reliability coefficients that ranged from .76 to .87 for the consideration subscale; and .70 to .80 for the initiating structure subscale. These coefficients came from a wide assortment of samples that included ministers,
community leaders, corporation presidents, labor presidents, college presidents, senators, and aircraft executives. Further reliability evidence was provided by Schriesheim and Kerr (1974) when they reported Cronbach alpha coefficients of .71 and .75 for the consideration and initiating structure subscales, respectively.

In reference to validity, Stogdill (1969) concluded that the LBDQ-12 subscales measured what they purported to measure. However, Dipboye (1978), in a review of the LBDQ-12, asked: "Is the LBDQ-12 a valid measure of the leadership behaviors the authors of the scales claim to measure?" (p. 1750). In answering this question, Dipboye posited:

One can approach this question by examining several facets of validity, including the item content, the correlations of the scales with the external criteria, the ability to predict these criteria over time, and the correlation of the scales with other scales purported to measure similar dimensions of leader behavior (p. 1750).

Given this criteria and the studies conducted by Stogdill (1969, 1974) and Yunker and Hunt (1976), Dipboye concluded:

The LBDQ-12 initiation of structure and consideration are the most commonly used scales and have been found to correlate significantly with satisfaction and performance, although the direction of these correlates varies with situational differences.
The LBDQ-12 appears to possess concurrent validity in that its scales have been found to correlate with the external criteria of job satisfaction and performance and are capable of distinguishing between persons displaying behaviors corresponding to the dimensions. The instrument appears to be the best of the Ohio State Leadership Scales in that it provides measures of initiation of structure and consideration that are unconfounded with punitive leadership items (p. 175). 

Rotter Internal–External Control Scale (I–E Scale). The I–E scale also was used extensively in previous research. Phares (1976) described the I–E scale as an additive scale: 

That is, items represent an attempt to sample I–E beliefs across a wide range of situations, such as interpersonal situations, school, government, work, and politics. Because it samples a variety of areas, the scale can more nearly lay claim to being a measure of generalized expectancy. Thus, we have a scale that potentially will predict moderately well across a number of situations (p. 42). 

The I–E scale appeared in Appendix C.

Internal consistency estimates of the I–E Scale, as reported by Rotter (1966), ranged from .65 to .79. Rotter reported: 

While these estimates are only moderately high for a scale of this length, it should be remembered that the items are not arranged in a difficulty hierarchy, but rather are samples of attitudes in a wide variety of situations. The test is as additive one and items are not comparable. Consequently, split-half or matched-half reliability tends to underestimate the internal consistency (p. 10).
Significant evidence for the construct validity of the I-E Scale was documented by Rotter (1966). Moreover, the scale has discriminant validity as evidenced by its low relationship with other variables, such as intelligence, social desirability, and political liberalness. A summary of the studies pertaining to the validity of the I-E Scale was found in Rotter (1966).

_Job Descriptive Index (JDI)._ The JDI also was used extensively in previous research and, consequently, its psychometric properties were documented in detail. The JDI appeared in Appendix D.

Smith, Kendall, and Hulin (1969), the developers of the JDI, reported split-half internal consistencies (corrected by the Spearman-Brown formula) that ranged from .80 for the pay scale to .88 for the co-workers scale. With elementary school teachers, Coley (1980) reported an overall internal consistency measure of .90. In a study on custodial job satisfaction, Young (1982), although he omitted the promotion and co-workers scales in his study, reported internal consistency coefficients of .87, .72, and .71 for the work, supervision, and pay scales, respectively.
Extensive validation documentation was provided in Smith, Kendall, and Hulin (1969). In brief, these validation studies found significant discriminant and construct validity evidence. In fact, Victor Vroom (1964), after reviewing the developmental research of the JDI, commented:

The product of this research, an instrument called the Job Descriptive Index, is without doubt the most carefully constructed measure of job satisfaction in existence today. The developers of the JDI have already obtained data from some 2500 workers and 1000 retirees in 21 different plants. The extensive methodological work underlying this measure as well as the available norms should insure its widespread use in both research and practice (p. 100).

Data Collection

Data for this study were collected from the vocational teachers through the use of a mail questionnaire that combined the LBDQ-12, the I-E Scale, the JDI, and general background information questions. Data collected from the general background questions were used to describe the sample. The questionnaire appeared in Appendix E.

The mailing procedures were consistent with many of the recommendations suggested by Dillman (1978). One week prior to the
initial mailing, superintendents of each school were contacted by mail and were informed of this study. In this letter, their cooperation in this research effort was asked.

Each questionnaire was coded so that nonrespondents could be contacted. A cover letter that described the purpose of the study was attached to each questionnaire. A return, self-addressed, stamped envelope was enclosed with each questionnaire sent to the participants. The mailout package was mailed on April 15, 1985. One week later a letter reminder was sent to all participants. Three weeks after the original mailout, a new cover letter, replacement questionnaire, and a return, self-addressed, stamped envelope were mailed to the nonrespondents. Questionnaires received six weeks after the original mailing were not included in the data analysis. The data collection correspondence appeared in Appendix F.

To ameliorate nonresponse error, Miller and Smith (1983) described several strategies for dealing with the nonresponse problem. They indicated that the double dip strategy was perhaps the most empirically sound method for ameliorating nonresponse error. However, given the somewhat sensitive information collected in this study, on-site or
telephone interviews with sampled nonrespondents needed to be conducted at their respective homes to ensure confidentiality and anonymity. Moreover, even if nonrespondents agreed to be interviewed, the personal nature of the interview may have biased their responses to neutral and safe perceptions. Consequently, this researcher decided that the double dip procedure was not a feasible or useful strategy for this study.

A more practical and useful procedure for handling the nonresponse problem in this study was to compare late and early respondents. Miller and Smith (1983) noted that research showed late respondents were often similar to nonrespondents. By statistically comparing late respondents to early respondents, an estimate of the nature of the nonrespondents can be made. Consequently, this researcher assumed that nonrespondents were typical of late respondents. The respondents of this study were classified by whether they were in the first wave of returned questionnaires or whether they were in the second wave of returned questionnaires. The first wave, or early respondents, were statistically compared with the second wave, or late respondents, on demographic and instrument scores. If late respondents were not significantly different
from early respondents, the nonrespondents can be generalized to the data sample and accessible population.

Joint vocational school span of control was not a factor in this study. The superintendent of each school was the school-site leader and was responsible for carrying out the policies of the Board of Education. Since each superintendent was responsible for directing the educational program of his or her school, the superintendent functioned as the instructional leader of the school. Although the line-staff organizational charts of the 12 schools varied, the span of control of each school tended to be centralized with a short chain of command between the superintendent and the teachers. This short link allowed the superintendent to work closely with the vocational teachers in the evaluation and improvement of the vocational education programs of the school.

Each of the 12 schools had a single director. Although the director was a line officer between the teachers and superintendent, the director tended to function in a staff officer capacity. For example, the tasks of the director included: (1) maintaining school order and discipline; (2) handling of equipment and instructional materials procurement and
delivery problems; (3) maintaining educational program budgets; and (4) dealing with personnel problems. In essence, the function of the director was similar to that of an assistant principal of a large secondary school. Typically, a teacher supervisor from each of the five vocational education service areas assisted the director in carrying out his or her duties.

In conclusion, while the organizational charts of the 12 schools were different, the short link between the superintendent and teachers was uniform across the 12 joint vocational schools included in this study. The superintendent was clearly the school-site, instructional leader of each school and was responsible for achieving and maintaining school effectiveness. The flat and centralized span of control placed the superintendent close to the teachers and, thus, facilitated opportunities for superintendent-teacher interaction. Consequently, given the similarities of the organizational structure of the 12 schools, the threat of span of control to the validity of this study was ameliorated.

This study was exempt from review by the Ohio State University Human Subjects Review Committee since it met the exemption criteria stated in A Digest of Human Subject Program Guidelines (Ohio State University, 1984). Specifically, since this study utilized survey research
procedures that: (1) informed the participants that participation was voluntary; (2) ensured anonymity; (3) made no attempt to deceive the participants; and (4) made no attempt to expose participants to discomfort or harassment, the study met the exemption criteria stated in category three of the above digest.

**Analysis of Data**

This study was exploratory and nonexperimental in nature. Descriptive statistics that included frequencies, percentages, measures of central tendency, and measures of variability were used to organize and summarize the data. Analysis of variance (ANOVA) was used to test the seven hypotheses of this study. Since each independent variable was dichotomized at their respective mean scores, t-tests were used to determine if significant differences existed between the means of low and high subgroups for each independent variable. Moreover, since the dichotomization of the independent variables resulted in unequal cell sizes, an unweighted means analysis (Keppel, 1982) was utilized as the most appropriate statistical solution to the problem of nonorthogonality.
Data were keypunched and analyzed by means of the Statistical Package for the Social Sciences, version X, (Nie et al., 1983) and by Biomedical Computer Programs (BMDP) Statistical Software (Dixon, 1983) available at the Instruction and Research Computer Center at The Ohio State University.

**Chapter Summary**

This chapter provided a detailed description of the methodology of this study. Specifically, a 2x2x2 factorial design was utilized for testing the seven hypotheses of this study. Since this design was nonorthogonal in nature, corrective procedures were noted that minimized the risk of making erroneous interpretations of the results. Procedures for ameliorating sampling error, selection error, frame error, nonresponse error, and measurement error were discussed.
The purpose of this exploratory research was to determine the leadership behavior of joint vocational school superintendents in central Ohio as perceived by their vocational teachers and to examine interactive effects between this perceived leadership behavior and vocational teacher locus of control on job satisfaction. In essence, this research analyzed the interactions between the consideration and initiating structure dimensions of leader behavior and vocational teacher locus of control on vocational teacher job satisfaction. An analysis of main effects was conducted to assist in the understanding of interaction results. An understanding of these interactive effects provided implications for improving school-site leadership within the joint vocational school setting of Ohio.

The target population of this study was Ohio joint vocational school teachers who were employed full-time at their respective schools.
However, given that there were 49 joint vocational schools operating in the state of Ohio, the limited financial resources of this researcher precluded an investigation of the target population. An accessible population was defined as those joint vocational school vocational teachers who were employed full-time at joint vocational schools located within a 60 mile radius of Columbus, Ohio. Twelve joint vocational schools were located within this radius. Vocational teachers from these twelve schools numbered 436. Thus, the frame for the accessible population was N=436. An appropriate sample size (Cochran, 1977) for the accessible population was calculated to be 210 vocational teachers.

This chapter was organized into three sections: (1) characteristics of respondents; (2) description of instrument data; and (3) testing of hypotheses. Descriptive statistics and three-way analysis of variance were utilized to analyze the data.

**Characteristics of Respondents**

A questionnaire was sent to each of the 210 vocational teachers drawn from a simple random sample. These teachers were from the five traditional vocational education service areas: Agricultural Education
(AE), Business and Office Education (BOE), Marketing and Distributive Education (MDE), Home Economics Education (HE), and Trade and Industrial Education (TI). Since the Ohio State Department of Education designated MDE teachers as Distributive Education (DE) teachers, the latter terminology was used throughout the remainder of this study. One hundred seventy-nine questionnaires (85.24 percent) were returned before the data analysis deadline.

However, two days after the first questionnaire mailout, a letter was received from a joint vocational school superintendent that stated, in essence, that he did not want his vocational teachers to participate in the study. Evidently, the teachers at this school were engaged in student recruitment activities, contract negotiations, and program reviews. Understandably, the superintendent did not want his teachers to be burdened with an additional activity. However, nine of the 25 teachers who were sent questionnaires had already responded. Nevertheless, since the superintendent did not want his school to participate in the study, the 25 teachers from his school were excluded from the data analysis. Therefore, the sample size decreased from 210 to 185 vocational teachers. Because of the decrease in sample size, the risk level was
re-calculated (Cochran, 1977). The risk level remained at an alpha of .05.

The total number of questionnaires returned from the 11 schools was 170 (91.89 percent). Since five questionnaires were determined to be unusable, the data sample was comprised of 165 questionnaires (89.19 percent). A summary of the questionnaire returns was presented in Table 4.

<table>
<thead>
<tr>
<th>Wave Activity</th>
<th>Questionnaires Returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Wave Returns</td>
<td>143 77.30</td>
</tr>
<tr>
<td>Second Wave Returns</td>
<td>27  14.59</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><em><em>170</em> 91.89</em>*</td>
</tr>
</tbody>
</table>

* Five questionnaires were returned unusable. Thus, 165 questionnaires comprised the data sample.
** The data sample response rate was lowered to 89.19 percent.

A summary of the usable responses by service area teaching position was presented in Table 5. Trade and Industrial Education teachers
comprised the majority of the data sample with 87 usable questionnaires returned (52.73 percent). Distributive Education teachers had the fewest number of usable questionnaires returned at 8 (4.85 percent).

Table 5
Frequency and Percentage of Respondents by Service Area Teaching Position

<table>
<thead>
<tr>
<th>Service Area Teaching Position</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>22</td>
<td>13.33</td>
</tr>
<tr>
<td>Business and Office Education</td>
<td>32</td>
<td>19.39</td>
</tr>
<tr>
<td>Distributive Education</td>
<td>8</td>
<td>4.85</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>16</td>
<td>9.70</td>
</tr>
<tr>
<td>Trade and Industrial Education</td>
<td>87</td>
<td>52.73</td>
</tr>
<tr>
<td>TOTAL</td>
<td>165</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Characteristics of Respondents by Age. The mean ages of the respondents by service area teaching position was depicted in Table 6. Trade and Industrial Education teachers had the highest mean age at 46.69 years. Home Economics teachers had the lowest mean age at 36.69 years. For the 150 respondents who reported their age, their mean age was 42.17 years.

Table 6
Mean Ages and Standard Deviations of Respondents by Service Area Teaching Position (N=150)*

<table>
<thead>
<tr>
<th>Service Area Teaching Position</th>
<th>Mean Age</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education (N=17)</td>
<td>46.65</td>
<td>12.91</td>
</tr>
<tr>
<td>Business and Office Education (N=29)</td>
<td>38.93</td>
<td>9.86</td>
</tr>
<tr>
<td>Distributive Education (N=8)</td>
<td>38.00</td>
<td>13.87</td>
</tr>
<tr>
<td>Home Economics Education (N=13)</td>
<td>36.69</td>
<td>8.33</td>
</tr>
<tr>
<td>Trade and Industrial Education (N=83)</td>
<td>44.69</td>
<td>10.92</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>42.17</strong></td>
<td><strong>11.20</strong></td>
</tr>
</tbody>
</table>

* Fifteen of the vocational teachers did not report their age.
Characteristics of Respondents by Gender. A summary of the respondents by gender was presented in Table 7. There were 109 males (66.06 percent) and 56 females (33.94 percent) who returned usable questionnaires. Males comprised the majority in the Agricultural Education and Trade and Industrial Education service areas; whereas females comprised the majority in the Business and Office Education, Distributive Education, and Home Economics service areas.

<table>
<thead>
<tr>
<th>Service Area</th>
<th>All Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>AF</td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>22</td>
</tr>
</tbody>
</table>
Characteristics of Respondents by Highest Educational Level Achieved. When the respondents were classified by the highest educational level achieved, 75 of the 150 teachers who reported their educational level indicated that they had no degree. Sixty-four Trade and Industrial Education teachers comprised the majority of this non-degreed group. The next highest frequency belonged to the 43 teachers who reported that they had a bachelors degree plus graduate work. Of this group, Distributive Education teachers had the highest representative percentage (62.50 percent) of the five service areas. Business and Office Education teachers had the highest frequency (7 teachers) and representative percentage (24.14 percent) for those teachers who were classified as having a masters degree only. Of the 150 teachers reporting their educational level, there were 4 teachers (2.67 percent) who had taken course work beyond the masters. These teachers were from Distributive Education, Home Economics, and Business and Office Education service areas. No teachers were classified as having a specialist or doctorate degree. A summary of the highest educational level achieved by the respondents was delineated in Table 8.
Table 8
Frequency and Percentage of Respondents by Service Area and Highest Educational Level Achieved

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Service Area</th>
<th>All Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AE</td>
<td>%</td>
</tr>
<tr>
<td>No Degree</td>
<td>7</td>
<td>41.18</td>
</tr>
<tr>
<td>Bachelors</td>
<td>1</td>
<td>5.88</td>
</tr>
<tr>
<td>Bachelors +</td>
<td>6</td>
<td>35.29</td>
</tr>
<tr>
<td>Masters</td>
<td>3</td>
<td>17.65</td>
</tr>
<tr>
<td>Masters +</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>17</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Characteristics of Respondents by Years Teaching Experience. A summary of the mean years of vocational teaching experience of the respondents was presented in Table 9. Home Economics teachers had the highest mean years of teaching experience at 10.00 years; whereas Business and Office Education teachers had the least mean years of teaching experience at 7.83 years. For the 150 teachers who reported their teaching experience, the overall mean was 8.53 years.
### Table 9
Mean Years Vocational Teaching Experience of Respondents by Service Area

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Mean Years Teaching Experience</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education (N=17)</td>
<td>8.77</td>
<td>4.71</td>
</tr>
<tr>
<td>Business and Office Education (N=29)</td>
<td>7.83</td>
<td>4.68</td>
</tr>
<tr>
<td>Distributive Education (N=8)</td>
<td>8.63</td>
<td>5.71</td>
</tr>
<tr>
<td>Home Economics Education (N=13)</td>
<td>10.00</td>
<td>3.74</td>
</tr>
<tr>
<td>Trade and Industrial Education (N=83)</td>
<td>8.48</td>
<td>5.32</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8.53</td>
<td>5.01</td>
</tr>
</tbody>
</table>

**Characteristics of Respondents by Years Teaching at Present School.**

The mean number of years that respondents have been teaching at their present schools were summarized in Table 10. When compared by service area, each group was relatively close to the overall mean of 6.99 years. Distributive Education teachers have been teaching at their present school...
the longest with a mean of 7.38 years; whereas Business and Office Education teachers have been teaching at their present school the least with a mean of 6.65 years. Fifteen teachers failed to report the number of years that they have been teaching at their present school.

Table 10  
Mean Teaching Years of Respondents at Present School by Service Area

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Mean Teaching Years at Present School</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education (N=17)</td>
<td>7.35</td>
<td>3.97</td>
</tr>
<tr>
<td>Business and Office Education (N=29)</td>
<td>6.65</td>
<td>4.62</td>
</tr>
<tr>
<td>Distributive Education (N=8)</td>
<td>7.38</td>
<td>5.83</td>
</tr>
<tr>
<td>Home Economics Education (N=13)</td>
<td>7.00</td>
<td>5.08</td>
</tr>
<tr>
<td>Trade and Industrial Education (N=83)</td>
<td>7.00</td>
<td>4.68</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6.99</strong></td>
<td><strong>4.63</strong></td>
</tr>
</tbody>
</table>
Handling of Nonrespondents. Of the 185 teachers in the sample, there were 15 teachers (8.11 percent) who did not respond. Since these 15 nonresponses introduced nonresponse error into the study, they were not ignored. If the results of the study were to be generalized to the entire sample and accessible population, nonrespondents had to be considered in the final analysis.

As stated in Chapter III, the assumption was made that late respondents were typical of nonrespondents. A statistical comparison was made between early and late respondents on demographic data and instrument scores. The results of this comparison suggested that late respondents were not significantly different from early respondents. Thus, the 15 nonrespondents were generalized to the data sample and accessible population.

Description of Instrument Data

The data collected by the LBDQ-12, I-E Scale, and JDI instruments were described in this section. Cronbach alpha internal consistency coefficients were computed for each instrument. Mean scores and standard deviations were computed based on the scores obtained on each
instrument. Moreover, the results of the independent variable mean splits were presented in terms of cell sizes, mean scores, and standard deviations for the eight cells that comprised the 2x2x2 design. Finally, since each independent variable was dichotomized by a mean split, independent t-tests were conducted to determine if the mean splits produced significantly different pairs for each independent variable.

**Reliability of Instruments.** For the three commercial instruments utilized in this study, Cronbach standardized item alpha coefficients were calculated. The results of the computations were presented in Table 11. Each of the instruments demonstrated relatively high internal consistency for the data sample of this study. Cronbach alpha coefficients ranged from .67 to .91. Although the .67 coefficient for the I-E Scale appeared low, this value was within the moderately high range of .65 to .79 established and reported by Rotter (1966) for this additive instrument.

**Skewness and Kurtosis.** Descriptive statistics for the scores on the independent and dependent variables were presented in Table 12. The consideration and initiating structure mean scores were 30.42 and 35.92, respectively. The locus of control and total job satisfaction mean scores were 7.30 and 150.11, respectively. An examination of the frequency
distributions of the four instrument scores indicated that the degree of skewness and kurtosis for each instrument was not extreme. Consequently, the assumptions of homogeneity of variance and normality were considered tenable.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Cronbach Alpha Coefficient (N=165)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LBDQ-12</strong></td>
<td></td>
</tr>
<tr>
<td>Consideration Scale</td>
<td>0.91</td>
</tr>
<tr>
<td>Initiating Structure Scale</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Rotter I-F Scale</strong></td>
<td>0.67</td>
</tr>
<tr>
<td><strong>JDI</strong></td>
<td></td>
</tr>
<tr>
<td>Work Scale</td>
<td>0.78</td>
</tr>
<tr>
<td>Pay Scale</td>
<td>0.78</td>
</tr>
<tr>
<td>Promotion Scale</td>
<td>0.84</td>
</tr>
<tr>
<td>Supervision Scale</td>
<td>0.90</td>
</tr>
<tr>
<td>Job in General Scale</td>
<td>0.91</td>
</tr>
</tbody>
</table>
Table 12
Instrument Mean Scores and Standard Deviations by Variable (N=165)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration</td>
<td>30.42</td>
<td>8.40</td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>35.92</td>
<td>6.62</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>7.30</td>
<td>3.30</td>
</tr>
<tr>
<td>Total Job Satisfaction</td>
<td>150.11</td>
<td>38.11</td>
</tr>
</tbody>
</table>

2x2x2 Cell Characteristics. A mean split was conducted on each of the three independent variables so that the 2x2x2 design could be operationalized. Cell size, mean score, and the standard deviation for each of the eight cells created by the mean splits were depicted in Figure 4. Since cell sizes were unequal, the research design for this study was unbalanced. Level I and Level II marginals were computed and were displayed in Tables 13 and 14, respectively.
Figure 4

Cell Size, Total Job Satisfaction Mean Score, and Standard Deviation of Respondents Above and Below the Mean on the Consideration, Initiating Structure, and Locus of Control Variables
### Table 13
Level I Marginals by Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration</td>
<td>Low</td>
<td>86</td>
<td>138.6</td>
<td>34.99</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>79</td>
<td>162.6</td>
<td>37.61</td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>Low</td>
<td>80</td>
<td>141.6</td>
<td>36.46</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>85</td>
<td>158.1</td>
<td>38.08</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>Internal</td>
<td>81</td>
<td>160.8</td>
<td>34.74</td>
</tr>
<tr>
<td></td>
<td>External</td>
<td>84</td>
<td>139.8</td>
<td>38.57</td>
</tr>
</tbody>
</table>

### Table 14
Level II Marginals by Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Consideration is Low)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>Low</td>
<td>54</td>
<td>137.7</td>
<td>38.46</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>32</td>
<td>140.2</td>
<td>28.71</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>Internal</td>
<td>39</td>
<td>142.1</td>
<td>31.50</td>
</tr>
<tr>
<td></td>
<td>External</td>
<td>47</td>
<td>135.7</td>
<td>37.73</td>
</tr>
<tr>
<td>(Consideration is High)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>Low</td>
<td>26</td>
<td>149.7</td>
<td>31.05</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>53</td>
<td>169.0</td>
<td>39.15</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>Internal</td>
<td>42</td>
<td>178.1</td>
<td>28.22</td>
</tr>
<tr>
<td></td>
<td>External</td>
<td>37</td>
<td>145.1</td>
<td>39.51</td>
</tr>
</tbody>
</table>
### Table 14 (continued)

(Initiating Structure is Low)

<table>
<thead>
<tr>
<th>Locus of Control</th>
<th>Internal</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Control</td>
<td>Internal</td>
<td>35</td>
<td>152.7</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>External</td>
<td>45</td>
<td>132.9</td>
</tr>
</tbody>
</table>

(Initiating Structure is High)

<table>
<thead>
<tr>
<th>Locus of Control</th>
<th>Internal</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Control</td>
<td>Internal</td>
<td>46</td>
<td>166.9</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>External</td>
<td>39</td>
<td>147.8</td>
</tr>
</tbody>
</table>

**Independent t-tests.** For each independent variable, independent t-tests were conducted to determine if the mean splits produced significantly different groups on each variable. Since the mean splits created unequal group sizes for each dichotomized independent variable, pooled variance estimates were computed. The results of the t-tests indicated that each independent variable was comprised of two significantly different groups. A summary of the t-test results were shown in Table 15.
Table 15
Summary of t-test Results by Independent Variable Levels

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>DF</th>
<th>t-Pooled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration</td>
<td>Low</td>
<td>81</td>
<td>23.32</td>
<td>5.04</td>
<td>163</td>
<td>20.11*</td>
</tr>
<tr>
<td>Consideration</td>
<td>High</td>
<td>84</td>
<td>37.54</td>
<td>3.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>Low</td>
<td>74</td>
<td>30.16</td>
<td>4.52</td>
<td>163</td>
<td>17.09*</td>
</tr>
<tr>
<td>Initiating Structure</td>
<td>High</td>
<td>91</td>
<td>40.74</td>
<td>3.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locus of Control</td>
<td>Internal</td>
<td>70</td>
<td>4.16</td>
<td>1.65</td>
<td>163</td>
<td>16.80*</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>External</td>
<td>95</td>
<td>9.53</td>
<td>2.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
Testing of Hypotheses

The results of the hypothesis tests were presented in the three subsections that follow. In accordance with the three-way factorial design, the logic of analysis was to first examine for a significant three-way interaction. Since Hypothesis 1 stated, in effect, that there would be no significant three-way interaction, the results of its test were presented first. Possible two-way interactions were examined next. Since Hypotheses 2, 3, and 4 pertained to two-way interactions, the results of their respective tests were presented in the second subsection. The final step examined for possible main effects. Since Hypotheses 5, 6, and 7 pertained to main effects, the results of their respective tests were presented in the third subsection. The results of the significance tests of the seven hypothesis were summarized in Table 16.

Three-Way Interaction Hypothesis. Research Hypothesis 1 stated:

There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being on one of the following leadership dimensions:

(a) HC-HIS
(b) HC-LIS
(c) LC-HIS
(d) LC-LIS
<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration (C)</td>
<td>1</td>
<td>13071.50</td>
<td>13071.50</td>
<td>11.40*</td>
</tr>
<tr>
<td>Initiating Structure (IS)</td>
<td>1</td>
<td>2725.78</td>
<td>2725.78</td>
<td>2.38</td>
</tr>
<tr>
<td>Locus of Control (LocCon)</td>
<td>1</td>
<td>8608.70</td>
<td>8608.70</td>
<td>7.51*</td>
</tr>
<tr>
<td>CxIS</td>
<td>1</td>
<td>2091.35</td>
<td>2091.35</td>
<td>1.82</td>
</tr>
<tr>
<td>CxLocCon</td>
<td>1</td>
<td>6483.36</td>
<td>6483.36</td>
<td>5.65*</td>
</tr>
<tr>
<td>ISxLocCon</td>
<td>1</td>
<td>633.31</td>
<td>633.31</td>
<td>0.55</td>
</tr>
<tr>
<td>CxISxLocCon</td>
<td>1</td>
<td>6501.83</td>
<td>6501.83</td>
<td>5.67*</td>
</tr>
<tr>
<td>Error (Within Cell)</td>
<td>157</td>
<td>180061.55</td>
<td>1146.88</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>164</td>
<td>220177.38</td>
<td>1342.55</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05
The significance test result for this hypothesis was presented in Table 16 in the row of the table designated as CxISxLocCon. Since the F-value of 5.67 was significant, Hypothesis 1 was rejected.

As a method for facilitating the assessment of the three-way interaction, the interaction was plotted by using the cell means of the three-way matrix depicted in Table 17. The plot of the interaction was shown in Figure 5.

The three-way interaction depicted in Figure 5 was represented by a disordinal and an ordinal interaction. The disordinal interaction was between the consideration and initiating structure variables at the internal level of the locus of control variable. The ordinal interaction was between the consideration and initiating structure variables at the external level of the locus of control variable. An inspection of the two plots indicated that the interaction of the consideration and initiating structure variables changed at different levels of the locus of control variable. In other words, the two-way interaction of consideration and initiating structure was different for internals than it was for externals. Thus, any statements that described the interaction of consideration and initiating structure must be made in reference to the level of control.
Table 17
Matrix of Three-Way Factorial Cell Means

<table>
<thead>
<tr>
<th>Initiating Structure</th>
<th>Locus of Control</th>
<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internal Consideration</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Low</td>
<td>148.8</td>
<td>160.1</td>
<td>129.4</td>
</tr>
<tr>
<td>High</td>
<td>132.5</td>
<td>185.3</td>
<td>147.9</td>
</tr>
</tbody>
</table>
Figure 5

Plot of Three-Way Interaction
Four major findings were observed from the three-way interaction plot shown in Figure 5:

1. Internally controlled joint vocational school vocational teachers who perceived their superintendent to be on the HC-HIS dimensions of leader behavior had a higher total job satisfaction mean score ($\bar{X}=185.3$) than externally controlled vocational teachers who perceived their superintendent to be on the HC-HIS dimensions ($\bar{X}=147.7$).

2. Internally controlled joint vocational school vocational teachers who perceived their superintendent to be on the HC-LIS dimensions of leader behavior had a higher total job satisfaction mean score ($\bar{X}=160.1$) than externally controlled vocational teachers who perceived their superintendent to be on the HC-LIS dimensions ($\bar{X}=140.7$).

3. Internally controlled joint vocational school vocational teachers who perceived their superintendent to be on the LC-HIS dimensions of leader behavior had a lower total job satisfaction mean score ($\bar{X}=132.5$) than externally controlled vocational teachers who perceived their
superintendent to be on the LC-HIS dimensions ($\bar{x}=147.9$)

4. Internally controlled joint vocational school vocational teachers who perceived their superintendent to be on the LC-LIS dimensions of leader behavior had a higher total job satisfaction mean score ($\bar{x}=148.8$) than externally controlled vocational teachers who perceived their superintendent to be on the LC-LIS dimensions ($\bar{x}=129.4$).

In sum, the total job satisfaction mean scores of internally and externally controlled vocational teachers differed on each of the corresponding dimensions of leader behavior. Consequently, Hypothesis 1 was rejected. Moreover, the three-way interaction indicated that internally controlled vocational teachers had the highest total job satisfaction mean score under a superintendent who they perceived to be on the HC-HIS leader behavior dimensions ($\bar{x}=185.3$). However, for externally controlled vocational teachers, the highest total job satisfaction mean score was shared, in essence, with two leader dimension pairs: LC-HIS ($\bar{x}=147.9$) and HC-HIS ($\bar{x}=147.7$).

On the other hand, the lowest total job satisfaction mean score for internally controlled vocational teachers was under a superintendent who
they perceived to be on the LC-HIS leader dimension (\(\bar{x} = 132.5\)). The lowest total job satisfaction mean score for externally controlled vocational teachers was under a superintendent who they perceived to be on the LC-LIS dimensions of leader behavior (\(\bar{x} = 129.4\)).

**Two-Way Interaction Hypotheses.** Research Hypothesis 2 stated:

There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of consideration from those vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of initiating structure.

The significance test result for this hypothesis was shown in Table 16 in the row designated as CxIS. Since the F-value of 1.82 was not significant, Hypothesis 2 was retained. Therefore, there was no significant two-way interaction between the consideration and initiating structure variables on job satisfaction. The absence of an interaction between the consideration and initiating structure variables indicated that the effects of the consideration variable on job satisfaction did not change at the different levels of initiating structure.

A more focused analysis was made by examining the 2x2 matrix of the cell means for the consideration and initiating structure variables.
found in Table 18. The matrix cell values indicated that vocational teachers had a higher total job satisfaction mean score under superintendents who they perceived to be on the HC-HIS dimensions of leader behavior ($\bar{X} = 169.0$). Vocational teachers had the lowest total job satisfaction mean score under superintendents who they perceived to be on the LC-LIS dimensions of leader behavior ($\bar{X} = 135.7$). Although a plot of the matrix cell means suggested an ordinal interaction as depicted in Figure 6, the observed interaction was not significant at an alpha level of .05.

Table 18
Consideration and Initiating Structure Matrix of Cell Means

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiating Structure</td>
<td>Low</td>
<td>137.7</td>
</tr>
<tr>
<td>High</td>
<td>140.2</td>
<td>169.0</td>
</tr>
</tbody>
</table>
Figures

Plot of Cell Means for Consideration and Initiating Structure Matrix
Research Hypothesis 3 stated:

There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of initiating structure.

The significance test result for this hypothesis was shown in Table 16 in the row designated as ISxLocCon. Since the F-value of 0.55 was not significant, Hypothesis 3 was retained. Therefore, there was no significant interaction between the variables initiating structure and locus of control. In Table 19, a 2x2 matrix of the cell means for the initiating structure and locus of control variables was presented. A plot of the cell means was depicted in Figure 7. The cell mean results indicated that internally controlled vocational teachers had a higher total job satisfaction mean score across both levels of initiating structure (HIS: \( \bar{X}=166.9 \); LIS: \( \bar{X}=152.7 \)) than did externally controlled vocational teachers across both levels of initiating structure (HIS: \( \bar{X}=147.8 \); LIS: \( \bar{X}=132.9 \)).
### Table 19
Initiating Structure and Locus of Control Matrix of Cell Means

<table>
<thead>
<tr>
<th>Locus of Control</th>
<th>Initiating Structure Low</th>
<th>Initiating Structure High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>152.7</td>
<td>166.9</td>
</tr>
<tr>
<td>External</td>
<td>132.9</td>
<td>147.8</td>
</tr>
</tbody>
</table>

### Figure 7
Plot of Cell Means for Initiating Structure and Locus of Control Matrix
Research Hypothesis 4 stated:

There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of consideration.

The significance test result for this hypothesis is shown in Table 16 in the row designated as CxLocCon. Since the F-value of 5.65 was significant, Hypothesis 4 was rejected. Thus, there was a significant two-way interaction between the consideration and locus of control variables. The cell means for the consideration and locus of control matrix were presented in Table 20. A plot of the ordinal interaction was depicted in Figure 8. The interaction indicated that the effect of the consideration variable on job satisfaction changed at different levels of the locus of control variable. Specifically, internally controlled vocational teachers who perceived their superintendent to be on the HC dimension on leader behavior had a higher total job satisfaction mean score ($\bar{X}=178.1$) than internally controlled vocational teachers who perceived their superintendent to be on the LC dimension of leader behavior ($\bar{X}=142.1$). Similarly, externally controlled vocational teachers who perceived their superintendent to be on the HC dimension had a higher total job satisfaction mean score ($\bar{X}=145.1$) than externally controlled
vocational teachers who perceived their superintendent to be on the LC
dimension (X=135.7). Furthermore, internally and externally controlled
vocational teachers who perceived their superintendent to be high in
consideration had a higher total job satisfaction mean score than
internally and externally controlled vocational teachers who perceived
their superintendent to be low in consideration.

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>142.1</td>
<td>178.1</td>
</tr>
<tr>
<td>External</td>
<td>135.7</td>
<td>145.1</td>
</tr>
</tbody>
</table>
Figure 8

Plot of Cell Means for Consideration and Locus of Control Matrix
Main Effects Hypotheses. Research Hypothesis 5 stated:

There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being high on the leader behavior dimension of consideration from those who perceive their superintendent as being low on the leader behavior dimension of consideration.

The significance test result for this hypothesis was shown in Table 16 in the row designated as Consideration (C). Since the F-value of 11.40 was significant, Hypothesis 5 was rejected. Therefore, there was a main effect for the consideration variable. In other words, regardless of the other variables, this main effect indicated that vocational teachers who perceived their superintendent to be on the HC dimension of leader behavior had a higher total job satisfaction mean score than vocational teachers who perceived their superintendent to be on the LC dimension of leader behavior. Specifically, as indicated by the Level I marginals shown in Table 13, vocational teachers who perceived their superintendent to be high in consideration had a higher total job satisfaction mean score ($\bar{X}=162.6$) than vocational teachers who perceived their superintendent to be low in consideration ($\bar{X}=138.6$). A plot of this main effect was depicted in Figure 9.
Figure 9

Plot of Consideration Main Effect
Research Hypothesis 6 stated:

There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being high on the leader behavior dimension of initiating structure from those who perceive their superintendent as being low on the leader behavior dimension of initiating structure.

The significance test result for this hypothesis is shown in Table 16 in the row designated as Initiating Structure (IS). Since the F-value of 2.38 was not significant, Hypothesis 6 was retained. Thus, there was no main effect for the initiating structure variable. As indicated by the Level I marginals presented in Table 13, the total job satisfaction mean scores for vocational teachers who perceived their superintendent as being high on initiating structure and low on initiating structure were 158.1 and 141.6, respectively. The absence of a main effect meant that these two means were not significantly different.

Research Hypothesis 7 stated:

There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who are internally controlled and those who are externally controlled.

The significance test result for this hypothesis is shown in Table 16 in the row designated as Locus of Control (LocCon). Since the F-value of
7.51 was significant, Hypothesis 7 was rejected. Therefore, there was a significant main effect for the locus of control variable. As indicated by the locus of control Level I marginals that were presented in Table 13, internally controlled vocational teachers, regardless of the other variables, had a significantly higher total job satisfaction mean score ($\bar{X} = 160.8$) than externally controlled vocational teachers ($\bar{X} = 139.8$). A plot of this main effect was depicted in Figure 10.

![Plot of Locus of Control Main Effect](image)

**Figure 10**

Plot of Locus of Control Main Effect
Chapter Summary

The accessible population of this study was comprised of 436 vocational teachers who were employed full-time at the 12 joint vocational schools located within a 60 mile radius of Columbus, Ohio. A simple random sample of 210 vocational teachers was drawn from the accessible population. During the data collection period, one joint vocational school was deleted from the study at the request of the superintendent of that school. Consequently, the accessible population was decreased to 185 teachers at 11 joint vocational schools. The overall response was 170 questionnaires returned (91.89 percent). The number of useable questionnaires returned was 165 (89.19 percent).

The data sample was comprised of the following number of teachers from the five traditional vocational education service areas: Agricultural Education (N=22); Business and Office Education (N=32); Distributive Education (N=8); Home Economics Education (N=16); and Trade and Industrial Education (N=87). Males comprised about 66 percent of the data sample. Of the 150 teachers who provided demographic data, the mean age of the teachers was 42.17 years. Fifty percent of the teachers had no degree. The majority of the non-degreed teachers were classified as Trade and Industrial Education teachers. Approximately 11 percent of
the teachers had a masters degree, with the majority of these teachers being Business and Office Education teachers. The mean years of vocational teaching experience was approximately 8.5 years. The mean years of vocational teaching experience at their respective schools was about 7 years.

The three instruments used in this study (LBDQ-12, I-E Scale, and JDI) demonstrated relatively high internal consistency. Cronbach alpha coefficients ranged from .67 to .91 for the data sample. The scores obtained on each instrument showed fairly normal skewness and kurtosis. The mean split dichotomization of the three independent variables produced two significantly different groups for each variable. Since cell sizes for the 2x2x2 factorial design were unequal, the design was unbalanced.

In brief, the testing of the hypotheses found the following:

**Hypothesis 1:** Rejected. There was a significant three-way interaction between the consideration, initiating structure, and locus of control variables on job satisfaction.

**Hypothesis 2:** Retained. There was no significant two-way interaction between the consideration and initiating structure variables on job satisfaction.
Hypothesis 3: Retained. There was no significant two-way interaction between the variables initiating structure and locus of control on job satisfaction.

Hypothesis 4: Rejected. There was a significant two-way interaction between the variables consideration and locus of control on job satisfaction.

Hypothesis 5: Rejected. There was a significant main effect of the consideration variable on job satisfaction.

Hypothesis 6: Retained. There was no significant main effect of the initiating structure variable on job satisfaction.

Hypothesis 7: Rejected. There was a significant main effect of the locus of control variable on job satisfaction.
CHAPTER V

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

This chapter presented a summary of the problem, the research hypotheses, the significance of the problem, the methodology, and the findings. Conclusions were drawn from the findings. Based on the findings and conclusions, implications were made that suggested how this study contributed to the knowledge and understanding of vocational education leadership in the joint vocational school setting. From the conclusions and implications, recommendations were offered that were appropriate for present practice and future research.

Summary

Statement of the Problem

A review of the organizational behavior literature found that subordinate locus of control may be a significant personality factor influencing leader behavior and subordinate job satisfaction in the formal organization. Although limited research was found that investigated the
interactive effects of leader behavior, locus of control, and job satisfaction, the results of the few studies that were conducted suggested that subordinates with an internal locus of control orientation were more satisfied with their job under a leader who they perceived as having a considerate style of leadership than under a leader who they perceived as having a directive style of leadership. On the other hand, the research results suggested that subordinates with an external locus of control orientation were more satisfied with their job under a leader who they perceived as having a directive style of leadership than under a leader who they perceived as having a considerate leadership style. No studies were found that investigated leader behavior, locus of control, and job satisfaction as perceived by the subordinates in the vocational education setting.

Specifically, if Ohio joint vocational school superintendents are to strive for school-site leadership improvement, an understanding of the interactions between superintendent leadership behavior, locus of control, and job satisfaction as perceived by the vocational teachers of their respective schools appeared to be a necessary prerequisite. Until these interactions were determined and understood, efforts to improve
leadership within the joint vocational school may be problematic. Consequently, the purpose of this study was to address the problem of how to ameliorate this problematic situation so that joint vocational school leadership could be enhanced.

Hypotheses of the Study

Seven major research hypotheses were formulated to achieve the purpose of this study. The following hypotheses were tested at an alpha level of .05.

1. There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being on one of the following leadership dimensions:

   (a) HC-HIS
   (b) HC-LIS
   (c) LC-HIS
   (d) LC-LIS

2. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of consideration from those vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of Initiating structure.
3. There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of initiating structure.

4. There will be no difference in the total job satisfaction scores of internally and externally controlled joint vocational school vocational teachers who perceive their superintendent as being either low or high on the leadership dimension of consideration.

5. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being high on the leader behavior dimension of consideration from those who perceive their superintendent as being low on the leader behavior dimension of consideration.

6. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who perceive their superintendent as being high on the leader behavior dimension of initiating structure from those who perceive their superintendent as being low on the leader behavior dimension of initiating structure.

7. There will be no difference in the total job satisfaction scores of joint vocational school vocational teachers who are internally controlled and those who are externally controlled.
Significance of the Study

This study was considered significant from a leadership research perspective and from an effective schools research perspective. First, from a leadership research perspective, there have been very few studies that have investigated the relationships of subordinate perspectives of their locus of control, job satisfaction, and leader behavior. Although the research that has been conducted suggested that future research in this area should be fruitful, no studies were found that investigated the interactive effects of these variables in the vocational education school setting. Thus, this study was considered significant in that it attempted to fill a leadership research void.

Second, from an effective schools research perspective, researchers have shown that school-site leadership was essential for school improvement. Moreover, effective schools research has found that quality school-site leadership was strongly associated with teacher job satisfaction. Therefore, since this study attempted to expand the understanding of the leader-subordinate relationship in Ohio joint vocational schools so that implications for improving school-site leadership could emerge, this study was considered justifiable and essential.
Methodology of the Study

Research Design. The research design utilized in this exploratory study was classified as an unbalanced, 2x2x2 factorial design. The three independent variables, consideration, initiating structure, and locus of control, formed the three dimensions of the design. Each independent variable was dichotomized at its respective mean score to operationalize the 2x2x2 design. Since the independent variables were not manipulated, the study was non-experimental. The dependent variable in this study was job satisfaction.

Subject Selection. The accessible population of this study was Ohio vocational teachers who were employed full-time at joint vocational schools located within a 60 mile radius of Columbus, Ohio. Twelve joint vocational schools were identified as being located within this radius. The frame for the accessible population was determined to be N=436. An appropriate sample size was calculated to be 210 teachers. A simple random sample was drawn.

Instrumentation. Three well-known instruments were used in this study to obtain measures on the three independent variables and on the dependent variable. The Leader Behavior Description Questionnaire-Form
12 was used to obtain measures on the consideration and initiating structure variables. The Rotter Internal-External Control Scale was used to measure the third independent variable, locus of control. The dependent variable, job satisfaction, was measured by the Job Descriptive Index. Demographic data were collected for the purpose of describing the sample.

**Data Collection.** Data for this study were collected through the use of a mail questionnaire that incorporated the three well-known instruments and the demographic questions. One week after the initial mail-out, a reminder letter was sent to everyone in the sample. Approximately three weeks after the original mail-out, a second mail-out questionnaire was sent to the nonrespondents. Questionnaires received six weeks after the original mailing were not included in the data analysis.

**Analysis of Data.** Descriptive statistics were used to organize and summarize the data. Analysis of variance was used to test the seven research hypotheses. Data were keypunched and analyzed by means of the Statistical Package for the Social Sciences, version X, (Nie et al., 1983) and by Biomedical Computer Programs Statistical Software (Dixon, 1983)
available at the Instruction and Research Computer Center at the Ohio State University.

Findings and Conclusions

Characteristics of Respondents. During the data collection period, one vocational school was deleted from the study at the request of the superintendent from that school. Thus, the accessible population was decreased to 185 teachers at 11 schools. The overall response was 170 questionnaires returned (91.89 percent). The number of usable returns was 165 (89.19 percent).

The majority of the data sample was comprised of males (66 percent). Of the five traditional vocational education service areas, Trade and Industrial Education teachers had the greatest number of teachers who returned useable questionnaires (N=87). Distributive Education had the least number of teachers in the data sample (N=8). Of the 150 teachers who provided demographic data, the mean age was 42.17 years. Seventy-five teachers (50 percent) had no college degree. Sixty-four of the non-degreed teachers were from the Trade and Industrial Education service area. Approximately 11 percent of the
teachers had a masters degree, with the majority of these teachers being from the Business and Office Education service area. The mean years of vocational teaching experience was approximately 8.5 years. The mean years of vocational teaching experience at their present school was about 7 years.

**Description of Instrument Data.** Each of the three well-known instruments demonstrated relatively high internal consistency. Cronbach alpha coefficients ranged from .67 to .91 for the data sample. The mean of the consideration and initiating structure scores were 30.42 and 35.92, respectively. The locus of control mean score was 7.30. The mean for the total job satisfaction score was 150.11. The distributions for each of these four variables demonstrated relatively normal skewness and kurtosis. The mean split dichotomization of the three independent variables produced two significantly different groups for each variable. Since cell sizes for the 2x2x2 factorial design were unequal, the design was nonorthogonal.

**Testing of Hypotheses.** Conclusions were drawn from the findings of the tests of hypotheses. The order in which the hypotheses were presented in this section was reversed from earlier presentations.
Presenting the hypotheses in the order of main effects, two-way interactions, and three-way interaction groupings allowed for a more logical and understandable presentation of conclusions than if they were presented in the order of previous chapters. Specifically, conclusions made about significant main effects needed to be qualified by the significant two-way interaction. Likewise, conclusions drawn from the significant two-way interaction needed to be qualified by the significant three-way interaction. Therefore, conclusions pertaining to the findings of the three main effect hypotheses were presented first. Next, conclusions pertaining to the findings of the three two-way interaction hypotheses were presented. Finally, conclusions about the significant three-way interaction were presented. Since this research was exploratory and nonexperimental, cause-and-effect inferences were not made.

**Main Effects**

The results of the significance test for Hypothesis 5 indicated that there was a significant main effect of the consideration variable on job satisfaction. An examination of the consideration main effect plot revealed that vocational teachers had a higher total job satisfaction mean.
score under a superintendent who they perceived to be high in consideration than under a superintendent who they perceived to be low in consideration. Consequently, for the accessible population of this study, one may conclude that the leadership dimension of consideration had a significant effect upon the job satisfaction of vocational teachers.

The results of the significance test for Hypothesis 6 indicated that there was no main effect for the initiating structure variable on job satisfaction. In other words, whether vocational teachers perceived their superintendent as being either high or low on the initiating structure dimension, the overall effect of initiating structure on job satisfaction was statistically equivalent. From this finding, one may conclude that the initiating structure dimension was not supported in this study. However, this apparent lack of support for the initiating structure dimension will be qualified in the interaction conclusion sections.

The results of the significance test for Hypothesis 7 indicated that there was a main effect of the locus of control variable on job satisfaction. An examination of the locus of control main effect plot revealed that internally controlled vocational teachers had a higher total job satisfaction mean score than externally controlled vocational
teachers. From this finding, one may conclude that the personality dimension of locus of control may be an important factor influencing job satisfaction.

In sum, conclusions drawn from the findings of the main effect significance tests suggested that the leader behavior dimension of consideration and the personality dimension of locus of control were supported in this study. However, final conclusions about the lack of support for the initiating structure dimension could not be made until interactive effects were analyzed.

**Two-Way Interactions**

The result of the significance test for Hypothesis 2 indicated that there was no significant two-way interaction between the consideration and initiating structure variables on job satisfaction. An examination of the plot of the cell means for consideration and initiating structure revealed that vocational teachers who perceived their superintendent to be high on both dimensions of leader behavior had the highest total job satisfaction mean score. On the other hand, vocational teachers who perceived their superintendent to be low on both dimensions of leader behavior had the lowest total job satisfaction mean score. One may
conclude from these findings that the high-high leader paradigm was supported. However, since there was a higher order interaction, this conclusion may need further refinement.

The result of the significance test for Hypothesis 3 indicated that there was no significant two-way interaction between the initiating structure and locus of control variables. An examination of the plot of the cell means for these variables revealed that internally controlled vocational teachers had higher total job satisfaction mean scores across both levels of initiating structure than did externally controlled vocational teachers. Since the slopes of the internal and external plots rised at essentially the same rate, one may conclude that the job satisfaction of internally and externally controlled teachers under a structured leader increased in a linear manner, with internals having the higher job satisfaction.

The results of the significance test for Hypothesis 4 indicated that there was a significant two-way interaction between the consideration and locus of control variables. An examination of the plot for this interaction revealed that internally controlled vocational teachers who perceived their superintendent as being high in consideration had a higher
total job satisfaction mean score than externally controlled vocational teachers who perceived their superintendent as being high in consideration. Moreover, an examination of the slopes of the lines representing internals and externals indicated that the internal line had the steeper slope. One may conclude from this finding that the job satisfaction of both internals and externals increased as consideration increased, with the level of consideration having a greater effect on internals.

Three-Way Interaction

The result of the significance test for Hypothesis 1 indicated that there was a significant three-way interaction between the independent variables on job satisfaction. An examination of the three-way interaction plot revealed the most interesting conclusions of the study. The high-high paradigm appeared tenable for only the internally controlled vocational teachers. The externally controlled vocational teachers had, for all practical purposes, the same total job satisfaction mean score under a superintendent who they perceived as being high in initiating structure and either low or high in consideration. However, the high-high paradigm also maintained that a leader who was low on both
dimensions had the least optimal leadership style of the four dimension pairs. For internals, this was not supported as indicated by the lowest total job satisfaction mean score under superintendents who were perceived as being low in consideration and high in initiating structure. For externals, the low-low dimension received the lowest total job satisfaction mean score, which was consistent with the high-high paradigm framework. Thus, one can conclude that the high-high paradigm appeared tenable for internals, although the low-low dimension of the paradigm was not supported. Conversely, the high-high paradigm was not supported by externals, although the low-low dimension of this framework appeared tenable.

**Implications and Recommendations**

The findings and conclusions of this study provided practical implications and recommendations for the improvement of school-site leadership in central Ohio joint vocational schools. While the results of this study were generalizable to the accessible population, school-site leaders of other schools, and anyone else interested in leadership and leadership development, may find the implications illuminating and the
recommendations beneficial.

**Consideration.** The finding that the leadership dimension of consideration had a significant effect upon the job satisfaction of vocational teachers supported the findings of Halpin (1966), Pryer and Distefano (1971), Harlan (1980), Young (1982), and Ramsden (1983). These scholars reported that subordinates who perceived their leader as being high in consideration had greater job satisfaction than subordinates who perceived their leader as being low in consideration. In this study, considerate leaders had teachers who were satisfied with their job. Evidently, vocational teaching and considerate leadership made a good match.

The conclusion made about consideration in this study illuminated an important implication. Human relation techniques of the superintendents appeared to be important to the vocational teachers of this study. This implication was consistent with the findings of Purkey and Smith (1984) in their review of effective schools. In essence, school-site leaders who encouraged collaborative planning and collegial relationships had higher satisfied teachers and higher achieving schools than those leaders who tended to ignore the human relations approach to administration.
Moreover, school-site leaders who were open to suggestions for improving school policy were viewed by their teachers in a positive light. By and large, the effective schools research found that school-site leaders who involved their teachers in the school decision-making process had schools that were enviable places to work.

Therefore, given the importance of a considerate style of leadership to the enhancement of school effectiveness, the recommendation was made that school-site leaders needed to be knowledgeable and skilled in human relation techniques. An annual assessment of the level of considerate behavior demonstrated by the superintendent, as perceived by the teachers, would help identify interpersonal skill training and development needs. Low scores on the LBDQ-12 consideration scale, for example, would signal the superintendent that his or her human relations approach needed improvement. Inservice training that emphasized self-discovery through behavior modeling and role playing with video taped feedback might assist in improving the human relation skills of the superintendent.

Initiating Structure. The conclusion that initiating structure was not supported in this study was consistent with the conclusion made by
Young (1982). However, the apparent lack of support for this conclusion was inconsistent with the contentions made by Blake and Mouton (1964), Fast (1964), and Halpin (1966) who posited, in essence, that an effective leader was committed to obtaining organizational goals and objectives and who made clear his or her expectations of subordinates. In other words, an effective leader was, in part, oriented toward structure.

Although there was no statistically significant main effect for initiating structure, a plot of the LIS and HIS cell means clearly suggested that teacher job satisfaction increased as initiating structure increased. Thus, for practical purposes, the vocational teachers in this study evidently were more satisfied under a superintendent who was structured than under one who was not so structured.

The importance of initiating structure was consistent with the findings from studies done on effective schools. School-site leaders who created order and discipline, and who demonstrated a commitment to academic goals, were considered by their subordinates as being effective leaders. Therefore, the lack of a significant main effect for initiating structure in this study notwithstanding, the fact that initiating structure played an important role in achieving effective schools remained tenable.
Therefore, the recommendation was made that superintendents annually assess their level of structure as perceived by their teachers. The LBDQ-12 initiating structure scale would help identify initiating structure training and development needs. For example, low scores on the initiating structure dimension might indicate that a leader had not demonstrated a strong drive for task completion or had not shown a strong drive for the pursuit of academic goals. Maybe self-confidence and assertiveness were lacking. Whatever the case may be, the problem of a lack of structure can be ameliorated by the superintendent by actively pursuing a personal development program. Numerous programs are available in self-improvement books, programmed instruction, and correspondence courses. Furthermore, active involvement in professional organizations where one can receive new assignments and responsibilities would enhance the ability of the superintendent to structure the work of others to get the job done, while, concomitantly, not sacrificing school effectiveness.

Locus of Control. The conclusion that locus of control may be an important factor influencing teacher job satisfaction supported a similar conclusion made by other researchers (Pryer and Distefano, 1971; Runyon,
1973; Evans, 1974; Mitchell, Smyser, and Weed, 1975; and Durand and Nord, 1976). The findings of this study suggested that internally controlled vocational teachers had a higher job satisfaction than externally controlled vocational teachers. Since teacher job satisfaction contributed to effective schools, the issue of whether a superintendent should hire only internally controlled vocational teachers was raised. Perhaps externally controlled teachers in this study tended to be dissatisfied with organizational life in general since they believed that they had little control over it. Research is needed to determine whether internals or externals have the highest rate of turnover and absenteeism in joint vocational schools. Findings from such research would help answer the question of whether internals or externals contribute more to effective schools.

Since the locus of control concept was found to be a significant factor influencing teacher job satisfaction, perhaps preservice and inservice vocational education leadership development programs may find this concept a fruitful topic of study. Furthermore, research is needed to learn how vocational teacher age, sex, education level, and teaching experience are related to locus of control. Do older teachers tend to be
internals or externals? Do women tend to be more external than men? Do the number of years teaching experience affect the internality or externality of the individual? Does the level of education attained have an effect on the locus of control orientation?

Moreover, there is a need for research to investigate the locus of control of the school-site leader in relation to leader behavior. Perhaps external superintendents demonstrated directive behavior or coercive power because they believed that they were not able to influence others through social interaction. By initiating a high degree of structure, external superintendents may have found better success in controlling the work situation than by attempting to demonstrate a high level of consideration. With additional research on the locus of control phenomena, this dimension of personality may yield a better understanding of why leaders behave the way they do.

Two-Way Interactions. When the consideration and initiating structure variables were crossed in this study, the conclusion was made that the high-high leader paradigm was supported. This result was consistent with the conclusions made by Blake and Mouton (1964), Fast (1964), Halpin (1966), Sergiovanni and Starret (1971), Williams (1980),
and Pirzadeh (1984). These scholars posited, in essence, that subordinates had greater job satisfaction under a leader who was high in both consideration and structure than under any other leadership dimension pair.

However, when the locus of control and initiating structure variables were crossed, the conclusion that internals had greater job satisfaction than externals under a superintendent perceived as being directive was in conflict with the findings reported by Runyon (1973), Evans (1974), and Mitchell, Smyser, and Weed (1975). These scholars reported, in effect, that the job satisfaction of externals would be greater than internals under conditions of structured leadership. The rationale was that internals were dissatisfied under structured leadership since they were unable to control their destiny. Externals, on the other hand, were frustrated under non-structured leadership since the lack of structure meant that their destiny was controlled by them alone, which was contrary to their belief.

The inconsistency that was found in this study perhaps may be explained simply by the notion that externally controlled teachers were dissatisfied with the joint vocational school organization in general. On
the other hand, internally controlled teachers may have preferred structured leaders who were committed to achieving organizational goals and objectives. Studies of similar purpose and design should be conducted with other subordinate populations in the central Ohio joint vocational schools, such as academic teachers, counselors, and clerical and custodial staff, to determine if the same inconsistency was tenable for these populations. If the same inconsistency does exist, the results would suggest that externals may be dissatisfied with joint vocational school organizational life, regardless of the level of leadership structure.

When consideration and locus of control interactive effects were analyzed, the results revealed that internally controlled teachers had greater job satisfaction than externally controlled teachers under a high considerate style of leadership. This finding corroborated the conclusions reported by Runyon (1973), Evans (1974), and Mitchell, Smyser, and Weed (1975). Again, this study found strong support for a considerate style of leader behavior in the vocational school setting and re-emphasized the need for superintendents to demonstrate a high level of competence in human relation skills. Additional research of similar design and purpose is needed to determine if consideration is supported by the other
populations working in joint vocational schools.

Three-Way Interaction. When consideration, initiating structure, and locus of control were crossed, the most interesting implications of the study emerged. The high-high leader paradigm appeared tenable for only the internally controlled vocational teachers. However, the low-low dimension of this paradigm was not supported. Conversely, the high-high paradigm was not supported by externals, although there was support for the low-low dimension of this paradigm.

The conclusion that the low-low dimension for internals was not consistent with the high-high paradigm supported the findings of Runyon (1973). Runyon concluded from his study that internals would be least satisfied under a leader who is low in consideration and high in initiating structure. However, support for the high-high paradigm by internals was inconsistent with Runyon. According to Runyon, one would expect internals to have the highest total job satisfaction under a leader who they perceived to be high in consideration and low in initiating structure.

Evidently, internals in this study were not adversely affected by a leader who demonstrated structure. In fact, if the structure was low, internals tended to have a decrease in their total job satisfaction mean
score. Thus, the need for a superintendent to demonstrate a considerable amount of structure was reiterated by this disordinal interaction between consideration and initiating structure at the level of internals.

The lack of complete support for a high-high paradigm for externals was consistent with the prediction of Runyon (1973). Regardless of the level of consideration, externals were more satisfied under highly directive supervision. As posited by Runyon and corroborated in this study, externals had the lowest job satisfaction under a leader who was perceived to be low on both leadership dimensions. Again, the importance of structure in leadership style was emphasized.

When viewed in total, the conclusions of this study were consistent with the final conclusions made by other researchers (Hunt and Liebscher, 1973; Kerr, Schriesheim, Murphy, and Stogdill, 1974; Larson, Hunt, and Osborn, 1976; Nystrom, 1978; Valenzi and Dessler, 1978; and Ramsden, 1983). These researchers concluded, as did this researcher, that the high-high leadership paradigm was not tenable for all followers in all situations.

Moreover, the results of this study suggested that the locus of control personality dimension was an important factor influencing
vocational teacher job satisfaction. This finding supported the conclusion made by other researchers (Pryer and Distefano, 1971; Runyon, 1973; Evans, 1974; and Mitchell, Smyser, and Weed, 1975) that the locus of control dimension was an important personality factor influencing employee job satisfaction in the formal organization. This implied that joint vocational school superintendents need to know the locus of control of their vocational teachers so that appropriate leader behavior can be demonstrated. For example, the results of this study indicated that a superintendent who was perceived by an internally controlled teacher as being low in consideration and high in initiating structure was not the most optimal leader behavior for these individuals. If a superintendent was not aware that internally controlled teachers had the highest job satisfaction under a leader who was perceived as being high in both consideration and structure, then any attempt to improve school-site leadership by a superintendent who was not perceived as being high on both dimensions may have been problematic.

Furthermore, the results of this study supported the notion of treating the consideration and initiating structure framework in a situational, dynamic mode as Kerr et al. (1974) suggested. Since
superintendent leadership behavior was perceived differently by the vocational teachers, the superintendents, in order to optimize teacher job satisfaction, needed to know how their leader behavior was perceived by these teachers. Once superintendents know how their leadership behavior was perceived by their vocational teachers, superintendents can make appropriate adjustments in their leader behavior, as suggested by the three-way interaction, to optimize the internality and externality personalities of these teachers. The overall implication was that superintendents needed to adjust their leader behavior so that they were perceived by each teacher as having the optimal leadership style; thus, maximizing teacher job satisfaction and enhancing the effectiveness of their schools.

The results of this study did not offer a prescription for leader behavior that would serve as a panacea for ameliorating all the problems inherent in school-site leadership. In the final analysis, the results of the study implied that a superintendent might optimize vocational teacher job satisfaction by investigating these two heuristic findings:

1. Internally controlled vocational teachers have the highest job satisfaction under a leader who they perceive as being high in both consideration and initiating structure.
2. Externally controlled vocational teachers have the highest job satisfaction under a leader who they perceive to be high in initiating structure, regardless of the level of consideration. Although no cause-and-effect conclusions were drawn from the findings, these heuristics should be beneficial to joint vocational school superintendents, and anyone else in a leadership position, who are interested in increasing the job satisfaction of their subordinates so that the effectiveness of their organizations might be enhanced.

**Other Recommendations**

In addition to the recommendations that emerged directly from the implications of this study, other recommendations were offered that were appropriate for present practice and future research.

**Present Practice.** Three additional recommendations for present practice were offered:

1. The data reported in this study should be made available to the 11 superintendents who cooperated in this study. Awareness of these results might stimulate ideas for enhancing school-site leadership and school effectiveness.
2. The data reported in this study should be made available to the Ohio Director of Vocational and Career Education. Knowledge of these results might stimulate state sponsored research of a similar nature throughout the agency.

3. The data should be made available to university professional faculty in Ohio who conduct inservice and preservice vocational education leadership development programs. Given these data and their expertise, present programs could be enhanced. The importance of the locus of control personality dimension in the leader–subordinate relationship needs to receive a renewed interest in the study of leadership. Perhaps psychology courses or administrative science courses that include this concept might be integrated into vocational education leadership development programs. Furthermore, instead of teaching strictly content, perhaps leadership development courses should infuse role playing into their classes that would provide opportunities for immediate feedback and self-reflection on student leadership performance. Role playing might add to classes that are long on theory but short on practice.
Future Research. Five additional recommendations for future research were offered.

1. Similar studies need to be conducted in other regions of Ohio, and in other states, to increase the generalizability of the results.

2. A need exists to conduct studies designed to investigate the relationship of employee demographic variables to the consideration, initiating structure, locus of control, and job satisfaction variables. Knowledge of how these variables are related may enhance the understanding of the leader-follower relationship.

3. There is a need to conduct studies that would predict the impact that each of the demographic and independent variables measured in this study would have on job satisfaction. Multiple regression analysis would provide useful information on how these variables are related.

4. A need exists to conduct studies of similar purpose and design in assorted vocational education delivery systems. A comparison of research results across public and private postsecondary institutions, comprehensive high schools, and other joint
vocational schools would enhance the understanding of the complex relationship of these variables and the generalizability of results.

5. A need exists to conduct case studies designed to obtain qualitative information on the variables investigated in this study. Perhaps interviews with teachers and administrators, observations, and document reviews would enhance the understanding of how these variables function in the joint vocational school setting.
Appendix A

The Twelve Central Ohio Joint Vocational Schools
OHIO JOINT VOCATIONAL SCHOOLS LOCATED WITHIN A 60 MILE RADIUS OF COLUMBUS, OHIO

1. Central Ohio JVS
   Plain City, Ohio

2. Delaware City-County JVS
   Delaware, Ohio

3. Eastland JVS
   Groveport, Ohio

4. Greene County JVS
   Xenia, Ohio

5. Knox County JVS
   Mount Vernon, Ohio

6. Licking County JVS
   Newark, Ohio

7. Ohio Hi-Point JVS
   Bellfontaine, Ohio

8. Pickaway-Ross County JVS*
   Chillicothe, JVS

9. Pike County Area JVS
   Piketon, Ohio

10. Springfield-Clark County JVS
    Springfield, Ohio

11. Tri-County JVS
    Nelsonville, Ohio

12. Tri-Rivers JVS
    Marion, Ohio

*Not included in data analysis
Appendix B

Leader Behavior Description Questionnaire—Form 12
Scale A (Initiating Structure)
Scale B (Consideration)
Scale A*

1. Lets group members know what is expected of them.
2. Encourages the use of uniform procedures.
3. Tries out his/her ideas in the group.
4. Makes his/her attitudes clear to the group.
5. Decides what shall be done and how it shall be done.
6. Assigns group members to particular tasks.
7. Makes sure that his/her part in the group is understood by group members.
8. Schedules the work to be done.
10. Asks that group members follow standards rules and regulations.

*Ten items are scored: A B C D E
   5 4 3 2 1

A=Always; B=Often; C=Occasionally; D=Seldom; E=Never
Scale B*

1. Is friendly and approachable.
2. Does little things to make it pleasant to be a member of the group.
3. Puts suggestions made by the group into the operation.
4. Treats all group members as his/her equals.
5. Gives advanced notice of changes.
6. Keeps to himself/herself.
7. Looks out for the personal welfare of group members.
8. Is willing to make changes.
9. Refuses to explain his/her actions.
10. Acts without consulting the group.

* Items 1, 2, 3, 4, 5, 7, and 8 are scored: A B C D E
   5 4 3 2 1

Items 6, 9, and 10 are scored: A B C D E
1 2 3 4 5

A=Always; B=Often; C=Occasionally; D=Seldom; E=Never
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These consist of pages:

- Appendix C, pages 164-167
- Appendix D, pages 169-171
- Appendix E, pages 176-180

(Part II)
Appendix C

Rotter Internal-External Scale
Appendix D

Job Descriptive Index
Appendix E

The Questionnaire
VOCATIONAL TEACHER PERCEPTIONS OF THEIR
LOCUS OF CONTROL, JOB SATISFACTION, AND SUPERINTENDENT
LEADER BEHAVIOR IN CENTRAL OHIO JOINT VOCATIONAL SCHOOLS

Comprehensive Vocational Education
The Ohio State University
Columbus, Ohio 43210

PLEASE USE THE ENCLOSED ENVELOPE TO
RETURN YOUR COMPLETED QUESTIONNAIRE
PART I - Perceptions of Superintendent Leader Behavior

Purpose

Below is a list of items that may be used to describe the behavior of your superintendent. Each item describes a specific kind of behavior, but does not ask you to judge whether the behavior is desirable or undesirable. Although some items may appear similar, they express differences that are important in the description of leadership. Each item should be considered as a separate description. This is not a test of ability or consistency in making answers. Its only purpose is to make it possible for you to describe, as accurately as you can, the behavior of your superintendent.

Note: The term "group," as employed in the following items, refers to a department, division, or other unit of organization that is supervised by the person being described.

The term "members," refers to all the people in the unit of organization that is supervised by the person being described.

DIRECTIONS:

a. READ each item carefully.
b. THINK about how the leader engages in the behavior described by the item.
c. DECIDE whether he/she (A) always, (B) often, (C) occasionally, (D) seldom, or (E) never acts as described by the item.
d. DRAW A CIRCLE around one of the five letters (ABCDE) following the item to show the answer you have selected.
e. MARK your answers as shown in the examples below.

A = Always  B = Often  C = Occasionally  D = Seldom  E = Never

Example: Often acts as described ................................................................. A B C D E

Example: Never acts as described ................................................................. A B C D E

1. Lets group members know what is expected of them.............................. A B C D E
2. Is friendly and approachable................................................................. A B C D E
3. Encourages the use of uniform procedures.......................................... A B C D E
4. Does little things to make it pleasant to be a member of the group......... A B C D E
5. Tries out his/her ideas in the group...................................................... A B C D E
6. Puts suggestions made by the group into operation................................ A B C D E

Please go to page 3
7. Makes his/her attitudes clear to the group........................................... A B C D E
8. Treats all group members as his/her equals........................................ A B C D E
9. Decides what shall be done and how it shall be done............................ A B C D E
10. Gives advance notice of changes...................................................... A B C D E
11. Assigns group members to particular tasks....................................... A B C D E
12. Keeps to himself/herself........................................................................ A B C D E
13. Makes sure that his/her part in the group is understood by  the group members................................................................. A B C D E
14. Looks out for the personal welfare of group members........................... A B C D E
15. Schedules the work to be done............................................................... A B C D E
16. Is willing to make changes..................................................................... A B C D E
17. Maintains definite standards of performance........................................ A B C D E
18. Refuses to explain his/her actions........................................................ A B C D E
19. Asks that group members follow standard rules and regulations........... A B C D E
20. Acts without consulting the group........................................................ A B C D E

Leader Behavior Description Questionnaire
Form-12
(Consideration and Initiating Structure Scales)

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Please go to page 4
Appendix F

Data Collection Correspondence
Letter to Superintendents
April 8, 1985

Dear School

Effective schools research posits that school-site leadership is pivotal to the school improvement process. Although there have been numerous leadership research studies conducted during the past 50 years, the leadership concept remains elusive and complex. As Superintendent of XYZ, you can assist in a leadership study designed to provide insights to how the leadership phenomena functions in the joint vocational school setting.

Under the direction of Dr. Dewey A. Adams, Chairperson for Comprehensive Vocational Education at the Ohio State University, I plan to conduct a leadership research study in central Ohio joint vocational schools. In brief, this study will test for interactions between vocational teacher perceptions of their locus of control, job satisfaction, and superintendent leadership style. The knowledge learned about the interactive effects of these variables would provide practical information on how the superintendent-vocational teacher relationship can be enhanced.

Your school is one of 12 joint vocational schools to be included in this study. A random sample of your vocational teachers will be sent a questionnaire within two weeks that is designed to measure perceptions of their respective locus of control, job satisfaction, and superintendent leadership style. A copy of the questionnaire is enclosed for your review. Confidentiality and anonymity will be strictly observed. Data will be handled only in the aggregate form. No individuals or schools will be singly identified.

I am asking for your cooperation in this research effort. Dr. Darrell Parks acknowledges the potential usefulness of this study as indicated in the attached letter. I hope that you will concur that this study serves a useful purpose and that you will encourage your vocational teachers who receive the questionnaire to participate in the study.

I would be most happy to answer questions that you might have. Please call me at The National Center for Research in Vocational Education. My telephone number is (614) 486-3655; Ext. 298.

Thank you for your assistance.

Sincerely,

Alan R. Kohen
Doctoral Candidate
Comprehensive Vocational Education

Enclosures
First Mailing
April 15, 1985

Name
School
Address
City, State Zip

Dear Salutation,

I am conducting a leadership research study on central Ohio joint vocational school teachers' perceptions of their respective locus of control, job satisfaction, and superintendent leadership style. The study is designed to provide insights to how the leadership phenomenon functions in vocational schools. The knowledge learned from this study will provide practical information on how the joint vocational school superintendent-vocational teacher relationship can be enhanced.

You are one of 210 vocational teachers randomly selected to complete the enclosed questionnaire. While your participation in this study is voluntary, your participation is vital to the completeness of this study. The questionnaire was designed to take about 15 minutes of your time. Please complete and return the questionnaire in the stamped, self-addressed envelope that is enclosed for your convenience. You may be assured of complete confidentiality. The questionnaire has been coded for follow-up purposes only. Data will be handled only in the aggregate form. No individuals or schools will be singly identified.

I would appreciate it if you would return your completed questionnaire by April 30, 1985. I have enclosed a pencil as a small token of my appreciation to you for your time and professional assistance.

Sincerely,

Alan R. Kohan
Doctoral Candidate
Comprehensive Vocational Education

Enclosures
Letter Reminder
April 22, 1985

Dear [Name],

School:
Address:
City, State Zip:

Last week a questionnaire seeking your perceptions of your locus of control, job satisfaction, and superintendent leader behavior (style) was mailed to you. Your name was drawn in a random sample of central Ohio joint vocational school vocational teachers.

If you have completed the questionnaire and returned it to me, please accept my sincere thanks. If not, please do so today. Since the questionnaire was sent to a random sample, it is important to the success of this study that each recipient complete and return their respective questionnaire.

If by some chance you did not receive the questionnaire, or it got misplaced, please call me tonight, collect at (614) 457-7443, and I will mail another one to you immediately. I look forward to hearing from you.

Sincerely,

Alan R. Kohan
Doctoral Candidate
Comprehensive Vocational Education
Last Mailing
May 7, 1985

[Name]
[School]
[Address]
[City, State Zip]

Dear [Salutation],

About three weeks ago I wrote to you seeking your perceptions of your locus of control, job satisfaction, and superintendent's leadership style. As of today, I have not yet received your completed questionnaire.

I am writing to you again because of the significance each questionnaire has to the usefulness of this study. Your name was drawn through a random sample process in which every vocational teacher in central Ohio joint vocational schools had an equal chance of being selected. If the results of this study are to be truly representative of the perceptions of all central Ohio joint vocational school vocational teachers, it is important that each person in the sample return their questionnaire.

In the event that your questionnaire has been misplaced, a replacement and a self-addressed, stamped envelope are enclosed. Acknowledging your busy schedule, the questionnaire was designed to take about 15 minutes of your time. Although your participation in this study is voluntary, I hope that you will decide to participate and that you will return your questionnaire to me by May 22, 1985.

Your contribution to the success of this study will be appreciated greatly.

Most sincerely,

[Name]
[Doctoral Candidate, Comprehensive Vocational Education]

Enclosures
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