INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations which may appear on this reproduction.

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

2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.

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

4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.
Diehn, Debbera A.

CORRELATION OF LEADERSHIP EFFECTIVENESS OF STATE DIRECTORS OF VOCATIONAL EDUCATION: CONGRUENCY BETWEEN DIRECTORS' LEADERSHIP STYLE AND HEAD STATE SUPERVISORS' TASK-RELEVANT ABILITY

The Ohio State University

University Microfilms International

300 N. Zeeb Road, Ann Arbor, MI 48106
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages
2. Colored illustrations, paper or print
3. Photographs with dark background
4. Illustrations are poor copy
5. Pages with black marks, not original copy ✓
6. Print shows through as there is text on both sides of page
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements
9. Tightly bound copy with print lost in spine
10. Computer printout pages with indistinct print
11. Page(s) lacking when material received, and not available from school or author.
12. Page(s) seem to be missing in numbering only as text follows.
13. Two pages numbered. Text follows.
14. Curling and wrinkled pages
15. Other

University Microfilms International
CORRELATION OF LEADERSHIP EFFECTIVENESS OF STATE DIRECTORS OF VOCATIONAL EDUCATION WITH CONGRUENCY BETWEEN DIRECTORS' LEADERSHIP STYLE AND HEAD STATE SUPERVISORS' TASK-RELEVANT ABILITY

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

By

Debbera A. Diehn, B. Ed., M. A.

* * * * * 

The Ohio State University

1982

Reading Committee: 

Dr. Dewey A. Adams
Dr. Robert E. Taylor
Dr. Daniel B. Dunham

Approved By:

Dr. Dewey A. Adams
Adviser
Comprehensive Vocational Education
For Richard J. Diehn and Dolores L. Diehn
ACKNOWLEDGEMENTS

While this dissertation bears the name of a single author and represents both the conclusion of a formalized doctoral experience and the end result of a research effort, it is the direct and indirect product of many. Thus, it is impossible to acknowledge here all those who have contributed to the completion of this work. Nonetheless, there are individuals who have played major roles for whom recognition is due.

To my major advisor, Professor Dewey A. Adams, I extend my sincere appreciation for his devotion to his students, enrichment of the profession and dedication to the goal of excellence.

To Dr. Robert E. Taylor and Dr. Daniel B. Dunham, for serving on my doctoral research committee, providing valuable ideas and leadership direction, my thanks.

For their statistical and research expertise, I extend my appreciation and thanks to Dr. Frederick S. Ruland and Dr. Paul B. Campbell.

To Dr. Philip M. Podsakoff for his invaluable guidance in the development of my leadership thought.

To Dr. Peter G. Haines and Dr. Lorraine Furtado, my appreciation for their editorial review of this document.
Especially to Richard J. Diehn and Dolores L. Diehn, my parents, for their love, encouragement and support, my sincere thanks and appreciation.

To my fellow graduate students and special friends, my thanks.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>Graduated, E. L. Bowsher High School, Toledo, Ohio</td>
</tr>
<tr>
<td>1976</td>
<td>B. Ed., University of Toledo, Toledo, Ohio</td>
</tr>
<tr>
<td>1977-79</td>
<td>Assistant Professor, Pasco-Hernando Community College, Dade City, Florida</td>
</tr>
<tr>
<td>1979</td>
<td>Assistant Professor, Pasco-Hernando Community College, New Port Richey, Florida</td>
</tr>
<tr>
<td>1979-80</td>
<td>Assistant Professor, Hillsborough Community College, Tampa, Florida</td>
</tr>
<tr>
<td>1976-80</td>
<td>Instructor, Land O' Lakes High School, Land O' Lakes Florida</td>
</tr>
<tr>
<td>1980</td>
<td>M. A., University of South Florida, Tampa, Florida</td>
</tr>
<tr>
<td>1980-81</td>
<td>Graduate Fellow, Vocational Education Leadership Development Award, United States Office of Education, Department of Vocational-Technical Education, The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1981</td>
<td>Graduate Research Associate, The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio</td>
</tr>
</tbody>
</table>
1982 ............................. Graduate Administrative Associate, College of Agriculture and Home Economics, The Comprehensive Vocational Education Program, The Ohio State University, Columbus, Ohio

PUBLICATIONS


FIELDS OF STUDY

Major Fields: Administration in Vocational Education/ Organizational Behavior

Administration in Vocational Education

Administration and Supervision.
Professor Dewey Adams.

Executives-in-Residence.
Professor Daniel B. Dunham.

Principles of Vocational Education.
Professor Dewey Adams.

Evolution of Vocational Education.
Professor A. J. Miller.

Organizational Behavior

Management of Human Resources.
Professor Orlando Behling.
Administrative Behavior.
Professor Philip Podsakoff.

Development and Management of New Enterprise.
Professor Albert Shapero.

Organizational Behavior Theory.
Professor Philip Podsakoff.

Formal Organizational Theory.
Professor William Todor.

Advanced Formal Organizational Theory.
Professor Nan Weiner.

Minor Field: Educational Administration

Human Relations in Educational Administration.
Professor Virgil Blanke.

Administration of Higher Education.
Professor George Ecker.

Educational Organizational Theory.
Professor George Ecker.

Legal Aspects of Higher Education Administration.
Professor William Staub.

Community College Administration.
Professor William Moore.
TABLE OF CONTENTS

DEDICATION .................................................. ii
ACKNOWLEDGEMENTS ........................................ iii
VITA ...................................................... v
LIST OF TABLES ............................................ xii
LIST OF FIGURES .......................................... xvi

Chapter

I. INTRODUCTION .......................................... 1

  Background Information .................................. 2
  Statement of the Problem ................................ 6
  Purpose of the Study .................................... 7
  Research Hypotheses .................................... 7
    Research Hypotheses: Subset One ........................ 8
    Research Hypotheses: Subset Two ....................... 9
    Research Hypotheses: Subset Three ..................... 9
  Importance of the Study ................................ 11
  Research Perspective ................................... 12
  Vocational Education Perspective ....................... 14
  Limitations of the Study ................................ 19
  Assumptions of the Study ................................ 20
  Key Definitions .......................................... 20
  Chapter Summary and Organization ...................... 25
    of the Remainder of the Chapter

II. REVIEW OF RELATED LITERATURE AND THEORETICAL FRAMEWORK .. 27

  Evolution of Leadership Theories ....................... 28
  Trait Approaches ...................................... 32
  Behavioral Approaches ................................ 35
    The Ohio State Leadership Studies .................... 35
    The University of Michigan Studies ................... 38
  Situational Approaches ................................ 39
    Fiedler's Contingency Theory ........................ 42
    House's Path-Goal Theory ............................. 45
    Hersey & Blanchard's Situational Leadership Theory
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLT Research Issues</td>
<td>55</td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>60</td>
</tr>
<tr>
<td>Subordinate Performance Measures</td>
<td>60</td>
</tr>
<tr>
<td>Leadership Effectiveness Measures</td>
<td>65</td>
</tr>
<tr>
<td>Summary and Conclusions</td>
<td>70</td>
</tr>
<tr>
<td>III. METHODOLOGY OF THE STUDY</td>
<td>74</td>
</tr>
<tr>
<td>Description of the Study</td>
<td>74</td>
</tr>
<tr>
<td>Research Design</td>
<td>75</td>
</tr>
<tr>
<td>Populations</td>
<td>79</td>
</tr>
<tr>
<td>Variables</td>
<td>81</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>81</td>
</tr>
<tr>
<td>Panel of Experts</td>
<td>82</td>
</tr>
<tr>
<td>Alternative Leadership Styles Instrument</td>
<td>82</td>
</tr>
<tr>
<td>Ability to Perform Instrument</td>
<td>83</td>
</tr>
<tr>
<td>Leadership Effectiveness Appraisal</td>
<td>84</td>
</tr>
<tr>
<td>Instrument Data Collection Procedures</td>
<td>85</td>
</tr>
<tr>
<td>Analysis of Data</td>
<td>85</td>
</tr>
<tr>
<td>Two-Way Analysis of Variance</td>
<td>86</td>
</tr>
<tr>
<td>Frequency Analysis</td>
<td>86</td>
</tr>
<tr>
<td>Crosstabulations</td>
<td>86</td>
</tr>
<tr>
<td>Means Analysis</td>
<td>87</td>
</tr>
<tr>
<td>Summary</td>
<td>87</td>
</tr>
<tr>
<td>IV. ANALYSIS OF DATA</td>
<td>88</td>
</tr>
<tr>
<td>Introduction</td>
<td>88</td>
</tr>
<tr>
<td>Characteristics of Respondents</td>
<td>89</td>
</tr>
<tr>
<td>Summary of Respondents by Current Position</td>
<td>82</td>
</tr>
<tr>
<td>Summary of Respondents by Age</td>
<td>92</td>
</tr>
<tr>
<td>Classification Summary of Respondents by Gender</td>
<td>93</td>
</tr>
<tr>
<td>Summary of Respondents by Highest</td>
<td>94</td>
</tr>
<tr>
<td>Educational Level Achieved Summary of Respondents by Degree Major</td>
<td>95</td>
</tr>
<tr>
<td>Summary of Respondents by Number of Years of Work Experience in Vocational Education</td>
<td>97</td>
</tr>
<tr>
<td>Summary of Respondents by Number of Years in Present Position</td>
<td>98</td>
</tr>
<tr>
<td>Summary of Respondents by Service Area in Which Educated or Had Primary Experience</td>
<td>99</td>
</tr>
<tr>
<td>Summary of Respondents by Number of Years of Work Experience in Service Area</td>
<td>100</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Summary of Respondents by Model that Most Exactly Describes State Vocational Education Organizational Structure</td>
<td>101</td>
</tr>
<tr>
<td>Leadership Effectiveness</td>
<td>103</td>
</tr>
<tr>
<td>Leadership Style (Task Behavior) and Task-Relevant Ability</td>
<td>103</td>
</tr>
<tr>
<td>Leadership Style (Relationship Behavior) and Task-Relevant Ability</td>
<td>114</td>
</tr>
<tr>
<td>Hypotheses Testing</td>
<td>126</td>
</tr>
<tr>
<td>Leadership Style (Task Behavior)</td>
<td>126</td>
</tr>
<tr>
<td>Leadership Style (Relationship Behavior)</td>
<td>127</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>129</td>
</tr>
<tr>
<td>Leadership Style (Task Behavior) and Task-Relevant Ability Interaction</td>
<td>131</td>
</tr>
<tr>
<td>Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction</td>
<td>132</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>134</td>
</tr>
<tr>
<td>V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</td>
<td>137</td>
</tr>
<tr>
<td>Summary</td>
<td>137</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>137</td>
</tr>
<tr>
<td>Hypotheses of the Study</td>
<td>138</td>
</tr>
<tr>
<td>Leadership Style (Task Behavior)</td>
<td>138</td>
</tr>
<tr>
<td>Leadership Style (Relationship Behavior)</td>
<td>138</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>138</td>
</tr>
<tr>
<td>Leadership Style (Task Behavior) and Task-Relevant Ability Interaction</td>
<td>139</td>
</tr>
<tr>
<td>Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction</td>
<td>139</td>
</tr>
<tr>
<td>Method of Investigation</td>
<td>140</td>
</tr>
<tr>
<td>Populations</td>
<td>140</td>
</tr>
<tr>
<td>Design</td>
<td>140</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>140</td>
</tr>
<tr>
<td>Data Collection Procedures</td>
<td>141</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>142</td>
</tr>
<tr>
<td>Major Research Findings—Characteristics of Respondents</td>
<td>142</td>
</tr>
<tr>
<td>Current Position</td>
<td>142</td>
</tr>
<tr>
<td>Age Classification</td>
<td>142</td>
</tr>
<tr>
<td>Gender</td>
<td>142</td>
</tr>
<tr>
<td>Highest Educational Level Achieved</td>
<td>143</td>
</tr>
<tr>
<td>Degree Major</td>
<td>143</td>
</tr>
<tr>
<td>Number of Years of Work Experience in Vocational Education</td>
<td>143</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Number of Years in Present Position</td>
<td>143</td>
</tr>
<tr>
<td>Service Area in Which Educated or Had Primary Experience</td>
<td>144</td>
</tr>
<tr>
<td>Number of Years of Work Experience in Service Area</td>
<td>144</td>
</tr>
<tr>
<td>Model that Most Exactly Describes Vocational Education Organizational Structure</td>
<td>144</td>
</tr>
<tr>
<td>Major Research Findings—Leadership Effectiveness and Hypotheses Testing</td>
<td>145</td>
</tr>
<tr>
<td>Conclusions</td>
<td>148</td>
</tr>
<tr>
<td>Recommendations</td>
<td>149</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>152</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>173</td>
</tr>
<tr>
<td>A. Panel of Experts</td>
<td>173</td>
</tr>
<tr>
<td>B. Cover Letter for Panel of Experts</td>
<td>176</td>
</tr>
<tr>
<td>C. Initial Correspondence Cover Letter for State Directors of Vocational Education</td>
<td>178</td>
</tr>
<tr>
<td>D. Data Sheet for State Directors</td>
<td>180</td>
</tr>
<tr>
<td>E. Models Illustrating the Most Common Organizational Patterns Used by State Vocational Education Agencies in The United States</td>
<td>183</td>
</tr>
<tr>
<td>F. Ability to Perform Appraisal Instrument</td>
<td>185</td>
</tr>
<tr>
<td>G. Initial Correspondence Cover Letter for Head State Supervisors</td>
<td>188</td>
</tr>
<tr>
<td>H. Data Sheet for Head State Supervisors</td>
<td>190</td>
</tr>
<tr>
<td>I. Alternative Leadership Styles Instrument</td>
<td>193</td>
</tr>
<tr>
<td>J. Leadership Effectiveness Appraisal Instrument</td>
<td>196</td>
</tr>
<tr>
<td>K. First Follow-Up Letter</td>
<td>199</td>
</tr>
<tr>
<td>L. Final Follow-Up Letter</td>
<td>201</td>
</tr>
<tr>
<td>M. Summary of Participating State Vocational Education Administrators</td>
<td>203</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table | Page
---|---
1. Questionnaire Mailing and Response Activity | 89
2. Percent of Usable Responses to the Vocational Education Administrators Leadership Survey by Respondent Groups | 90
3. Questionnaire Response Rate | 91
4. Summary of Respondents by Current Position | 92
5. Summary of Respondents by Age Classification | 93
6. Summary of Respondents by Gender | 94
7. Summary of Respondents by Highest Educational Level Achieved | 95
8. Summary of Respondents by Degree Major | 96
9. Summary of Respondents by Number of Years of Work Experience in Vocational Education | 97
10. Summary of Respondents by Number of Years in Present Position | 99
11. Summary of Respondents by Service Area in Which Educated or Had Primary Experience | 100
12. Summary of Respondents by Number of Years of Work Experience in Service Area | 101
13. Summary of Respondents by Model that Most Exactly Describes State Vocational Education Organizational Structure | 102
<table>
<thead>
<tr>
<th>Table</th>
<th>Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Agricultural Education for Leadership Style and Task-Relevant Ability Combinations ............................ 105</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.</td>
<td>Analysis of Variance: Scores of Head State Supervisors of Trade &amp; Industrial Education for Leadership Effectiveness ................................................................. 112</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>23. <strong>Leadership Style (Relationship Behavior) and Task-Relevant Ability</strong>&lt;br&gt;Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Trade &amp; Industrial Education for Leadership Style and Task-Relevant Ability Combinations</td>
<td>113</td>
</tr>
</tbody>
</table>
## LIST OF TABLES (Continued)

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supervisors of Home Economics Education for Leadership Style and Task-Relevant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ability Combinations</td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>Analysis of Variance: Scores of Head State Supervisors of Trade &amp; Industrial</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>Education for Leadership Effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supervisors of Trade &amp; Industrial Education for Leadership Style and Task-RelevantABILITY Combinations</td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>Leadership Style (Task Behavior) Summary</td>
<td>127</td>
</tr>
<tr>
<td>35.</td>
<td>Leadership Style (Relationship Behavior) Summary</td>
<td>128</td>
</tr>
<tr>
<td>36.</td>
<td>Leadership Style (Task Behavior) and Task-Relevant Ability Summary</td>
<td>130</td>
</tr>
<tr>
<td>37.</td>
<td>Leadership Style (Relationship Behavior) and Task-Relevant Ability Summary</td>
<td>130</td>
</tr>
<tr>
<td>38.</td>
<td>Leadership Style (Task Behavior) and Task-Relevant Ability Interaction Summary</td>
<td>132</td>
</tr>
<tr>
<td>39.</td>
<td>Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction</td>
<td>133</td>
</tr>
<tr>
<td>Figure</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>1. An Integrative Model of the Leadership Situation</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2. Hersey &amp; Blanchard's SLT Model</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>3. Evolution of Leadership Theories and Models of Leadership</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>4. Three Major Approaches to Leadership</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>5. The Development of Leadership Thought</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>6. Summary of Behavioral Approaches to Leadership</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>7. Fiedler's Contingency Model of Leadership</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>9. Situational Leadership Theory Model</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>10. Tri-Dimensional Leader Effectiveness Model</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>11. Interaction of Leadership Style and Task-Relevant Ability</td>
<td>125</td>
<td></td>
</tr>
</tbody>
</table>
Leadership in vocational education is a foremost need in the profession today. Especially is needed an understanding regarding the effectiveness of leadership. "Vocational education needs leaders...we desperately need leadership in this profession. All too often...we are simply followers content with the status quo." Such is the opinion of leader Charles Hopkins (1982), American Vocational Association President-Elect.

The current journalists in management science and education dwell upon the need for leaders; for the development of a coherent operational theory of administration (Morris, 1978). Accommodating this need, the research focus has shifted at various times to highlight: the task, the formal organization, the work group, and/or the leader (Halpin, 1966). In educational administration environments, a current focus can be characterized as being an examination of the "underlying behavior of an administrator and less of a concern with the technical administrative procedures" (Bondy, 1972, p. 1).
Background Information

General research focus for the past decade has been on identifying the relationships among the various interpersonal components of the administrative environment. One of the most intently studied and still pervasive variables in this topical arena of research is leadership. Although some have disputed the importance of leadership as a factor influencing the effectiveness of organizations (Dubin, 1965), the vast sums of money spent annually on leadership training indicate that both academicians and practicing managers consider good leadership important to organizational success.

The intensity and length of research bearing on this leadership phenomenon also bears witness to the importance with which the study of the subject is usually regarded (Behling & Schriesheim, 1976). Although leadership processes may directly account for only 10 to 15 percent of the variability in unit performance (Behling & Schriesheim, 1976), leadership still appears to be considered important enough by practitioners and academicians alike not to be ignored (Campbell, 1977).

Authors of one of the recent publications in the field of vocational education management related:
The quality of education is only as good as those who provide educational leadership. This is true for education in general as well as occupational education (vocational education) in particular. It is our belief that persons who intend to provide high-quality leadership for occupational education (vocational education) must comprehend the scope of this important field and be able to deal with its complexities (Finch & McGough, 1982, p. xiii).

A significant publication by one academic unit at The Ohio State University succinctly noted this need:

The quality of vocational education depends on the quality of its leadership (Academic Faculty for Vocational-Technical Education, The Ohio State University, 1977).

Thus, investigation of this phenomena within the vocational education profession seems rational. Research regarding leadership components of state-level vocational education administrators is a beginning.

Leadership behavior, leadership effectiveness, leadership styles and the complex contingency networks that impact on each, have all been investigated by researchers from many diverse disciplines. Schriesheim (1978) reported that in the past seventy years more than 3,000 leadership studies have been conducted on the dynamics of leadership. As the model in Figure 1 indicates, the situation, the subordinate and the leader all have an impact on performance.
Figure 1

An Integrative Model of the Leadership Situation

State Directors and Head State Supervisors perform the major functions of planning, organizing and controlling. Organizational effectiveness depends substantially upon the leader's ability to administer these major functions. Likert (1967) stressed the importance of effective management in formal organizations:

> Every aspect of a firm's activities is determined by the competence, motivation and general effectiveness of its human organization. Of all the tasks of management, managing the human component is the central and most important task, because all else depends upon how well it is done (p. 1).

Explicit in Likert's writing is the leadership aspect of organizational governance; specifically, the relationship of situational variables and leadership of suborganizational units in achieving institutional effectiveness.

The importance of examining the relationship between situational factors in specific organizational settings and managerial leadership is supported further by Halpin (1955):

> To know that different institutional settings foster different leader styles is important, but we also need to know that specific factors in each setting are associated with these differences. It therefore would be preferable to study various specific conditions of group operation that are imposed upon the leader and his group (p. 298).

Halpin, as Likert, assumed a situationalist approach to the examination of leadership within formal organizations. Leadership within the formal organization of state-level administration of vocational education needs attention. Specifically, a situationalist approach for
examining leadership variables of State Directors and Head State Supervisors was explored in this research.

Statement of the Problem

The current problems of leadership research can be roughly divided into three major questions. These are: 1) How does one become a leader?; 2) How do leaders behave?; and, 3) What makes a leader effective? Because the third question is most important for present day management of organizations, this study tested one of the contemporary contingency theories that has shown potential for predicting leadership effectiveness.

The Situational Leadership Theory (SLT) (Hersey & Blanchard, 1977) appears to be effective in an administrative setting. Other studies (Beck, 1978; Morris, 1978; Vos Strache, 1978; Clark, 1981) have reported at least partial support for SLT in other environments. This study focused on the leadership effectiveness of State Directors of Vocational Education in the United States. Financial exigency, disparate task-relevant ability levels and staff turnover among administrators in these departments provided adequate reasons for the investigation of leadership with this environmental population utilizing the SLT theory.
**Purpose of the Study**

The purpose of this study was to determine whether the Head State Supervisors' perceptions of leadership effectiveness of State Directors of Vocational Education co-varied with the congruence of State Directors' leadership style and Head State Supervisors' task-relevant ability. In effect, this was an investigation of the adequacy of the Situational Leadership Theory to describe and predict the behavior of selected state-level vocational education administrators.

**Research Hypotheses**

The following research hypotheses based on the expected main effect were formulated to fulfill the purpose of the study. These ten hypotheses were subdivided into three subsets of hypotheses that related to the three variables of the study. All hypotheses are stated in the null form. The first two subsets of hypotheses related to the two independent variables of the study which are leadership style and task-relevant ability. The third subset of hypotheses are based on the possible interaction of the two independent variables of the study.
Research Hypotheses: Subset One. The first subset of research hypotheses related to the independent variable: leadership style (task behavior and relationship behavior). These hypotheses are based on the possible main effect of leadership style on leadership effectiveness.

Leadership Style (Task Behavior)

1. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications of task behavior (S3, S4).

2. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications of task behavior (S1, S2).

Leadership Style (Relationship Behavior)

3. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications of relationship behavior (S1, S4).

4. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or Low Relationship/Low Task (S4) and Directors of all other classifications of relationship behavior (S2, S3).
Research Hypotheses: Subset Two. This second subset of research hypotheses also related specifically to an independent variable of this study. These hypotheses were based on the possible main effect of task-relevant ability on leadership effectiveness.

**Task-Relevant Ability**

5. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors classified as High Task-Relevant Ability (A4) and Directors of all other classifications of task-relevant ability (A2, A3).

6. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) and Directors of all other classifications of task-relevant ability (A4).

Research Hypotheses: Subset Three. The SLT model predicts a curvilinear relationship between leadership style and task-relevant ability in relation to leadership effectiveness. Therefore, a third purpose of this study was to test the interaction effect of these two independent variables. This third subset of research hypotheses was based on the possible interaction effect of leadership style and task relevant-ability. These research hypotheses related directly to the four quadrants of the SLT model. Figure 2 displays Hersey & Blanchard's SLT Model.
Figure 2

SITUATIONAL LEADERSHIP

Leadership Style (Task Behavior) and Task-Relevant Ability Interaction

7. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications (S3, S4).

8. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications (S1, S2).

Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction

9. There is no difference in the leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications (S1, S4).

10. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Task/Low Relationship (S1) or Low Relationship/Low Task (S4) Directors of all other classifications (S2, S3).

Importance of the Study

Two general perspectives focusing on the importance of this study exist. These include a research perspective and a vocational education perspective.
Research Perspective. Research tends to support the thesis that there is no "best" style of leadership which is most effective in all situations (Fiedler & Chemers, 1974). Hersey & Blanchard have devised a conceptual model to assist in the determination of an effective leadership style for certain known conditions in a specific environment.

However, even they admit that:

The model attempts to integrate the concept of leader style with situational demands of a specific environment, based on empirical studies showing there is no normative (best) style of leadership (Hersey & Blanchard, 1972).

Many researchers (Bowers & Seashore, 1966; Katz & Kahn, 1966; Korman, 1966; Stogdill, 1967; Cartwright & Zander, 1968) agreed that meaningful research on leadership effectiveness needs to specify the conditions (e.g., appropriate moderator variables) under which a relationship between leader behavior and performance holds. This study is important because it focused these specific conditions.

The study is important also in that the methodology treated the individual leader/subordinate relationship in its unique dyadic form. Researchers have recognized that studies based on group-performance measures might not bear the same relationship to leader behavior as would individual performance measures (Fleishman, 1973). Sashkin & Garland succinctly illustrated the importance of a reconceptualization of the leader/subordinate relationship:
The superior/subordinate dyad is the basic unit of analysis in the study of leader behavior. The primary notion is that leaders do (and should) "tailor" their behaviors to best "fit" specific subordinates. Thus the nature of the relationships between the leader and each of the subordinates may vary widely. This would be desirable since different subordinates have different task needs, etc. Thus, effective leaders are seen as those who vary their behavior pattern depending on the superior/subordinate dyad under examination (1979, p. 21).

Another possible benefit of this study is the potential it holds for practical purposes for practice of educational management. Campbell (1977) observed that:

...while academic/researcher types can enjoy the luxury of being interested in leadership or repelled by it as the fashion dictates, real people must deal with it constantly (p. 222).

Sashkin & Garland (1979) suggested there has been a serious failure to link research knowledge in the field of leadership to organizational applications. Therefore, the contemporary ascertain that leadership "all depends on the situation" is not very helpful to the practicing vocational education administrator who may be personally interested in how he/she can find some practical value in theory. As the SLT model was essentially developed for training and development purposes, its applicability is considered to be a definite plus in comparison to other leadership theories.

A final research perspective contributing to the importance of this study deals with the previous research
utilizing the SLT model. Recent investigations in education showed conflicting results with respect to support for the major propositions of the theory (Smith, 1975; Moore, 1975; Beck, 1978; Morris, 1978; Trease, 1980; Clark, 1981). Close scrutiny of these studies reveal that problems in research methodology influenced the results, particularly the operationalization of the variable "task-relevant maturity."

The current study is important because of a different operationalization of this variable (see Chapter II) and the restructuring that is proposed due to the methodological weaknesses revealed in prior research (see Chapter III).

A final research perspective contributing to this study's importance is the methodological problem of categories of the SLT model. Usable data generated via this study was not adequate to occupy all cells of the SLT model in regard to the components leadership style and task-relevant ability. Therefore, data were aggregated into fewer cells to accommodate adequately and statistically the testing of this theory (see Chapter II).

**Vocational Education Perspective.** Many factors have created the need for this study of leadership effectiveness from a vocational education perspective. The determination of leadership effectiveness for State Directors of Vocational Education focusing on the congruence of Directors' leadership style and Subordinates' task-relevant ability utilizing the SLT is important.
There is a lack of pertinent, up-to-date information that accurately portrays the leadership effectiveness for State Directors of Vocational Education as perceived by Subordinates. Nor does information exist regarding Directors' perception of Subordinates' ability or Subordinates' perception of Directors' leadership style. A review of the literature has revealed that no studies focusing on this phenomena exist.

The need of professional development has been advocated by many (Adams, 1976; Newton, 1980). But the provision to relate leadership styles and leadership effectiveness to professional development effectively has not been documented. Demands of more effective leadership have been made from both within and from outside the profession.

Dunham (1980) alluded to the national purpose, management responsibility and leadership potential for vocational education:

It is the rational purpose of vocational education to serve the needs of citizens of the U. S. through education and training in such ways as to insure that each person is provided full opportunity at whatever age or stage of career to contribute as an individual to the economical and social strength of the nation, and to develop the personal and work skills necessary to participate fully in a rewarding adult life (p. 3).

Greenwood (1981) stated that:

Professional fields such as vocational education must provide sponsorship and leadership in directing comprehension of the past for the institutions of work, work history, ideology of work, education for work,
work benefits and value perspectives about work. This is our special mission today as it has been in the past and as it will continue to be in the future (p. 72).

Ruff & Shylo (1981) agreed that:

Because of the convergence of a set of powerful social, economical and political trends, the 1980s appear to represent such a unique period in our (vocational education) history—a decade that will require and create new leadership, new alliances and the fundamental reformulation of ideas (p. 109).

Others experienced in the profession have cited this importance of leadership components:

The quality of education is only as good as those who provide educational leadership. This is true for education in general as well as occupational education (vocational education) in particular... At no time in our history has there been a greater demand for educational leadership. Changing philosophies, legislative mandates, and technological developments are among the many factors that have reinforced a need for competent persons to guide and direct educational programs. As the nation's largest employer, American education provides jobs for approximately one-seventh of the nation's workforce. The magnitude of such an operation dictates that persons be adequately prepared to provide leadership for programs in all educational areas (Finch & McGough, 1982, pp. xiii-3).

Also, in a research and development report from one of the annual National Leadership Development Seminars for State Directors of Vocational Education, this leadership need is succinctly noted:

Vocational education... requires dynamic and viable leadership. To provide this, leaders require futuristic preparation and continuous upgrading. Present programs for the preparation and upgrading of leaders appear to be inadequate in view of projected needs. A primary reason for this has been the lack of a dynamic knowledge base regarding the roles and
functions of leaders, competencies required for performance and tools and materials needed to effectively perform position requirements (Koble, 1972, pp. 1-2).

Chapman summarized the views of many when he stated:

Vocational education is in a perennial crisis of leadership...the failure of the profession to identify and train potential leaders at all program levels. The need for a more conscious effort to develop leadership skills for those in vocational education has been widely voiced (Wenrich, 1966; Advisory Council on Vocational Education, 1968; Connors, 1972)...very little research has examined the competencies actually associated with leadership behavior (1980, p. 496).

Koehn, a past president of the National Association of State Boards of Education, commented:

There is a definite need for the development of strong leadership at all operational levels--since education is initially a state responsibility--especially at the state level. The state must take steps to furnish effective leadership that will encourage programs required to meet the needs, first at the local level, than at the state and national levels (1970).

The National Center for Research in Vocational Education at The Ohio State University has had a long interest in and a deep commitment to leadership development in State Divisions of Vocational Education. Taylor, Executive Director of the National Center, calls state vocational education leadership development "one of the continuing concerns of the Center" (1967).

In 1963, the President's Panel studying vocational education prior to the passage of the Vocational Education Act of 1963, made the following recommendation relative to training for leadership:
The leadership of vocational education will determine both its quality and effectiveness. In a rapidly changing world, this leadership must be dynamic and forward looking, able to adapt its thinking to the constantly changing situation which it faces. Capable leadership is in short supply, especially in the new fields.

Proposed expansion of vocational education programs intensifies the need for leadership development. Special attention should be given to the development of highly-qualified professional personnel in the many facets of vocational education. The task is large and will require measures considerably beyond the facilities now provided. Professional staffs at universities that provide leadership training will have to be enlarged. Recruitment of candidates for leadership training will have to be expanded and incentives provided in the form of fellowships or other stipends to make it possible for acceptable candidates to undertake the training needed. In-service opportunities for leadership growth should be made available (United States Department of Health, Education and Welfare, 1964, p. 161).

This study is intended to assist in answering those demands and help in designing contemporary preservice, inservice and graduate education programs for vocational education personnel.

As vocational education leaders participate in this study, these leaders better understand the relationship of adapting their personal leadership style to the situation and considering subordinate ability. This knowledge will, hopefully, help these vocational education leaders as they work in administrative environments.

As a result of this investigation, data regarding leadership effectiveness, leadership styles and task-relevant ability will be available. Such data could be
helpful to vocational personnel at the collegiate, local, state and national levels as they assist individuals with educational or industrial backgrounds who desire to enter the administrative setting as vocational education leaders.

Finally, it is believed that results of this study can provide baseline data for future research regarding leadership effectiveness and leadership styles of State Directors of Vocational Education and ability appraisals of Head State Supervisors of the five traditional service areas in the country. The determination of leadership effectiveness of State Directors of Vocational Education focusing on the congruence of Directors' leadership style and Subordinates' task-relevant ability utilizing the SLT model is important. In that research indicates that successful leaders are those who adapt their behavior to meet the demands of their own situations, it is important for vocational education leaders to adapt their behavior to their situations. Utilizing the components of the SLT, this condition of successful leaders who match behavior with situation occurs.

Limitations of the Study

1. The study was limited to six vocational education respondent groups (populations):
   a) State Directors of Vocational Education of the 50 states of the United States, and
   b) Head State Supervisors of Agricultural

2. The study was limited to respondent perceptions of leadership effectiveness, leadership style and task-relevant ability.

3. The investigation was primarily exploratory. Ends sought through this investigation were to gain new insights in leadership components of vocational education leaders and to formulate more specific research hypotheses for further investigation. Therefore, generalization about cause-and-effect relationships is not tenable in this investigation.

Assumptions of the Study

1. The respondents were sufficiently interested in participating in this investigation that they exhibited responsible and accurate responses.

2. The listing of State Directors of Vocational Education and Head State Supervisors of the five traditional service areas was accurate, current and complete.

Key Definitions

The following definitions provide a common basis for understanding certain terminology used in this study.

Leadership. A first idea that must be clear is that of leadership itself. Stogdill (1974, pp. 7-16) listed eleven categories of definitions of leadership: a focus of group processes, personality and its effects, the art of inducing
compliance, the exercise of influence, act or behavior, a form of persuasion, a power relation, an instrument of goal achievement, an effect of interaction, a differentiated role and the initiation of structure. Leadership research and theory currently concentrate on "leadership as exercise of influence." Thus, leadership as used in this research was defined as the process of influencing the behavior of members of an organized group in efforts toward leader goal achievement and maintenance of the group as an efficient subset of the larger organization.

Situational Leadership Theory. SLT is based on the interplay among (1) the amount of leader guidance and direction (task behavior), (2) the amount of socio-emotional support provided by the leader (relationship behavior), and (3) the readiness ("maturity" or "ability") level that subordinates exhibit in performing a specific task, function or objective.

Leadership Style. Leadership style refers to:

...the consistent patterns of behavior which they (leaders/directors) exhibit, as perceived by others, when they are attempting to influence the activities of people. This behavior has been developed over time and is what others learn to recognize as the leader, leader style or leader personality. Followers expect and can even predict certain kinds of behavior from the leader. The pattern generally involves either task behavior or relationship behavior or some combination of both. The two types of behavior, task and relationship, are central to the concept of leadership style (Hersey & Blanchard, 1981, p. 35).
The Situational Leadership Theory defines leadership style in terms of task behavior and relationship behavior and is operationally defined as a score on the ALTERNATIVE LEADERSHIP STYLES instrument. For purposes of this study the styles of leadership were classified either relationship behavior or task behavior as follows:

**Relationship Behavior**

- $S_I = \text{High Task/High Relationship (S2)}$
- $S_{II} = \text{High Task/Low Relationship (S1)}$
- $S_{III} = \text{High Relationship/Low Task (S3)}$
- $S_{IV} = \text{Low Task/Low Relationship (S4)}$

**Task Behavior**

- $S_I = \text{High Task/Low Relationship (S1)}$
- $S_{II} = \text{High Task/High Relationship (S2)}$
- $S_{III} = \text{High Relationship/Low Task (S3)}$
- $S_{IV} = \text{Low Relationship/Low Task (S4)}$

Relationship Behavior. This term is the SLT equivalent of "consideration" from the Ohio State Leadership instruments. Relationship behavior for this study is defined as:

...the extent to which a leader is likely to maintain personal relationships between himself and the members of his/her group (followers) by opening up channels of communication, delegating responsibility and giving subordinates an opportunity to use their potential. It is characterized by socio-emotional support, friendship and mutual trust (Hersey & Blanchard, 1981, p. 35).
Task Behavior. This term is the Situational Leadership Theory equivalent of "initiating structure" from the Ohio State leadership instruments. Task behavior for this study has been defined as:

...the extent to which leaders are likely to organize and define the roles of the members of their group (followers); to explain what activities each is to do and when, where and how tasks are to be accomplished; characterized by endeavoring to establish well-defined patterns of organization, channels of communication and ways of getting jobs accomplished (Hersey & Blanchard, 1981, p. 35).

Task-Relevant Ability. This term refers to the subordinates' perceived capability to perform a given task; it is achievement motivation, the willingness and ability to take responsibility, and task-relevant education or experience of an individual or a group. Task-relevant ability is operationally defined as Performance Quotient (PQ) which is a composite score of the various scales of the ABILITY TO PERFORM APPRAISAL instrument. The rationale for modifying the variable from SLT's original "task-relevant maturity" appears in Chapter II.

Four levels of task-relevant ability were identified by Hersey & Blanchard. To accommodate this research study the variables have been reconceptualized. Supervisors were not rated by Directors as having low task-relevant ability; therefore, this cell was eliminated. The following represents the reconceptualization of task-relevant ability:
\[ A_I = \text{Moderately Low Task-Relevant Ability (A2)} \]
\[ A_{II} = \text{High Task-Relevant Ability (A4)} \]

**Congruence (of Leadership Style and Task-Relevant Ability).** This term represents the degree of "match" or "goodness of fit" between leadership style and task-relevant ability as proposed by the SLT. Matches between task-relevant ability and leadership style produce the highest congruency. In addition, congruency decreases steadily as leadership style becomes increasingly distant from task-relevant ability.

**Leadership Effectiveness.** Leadership effectiveness is defined as:

...the extent to which subordinates perceive their leader as being primarily responsible for achieving group objectives with respect to the major dimensions of leadership that have been identified.

**State Director of Vocational Education.** The person responsible to the State Board for the administration of Vocational Education in a given state.

**Head State Supervisor of Agricultural Education.** The person responsible to the State Director for the administration of Agricultural Education in a given state.

**Head State Supervisor of Business Education.** The person responsible to the State Director for the administration of Business Education in a given state.
Head State Supervisor of Marketing & Distributive Education. The person responsible to the State Director for the administration of Marketing & Distributive Education in a given state.

Head State Supervisor of Home Economics Education. The person responsible to the State Director for the administration of Home Economics Education in a given state.

Head State Supervisor of Trade & Industrial Education. The person responsible to the State Director for the administration of Trade & Industrial Education in a given state.

Chapter Summary and Organization

of the Remainder of the Study

Chapter I, introduction to the research, included the following: (1) background information, (2) statement of the problem, (3) purpose of the study, (4) research hypotheses, (5) importance of the study, (6) limitations of the study, (7) assumptions of the study, (8) key definitions, and (9) chapter summary and organization of the remainder of the study.

The importance of leadership and the current focus of research upon the situation, the leader and the subordinate
were stressed in the background information. Research hypotheses designed to test the Situational Leadership Theory among key administrators of state vocational education were centered upon three main variables in the study: leadership effectiveness, task-relevant ability and leadership style.

The research was considered significant for the generation of other research studies in vocational education leadership setting and vital to understanding the behavior of key administrators in vocational education at the state level. Previous research in this setting has been noticeably absent.

Organization of the remainder of this study will include: (1) review of related literature and theoretical framework, (2) methodology of the study, (3) analysis of data and, (4) summary, conclusions and recommendations.
CHAPTER II

REVIEW OF RELATED LITERATURE AND THEORETICAL FRAMEWORK

This research study has emerged through the search for an answer to the following question: Does leadership effectiveness of State Directors of Vocational Education correlate with the congruency between Directors' leadership style and Head State Supervisors' task-relevant ability? The search has centered on concepts and principles from the field of Management Science as well as that of Vocational Education. These concepts and principles guide the review of related literature and theoretical framework.

The review of related literature is presented in three sections. Section one focuses upon the evolution of leadership theories. Section two deals with subordinate performance measures. Section three concentrates upon leadership effectiveness measures. Following this review is a theoretical framework to guide the study.
Evolution of Leadership Theories

Since the first empirical investigation of leadership was published in 1904, a large number of theoretical and empirical pieces have been reported. These have changed the field substantially. Bass (1981, pp. 26-37) presented a classification of theories and models of leadership theory:

1. Great-Man Theory
2. Trait Theories
3. Environmental Theories
4. Personal-Situational Theories
5. Psycho-Analytic Theories
6. Interaction-Expectation Theories
   a. Leader Role Theory
   b. Role Attainment Theory
   c. Reinforced Change Theory
   d. Path-Goal Theory
   e. Contingency Theory
   f. A Multiple Screen Model
7. Humanistic Theories
8. Exchange Theories
9. Behavioral Theories
10. Perceptual and Cognitive Theories
    a. Attribution Theory
    b. Leadership as Human-Problem Solving
    c. System Analysis
    d. Rational-Deductive Approach

The evolution of leadership theories and models is detailed in Figure 3. Examples and comprehensive reviews are cited as appropriate.
<table>
<thead>
<tr>
<th>Theory</th>
<th>Sub Theory</th>
<th>Selected Studies</th>
<th>Comprehensive Reviews Conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Man Theory</td>
<td></td>
<td>James, 1880; Caryle, 1841; Woods, 1913; Wiggam, 1931; Dowd, 1936</td>
<td>Jennings, 1960</td>
</tr>
<tr>
<td>Trait Theories</td>
<td></td>
<td>Bernard, 1926; Bingham, 1927; Twad, 1929; Kilbourne, 1935; Bird, 1940</td>
<td>Smith &amp; Kruger, 1933;</td>
</tr>
<tr>
<td>Environmental Theories</td>
<td></td>
<td>Mumford, 1909; Hook, 1943; Bogardus, 1918; Hocking, 1924; Parson, 1928;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schneider, 1937; Murphy, 1941; Spiller, 1929</td>
<td></td>
</tr>
<tr>
<td>Personal-Situational</td>
<td></td>
<td>Westburgh, 1931; Case, 1933</td>
<td></td>
</tr>
<tr>
<td>Theories</td>
<td></td>
<td>Brown, 1936; Hook, 1943; Bass, 1960; Bernard, 1938;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LaPiere, 1938; Jenkins, 1947; Murphy, 1941; Gibb, 1947;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rainio, 1955; Stogdill, 1948; Gerth &amp; Mills, 1952; Gibb, 1954;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stogdill &amp; Shartle, 1955; Bennis, 1961; Cattell, 1951; Holander, 1958, 1964;</td>
<td></td>
</tr>
<tr>
<td>Psycho-Analytic Theories</td>
<td></td>
<td>Freud, 1922; Frank, 1939; Frimmel, 1941; Erikson, 1964; Levinson, 1970;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wolman, 1971; Langer, 1972; Gatzke, 1973; Waite, 1977; Davis, 1975; DeVries, 1977;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DeVries, 1977; Hummel, 1975; Steward, 1974;</td>
<td></td>
</tr>
<tr>
<td>Interaction Expectation</td>
<td></td>
<td>Homans, 1950; Hemphill, 1954</td>
<td></td>
</tr>
<tr>
<td>Theories</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Role Theory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role Attainment Change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinforced Change Theory</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 3**

Evolution of Theories and Models of Leadership
<table>
<thead>
<tr>
<th>Theory</th>
<th>Sub Theory</th>
<th>Selected Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Theories</td>
<td>Aaronovich &amp; Khotin, 1929; Mawhinney &amp; Ford, 1977; Scott, 1977; Davis &amp; Luthans, 1977;</td>
<td></td>
</tr>
<tr>
<td>Leadership as Human Problem Solving</td>
<td>Newell &amp; Simon, 1972; Lord, 1976;</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 3**

Evolution of Theories and Models of Leadership
Although there have been thousands of articles on this subject, research reviews and bibliographical essays that have been written for students of leadership over the past 30 years appear to be comprehensive (Stogdill, 1948, 1974; Cartwright & Zander, 1968; Schriesheim & Kerr, 1977; Mitchell, 1979; House & Baetz, 1979). In view of the extensive reviews plus what has become almost a standard historical treatment of leadership that most organizational behavior texts have offered (Behling & Schriesheim, 1976; Ivancevich, Szilagyi & Wallace, 1977; Wexley & Yukl, 1977; Bobbitt, Breinholt, Doktor & McNaul, 1978; Hamner & Organ, 1978; Kerr, 1979; Bass, 1981) only a brief review of these past organizational leadership theories and their interactions will be presented here.

Three distinct approaches or phases characterize the study of leadership: trait approaches, behavioral approaches and situational approaches. Figure 4 displays these approaches, time periods involved, emphasis and representative study/theory. In that each approach has certain characteristics associated with it, a brief overview is presented to facilitate understanding. These phases in the development of leadership thought are displayed in diagrammatic form in Figure 5.
<table>
<thead>
<tr>
<th>Approach</th>
<th>Time</th>
<th>Emphasis</th>
<th>Representative Style/Theories</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAIT</td>
<td>1940-50s</td>
<td>A finite set of individual &quot;traits&quot; or characteristics exist that can be used to distinguish successful from unsuccessful leaders</td>
<td>Great Man Theory, Hero Worship</td>
</tr>
<tr>
<td>BEHAVIORAL</td>
<td>1950-60s</td>
<td>The most important aspect of leadership is not the traits of the leader but what the leader does in various situations. By their potential &quot;style&quot; of leadership, successful leaders are distinguished from unsuccessful leaders.</td>
<td>Ohio State Studies, University of Michigan Studies</td>
</tr>
<tr>
<td>SITUATIONAL</td>
<td>1970-80s</td>
<td>Leader effectiveness is not only determined by his/her behavioral style, but also by the &quot;situation&quot; surrounding the leadership environment. Situational factors include characteristics of the leader and the subordinate, the nature of the task and the structure of the group.</td>
<td>Fiedler's Contingency Theory</td>
</tr>
</tbody>
</table>

*Figure 4*

Three Major Approaches to Leadership

<table>
<thead>
<tr>
<th>TRAIT PHASE</th>
<th>BEHAVIORAL PHASE</th>
<th>SITUATIONAL PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempt to determine a</td>
<td>Attempt to determine a universal</td>
<td>Attempt to determine</td>
</tr>
<tr>
<td>universal set of leadership</td>
<td>general leadership style or a</td>
<td>combinations of leader, subordinate</td>
</tr>
<tr>
<td>effectiveness</td>
<td>universally best combination of</td>
<td>and situational</td>
</tr>
<tr>
<td>characteristics</td>
<td>leadership behaviors</td>
<td>characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>which interact to produce effectiveness</td>
</tr>
</tbody>
</table>

**Figure 5**

The Development of Leadership Thought


**Trait Approaches**

Early approaches to leadership, spanning from before Christ to the late 1940's, emphasized the search for traits, personalities and leader characteristics (such as intelligence or height) in an attempt to identify a set of universals which allow leaders to be effective in all situations (e.g., Crowley, 1928). Galton's study (1870) of the hereditary background of great men was influential as research attempted to explain leadership on the basis of inheritance. The first studies analyzed Greek and Roman leaders.
For centuries, there existed an interest in the unique qualities of heroes; Thomas Carlyle's (1841) series of lectures on *Heroes and Hero Worship* reinforced this concept. Carlyle stated that heroes captured the peoples' imagination. Dowd (1936) noted that the masses are always led by a "superior few." The undergirding research belief was dependent upon the individual achievements of "great men" (Chelladurai & Carron, 1978). According to Stogdill (1974), it was believed that if the leader was endowed with superior qualities that differentiated the leader from followers, it should be possible to identify these qualities. This was the assumption that gave rise to trait theories of leadership. The resultant research (Bernard, 1926; Bingham, 1927; Tead, 1929; Kilborne, 1935) still only shed insignificant insights into the characteristics of leaders or the process of leadership. As a result of literature reviews (Gibb, 1947; Stogdill, 1948) and research studies (Carter & Nixon, 1949), the trait approach fell into disrepute. It appeared that a set of universal leadership traits, which lead to leadership effectiveness under all conditions, had not been discovered. Furthermore, as Stogdill (1948) pointed out, it became clear that:

...the pattern of personal characteristics of the leader must bear some relevant relationship to the characteristics, activities and goals of the followers. Thus, leadership must be considered in
terms of the interaction of variables which are in constant flux and change (p. 64).

Finally, the quest for universal leadership traits greatly diminished since the theories simply were not well supported. After reviewing 124 studies that reported some attempt to determine traits of unsuccessful leaders, Stogdill (1948) concluded that there was some support for the leader exceeding the average member of the organization in certain traits. However, Stogdill (1974) stated that "...findings suggest that leadership is not a matter of passive status or of the mere possession of some combination of traits" (pp. 62-63).

Behavioral Approaches

With the demise of the trait approach, research focused on the behavior of the leader, "...activities that the leader engages in when fulfilling a leadership role" (Chelladurai & Carron, 1978, p. 7).

During this period, dating roughly from the late 1940's to the early 1960's, two major research programs characterized this era: 1. The Ohio State Leadership Studies and, 2. The University of Michigan Studies.

The Ohio State Leadership Studies. These studies, under the direction of Carrol L. Shartle, began shortly after the second World War. Although "one of their principal objectives was the testing of the hypothesis
concerning the situational determination of leader behavior" (Shartle, 1956, p. 1), much of the program was devoted to the examination of relationships of leader behaviors and subordinate satisfaction and performance (Jacobs, 1970). Figure 6 details the leadership studies that were produced in both the Ohio State series and the University of Michigan series.

In one study (Halpin & Winer, 1957), a lengthy Leader Behavior Description Questionnaire (LBDQ) was administered to bomber crews. Responses were subjected to statistical analyses that identified common dimensions underlying a large set of answers. Two factors accounted for most of the variance in the leader behavior descriptions:

1. **Consideration** was the strongest of the two factors explaining about half of the common variance. Leader consideration behaviors were defined "as being indicative of friendship, mutual trust, respect and warmth" (Halpin & Winer, 1957, p. 42).

2. **Initiating Structure** was the second largest factor, accounting for about a third of the common factor variance. Initiating structure behaviors were defined as those "which indicate that the (leader)...organizes and defines the relationship between himself and the members of the crew" (p. 42).

These behavior-centered studies had two profound impacts on leadership research that have continued to the present time: 1. The administering of surveys to subordinates and; 2. The factoring of leader behaviors into essentially a dichotomy of person-oriented behavior—such as
A research approach that initially sought to determine the most effective leadership style. Findings indicate that a blend of initiating structure & consideration is best (e.g., Shartle, 1956).

Employee centered & job centered styles result in productivity increases. Employee centered is the better style. (e.g., Likert, 1961)

Figure 6
Summary of Behavioral Approaches to Leadership
(Ohio State Studies and University of Michigan Studies)

the Ohio State group's consideration and performance-oriented behavior—such as initiating structure. In subsequent studies using modified versions of the LBDQ, initiating structure and consideration were found to be prime dimensions of leader behavior in different situations (Stogdill & Coons, 1957). However, in a number of studies dysfunctional consequences accompanied these positive outcomes (e.g., Fleishman, Harris & Burtt, 1955; Fleishman & Harris, 1962). Thus, while display of highly structuring/highly considerate behavior was found to result generally in positive organizational outcomes, this was not true in all cases or even in most cases (Vroom, 1964; Anderson, 1966; Korman, 1966; Campbell, Dunnette, Lawler & Weick, 1970).

The Ohio State leadership studies, therefore, demonstrated that initiating structure and consideration are primary behaviors displayed by leaders. However, these studies did not clearly show how these behaviors relate to subordinate performance and satisfaction over the spectrum of situations in which leaders find themselves (Filley et al., 1976).

The University of Michigan Studies. During the same time period as the Ohio State studies, the University of Michigan Research Center was conducting research on leadership. Similar behavior results (employee orientation and production orientation) were obtained in these studies.
Michigan researchers originally concluded that it would be difficult for a leader to hold simultaneously both an employee orientation and a production orientation. However Katz & Kahn (1952), after conducting a study of employees in a manufacturing company, stated that leaders could be either high or low on one or both dimensions. A few Michigan researchers asserted that an employee orientation was to be universally preferred to a production orientation (e.g., Likert, 1961a), Katz & Kahn concluded that this was not the case. They indicated that effective leaders demonstrate employee and production orientations in different degree, depending upon the situation.

Research clearly indicated that no single leadership style or set of behaviors was universally effective. The relationships among leader behavior, organizational performance and subordinate behavior were situationally determined. By the early 1960's with this as an apparent fact, leadership researchers began to modify their research focus to concentrate on situational approaches.

Situational Approaches

Situational approaches examine the interrelationships among leader and subordinate behaviors (characteristics) and the situations in which they interact. Current leadership research is focusing almost exclusively on the situational approaches.
Largely as a result of the behavioral findings, a number of situational approaches to leadership has been developed (Fiedler, 1964; Hersey & Blanchard, 1969; Stogdill, 1969; House, 1971). The direction of research in leadership has followed Stogdill's observation that "an adequate analysis of leadership involved not only the study of leadership but also situations" (1948, p. 65).

Situational approaches emphasized that behaviors and traits of the leader must vary with the situation in order to achieve leadership effectiveness. Factors that influence leadership effectiveness include:

1. the personality of the leader;
2. the performance requirements of the tasks of both leader and followers;
3. the attitudes, needs and expectations of followers; and
4. the organizational and physical environment of the leader and the group (Filley & House, 1969, p. 397).

Gerth and Mills (1952) postulated that to understand leadership attention must be paid to:

1. the traits and motives of the leader as a person;
2. images that selected publics hold of leader and their motives for following leader;
3. the features of the role that the leader plays as a leader; and
4. the institutional context in which leader and followers may be involved (Stogdill, 1974, p. 19).
Many researchers have attempted to categorize the situational factors which determine appropriate leader behaviors (French, 1950; Davis, 1954; Stogdill, 1959; Likert, 1961b). Filley and House (1969) have concluded that the following situational variables might have influence upon leadership effectiveness:

1. the previous history of the organization, the age of the previous incumbent in the leader's position, the age of the leader and his previous experiences;
2. the community in which the organization operates;
3. the particular work requirements of the group;
4. the psychological climate of the group being led;
5. the kind of job the leader holds;
6. the size of the group led;
7. the degree to which group members' cooperation is required;
8. the cultural expectations of subordinates;
9. group member personalities; and
10. the time required and allowed for decision making (p. 409).

Studies utilizing situational approaches offer rather compelling evidence that these approaches to leadership research are more realistic than either the trait and/or behavioral approaches (Filley et al., 1976). Situational approaches only add to true leadership knowledge when critical variables of the situation are identified and functional relationships between situational variables and leadership traits and behaviors are stated.
Three situational approaches which have been advanced in an attempt to deal with these complexities are:

1. Fiedler's Contingency Theory (1967, 1972; Fiedler & Chemers, 1974);
2. House's Path-Goal Theory (1971; House & Dessler, 1974);

These situational approaches are referred to as "contingency theories" because each contains a number of factors that serve as contingencies or moderate the relationship between two other variables. These three theories are detailed in the paragraphs that follow. All three theories are relevant to this research in that they all propose prescriptions for effective leadership.

**Fiedler's Contingency Theory.** One of the first major contingency theories developed was by Fiedler (1967, 1972, 1974). It specified leader/member relations, task structure and leader position power as modifying variables that correlated with leadership effectiveness utilizing various leadership styles. However, Fiedler believed that these individual leadership styles depended to a considerable degree on whether or not the leader was high or low on a trait-like measure called Least Preferred Coworker (LPC). Thus, Fiedler's Contingency Theory could be more properly labelled as a trait theory than as a situational theory. However, his contributions were major in that he actually performed research on the situational notion that others had only exposed and not yet tested.
One proposition of Fiedler's model stated that relationship-motivated leaders display task-oriented behaviors (such as structure) in situations which are favorable to their exertion of influence over their work group. These same leaders display relationship-oriented behaviors (such as consideration) in situations which are either moderately favorable or unfavorable. Fiedler's theory specified that relationship-motivated leaders would be more effective than task-motivated leaders in situations which were moderately favorable for leader exertion of influence. The opposite also holds true. Figure 7 pictorially displays Fiedler's theory.

Fiedler and associates in the early 1950's began research on the relationship between organizational performance and leader attitudes. With the LPC instrument, they sought to determine whether very lenient leaders (regarding associate evaluations) are more or less likely to lead an effective, high-producing group than leaders who are highly demanding and discriminating during the evaluation process. The LPC instrument measures the degree to which leaders see even a poor co-worker in a relatively favorable manner (Fiedler, 1967). Three situational components of
Figure 7

Fiedler's Contingency Model of Leadership
favorableness were identified in Fiedler's theory. These components were:

1. The leader's personal relationship with members of the group;
2. The formal power or authority which the leader position provides; and
3. The degree of structure in the task which the group will perform (Fiedler & Chemers, 1974, p. 69).

Fiedler's Contingency Model is not without its critics; this model suffers from a number of shortcomings. Although Fiedler and others, had been able to replicate his early findings regarding the relationship between LPC score and successful leadership under the variously stated contingencies, other researchers have not been as successful. Fiedler's theory has been criticized because of the problems with the measurement of situational favorability or situational control (Schriesheim & Associates, 1977; Schriesheim & Hosking, 1978).

In summary, Fiedler's theory was concerned with leader's motivational behavior and situational favorableness. Although this theory did much to recognize the dynamic, multidimensional nature of leadership, it appears leadership researchers needed to consider alternatives.

House's Path-Goal Theory. This second contingency theory emphasized the needs and goals of subordinates (Chellandurai & Carron, 1978). House's situational theory
focused upon leader behaviors as the leader characteristics; whereas Fiedler used leader's motivational orientation and situational favorableness as research focus.

House's concept was based on theoretical work by Evans (1970) and extended and formulated into the Path-Goal Theory (House, 1971; House & Dessler, 1974; House & Mitchell, 1974). This theory focused on the concept of leader as being more of a "facilitator" than a "wielder of power."

House and Mitchell explained:

The initial theoretical work by Evans asserts that leaders will be effective by making rewards available to subordinates and by making these rewards contingent on the subordinates accomplishment of specified goals. Evans argued that one of the strategic functions of the leader is to clarify for subordinates the kind of behavior that leads to goal accomplishment and valued rewards. This function might be referred to as path clarification. Evans also argued that the leader increases the rewards available to subordinates by being supportive toward subordinates (e., g., by being concerned about their status, welfare and comfort). Leader supportiveness is in itself a reward that the leader has at his or her disposal, and the judicious use of this reward increases the motivation of subordinates (1974, pp. 364-365).

The Path-Goal Theory addressed the effectiveness of four different leader behaviors—(directive, supportive, participative and achievement-oriented)—under three individual characteristics (ability, locus of control, needs & motives) and under three work environments (nature of the task, group factors and organizational factors). Within the past five years, Path-Goal Theory, or at least the
contingent-behavior area of inquiry, has been the most widely accepted notion for attempts at understanding the phenomenon of leadership in organizations. McCall & Lambardo (1978), in their summary of a book resulting from a conference at the Center for Creative Leadership in the mid-1970's stated:

We can say that a leader's consideration toward subordinates is correlated with their satisfaction (though the direction of the casual arrow remains in doubt). We can say with assurance that leadership is a situational phenomenon and that no particular style and/or approach will be effective in all situations. We know that leaders play a crucial role by structuring the expectations of their followers. These are not trivial statements...(pp. 162-163).

Figure 8 presents a summary of House's Path-Goal Theory of Leader Effectiveness.

Hersey & Blanchard's Situational Leadership Theory (SLT). This contingency theory is the third and final approach to the study of leaders and leadership to be presented. The emphasize of the SLT is on the behavior of the leader in relation to the subordinate. Sanford (1950) indicated that there is some justification for regarding subordinates "as the most critical factor in any leadership event." Subordinates are vital in any situation not only because individually they accept or reject the leader but because as a group they determine the leader's personal power.

To clarify better the SLT, "maturity" of followers has been reconceptualized to "ability" of followers.
Achievement Instrumental Supportive Participative Orient- ed

Leader Behavior Styles

Situational Factors

Characteristics of Subordinates
Ability
Locus of control
Needs & motives

Work Environment Characteristics
Nature of task
Group factors
Organizational factors

Subordinate Perceptions

Effort-to-Performance Expectancy
Performance-to-Reward Expectancy
Valence

Outcomes

Effort Motivation Performance Satisfaction

Figure 8
Summary of House's Path-Goal Theory of Leader Effectiveness

Explanation for this change in perspective is given later in this chapter.

The literature stated the need for a significant situational model in leadership research. Korman after extensively reviewing leadership studies involving initiating structure and consideration concluded:

What is needed in future concurrent (and predictive) studies is not just recognition of this factor of "situational determinants" but rather, a systematic conceptualization of situational variance as it might relate to leadership behavior (1966, p. 355).

A quadratic relationship is implied by the appropriate matching of leadership style and subordinate ability level. Korman proposes the possibility of a curvilinear rather than a linear relationship between initiating structure (task behavior) and consideration (relationship behavior) and other variables. Figure 9 pictorially represents the SLT. The SLT is based on a curvilinear relationship between task behavior, relationship behavior and the ability of the followers. The theory focuses on providing leaders with insight regarding the relationship between the level of ability of the followers and the various leadership styles (leadership style should vary as the situation varies).

Thus, there are situations for which a high task/low relationship leadership style would be appropriate and another style would be inappropriate—that is, any style
SITUATIONAL LEADERSHIP

other than the "appropriate" one would result in less than satisfactory outcomes. However, based on methodological considerations, this study has reconceptualized SLT components, leadership style and task-relevant ability. Responses generated from this research were inadequate to occupy all cells of the SLT model for these components. Therefore, data were aggregated to adequately test the SLT.

Based on the Life Cycle Theory (Hersey & Blanchard, 1969a, 1969b, 1969c), the SLT is one of the current contingency theories proposed in leadership studies, which is an outgrowth of the Hersey & Blanchard Tri-Dimensional Leadership Effectiveness Model. This model, adapted by Hersey & Blanchard from the work of Reddin (1967, 1970), is depicted in Figure 10.

Reddin's work synthesized the components of task and relationship dimensions of earlier models such as the Managerial Grid (Blake & Mouton, 1964) and the Ohio State Grid (Stogdill & Coons, 1957) and added an effectiveness dimension. Hersey & Blanchard comment on the effectiveness dimension in SLT:

If the effectiveness of a leader behavior style depends upon the situation in which it is used, it follows that any of the basic styles may be effective or ineffective depending on the situation. The difference between the effective and ineffective styles is often not the actual behavior of the leader but the appropriateness of this behavior to the environment. It is the interaction of the basic style with the environment that results in a degree of effectiveness or ineffectiveness (1977, p. 105).
Figure 10

Tri-Dimensional Leader Effectiveness Model

Terminology employed by Hersey and Blanchard is synonymous with other behavioral theories: namely, task behavior/consideration and relationship behavior/initiating structure. The essence of the SLT revolves around the interplay of 1) the amount of leader guidance and direction--task behavior, 2) the amount of socio-emotional support provided by the leader--relationship behavior, and 3) the readiness--ability level--that subordinates exhibit in performing a specific task, function or objective.

Four leadership styles of the SLT have been identified in Figure 2: "telling," "selling," "participating," and "delegating." This research effort reconceptualized the leadership styles in two major styles: $S_I =$ "selling" & "participating"; and $S_{II}$ = "telling & "delegating." The appropriate leadership style for each of the two ability levels included the right combination of task behavior (direction) and relationship behavior (support).

$S_I =$ "Selling" is for low to moderate ability people. Subordinates at this ability level are unable but willing (A2) to accept responsibility and confident but lack necessary skills. A "selling" leadership style ($S_2$) provides directive behavior to reinforce their willingness and has the highest probability of being effective with individuals of the ability level.
"Participating" is for moderate to high ability people. Subordinates are able but unwilling (A3) to do what the leader requests. A supportive, nondirective "participating" leadership style (S3) appears to be most appropriate with this ability level of follower.

SII = "Telling" is for low-ability people who are both unable and unwilling (A1) to take responsibility to perform a task and are not confident or competent. A directive "telling" leadership style (S1) that provides specific instructions appears to be most appropriate with individuals of this ability level.

and

= "Delegating" is for high-ability people. Subordinates are able and willing or confident (A4) to take responsibility at this ability level. A low-profile, "delegating" leadership style (S4) providing little direction or support, has the highest probability of being effective with individuals of this ability level.

The SLT combined the structure and consideration dimensions of the Ohio State studies (Stogdill & Coons, 1957) with the Maturity-Immaturity Theory (Argyris, 1964). Four basic leader behavior quadrants are labelled: High Task/Low Relationship; High Task/High Relationship; High Relationship/Low Task; and Low Relationship/Low Task. A component of this theory is subordinate ability. Subordinate ability is the "capacity to set high but attainable goals, willingness and ability to take responsibility, and education and/or experience of an individual or of a group" (Hersey & Blanchard, 1977, p. 161). These variables are task specific: that is, the
ability level of any individual is specific to the task that is to be performed. This conceptualization was strongly influenced by works of two researchers: Argyris (1957) on relative independence in organizations and McClelland & Associates (1953, 1961) on achievement motivation.

SLT states that as the level of follower ability increases in terms of completing a specific task, the leader should adjust task and relationship behaviors; thus, adapting leadership style. The theory focuses on the appropriate leadership style matched with the subordinate ability level (Hersey & Blanchard, 1977). Matching leadership style and subordinate ability levels enables a high probability of performance success and thus, ensuring effective leadership (Gates et al., 1976).

SLT Research Issues. Although not having been empirically tested on an extensive basis, the conceptual framework does have intuitive appeal. Five major issues do exist regarding the SLT that are, as yet, unresolved. These issues include: operationalization of task-relevant ability, leadership style, leader flexibility, indirect measurement of leadership effectiveness and individual/group application. To facilitate better understanding of the SLT, each issue has been addressed in the subsequent paragraphs.

The first issue that related to the empirical testing of SLT was the reconceptualization of "task-relevant
maturity" to the operationalization of "task-relevant ability." This variable referred to an individual's capacity to perform certain tasks and does not refer to that person's overall chronological maturity or age. This distinction has often been difficult for respondents to make (Beck, 1978; Hersey & Blanchard, 1982). Researchers have expressed concern for the rationale for combining personality, a stable component, with ability which is less stable—as implied in the term "maturity" (Beck, 1978; Chelladurai, 1978; Clark, 1981). For this study, "task-relevant maturity" has been reconceptualized as "task-relevant ability" to add clarity to the research. Chapter III provides rationale for this semantic shift.

A second issue concerns the assessing of leadership style. Leadership style is often measured by leader self-report questionnaire (Stogdill, 1974). From a conceptual and methodological standpoint, the issue of assessing leadership style is critical. Different research results are generated simply by the fact of who is determining the leader's style. Research has shown that there exists a wide discrepancy between leader's self-report perception of behavior and subordinates' perception of that same leader behavior (Austin, 1973; Smith, 1975; Trease, 1980; Clark, 1981). The ALTERNATIVE LEADERSHIP STYLE instrument (adapted from Hersey & Blanchard's, LEAD-OTHER, 1969) for subordinate perception of leadership style was utilized in this study.
The question of leader flexibility is a third issue. Previous research on leadership assumes that personality directs leader style (Fiedler, 1967). In that personality is relatively stable or rigid, it is assumed that leader style is also relatively stable and likewise rigid (Fiedler, 1967, 1968). However, evidence has surfaced that supports the belief that behaviors associated with leadership styles can be learned (Osborn & Hunt, 1975a; Lyle, 1976; Rinfret-Raynor, 1977; Beck, 1978; Clark, 1981). Researchers who have tested SLT have assumed that leaders are able to manipulate leadership style consciously (Beck, 1978; Vos Strache, 1978; Morris, 1978; Clark, 1981).

A fourth conceptual weakness of SLT is the indirect measurement of leadership effectiveness. Previous research has utilized the term "style adaptability" to be used synonymously with "effectiveness" (Trease, 1980; Clark, 1981). An effective leader is one who has properly "adapted" the matching of appropriate leadership styles with environmental situations. An independent measure of leadership effectiveness is imperative to obtain if a theoretically sound testing of the SLT model is to be made. Such a measure reflects the leader's relative effectiveness and yet is not influenced by the leader's adaptability to the propositions of the theory. For this study the LEADERSHIP EFFECTIVENESS APPRAISAL instrument, adapted from the work of Yukl & Nemeroff (1979), was utilized.
A final contentious issue focused on Hersey & Blanchard's references to individual and group in the application of their model. Literature cited in Chapter I (Sashkin & Garland, 1979; Schriesheim, 1980), proposed that studies based on group-performance measures rather than on individual-performance measures might not bear the same relationship to leader behavior. Literature substantiating the SLT (Hersey & Blanchard, 1969a, 1969b, 1977, 1982), alluded only slightly to the issue of differences between these two types of measures. For this research effort, individual measures relevant to the leader/subordinate dyadic relationship provided the basis for analysis.

Research studies testing the SLT model have generated contradictory results. Smith (1975) studied principals and teachers of elementary schools for her research. Two independent measures of maturity were employed: time competency and student reading achievement scores. Smith's results provided partial support for the model; however, insufficient data in the low task/low relationship leadership quadrant were generated for a complete data analysis.

Morris (1978) conceptualized teaching styles as synonymous with leadership styles. By manipulation of teaching styles, nursing students increased performance when exposed to the styles suggested by the model. However, Beck (1978), also using principals and teachers of elementary
schools, found inconclusive results which failed to support the propositions of the theory.

Gooding (1978), in another nursing investigation, attempted to determine significant relationships among the leadership styles of administrative heads of accredited baccalaureate nursing programs and various organizational variables. One organizational variable was group maturity. Results indicated that leadership styles were independent of the organizational variables that were tested. Gooding suggested these findings might be explained by the operationalization of maturity as a group (and therefore averaged) measure.

In a more recent study involving nursing, Trease (1980) attempted to determine whether an association existed between the leadership style of hospital nurse leaders and position, unit assignment and leadership experience. Using the LEAD-SELF (LEADERSHIP EFFECTIVENESS ADAPTIBILITY DESCRIPTION-SELF) instrument, she concluded that nurse leaders preferred to operate with both high task as well as high relationship leadership styles. She recommended employing the LEAD-OTHER instrument in further research. (This present research used this instrument, although it was renamed in this study for purposes of clarity for the respondents).

Several additional studies made use of SLT without specifically testing its components (Lyle, 1976; Rinfret-
Raynor, 1977; Rosenblum, 1977). A ten-step planning process for educational institutions integrating the SLT was studied by Lyle. Improved management effectiveness of educational leaders was the focus of this research. The effects of training leaders using the SLT approach was the focus of both studies by Rinfret-Raynor and Rosenblum.

Finally, in a recent study examining leadership in an entire school district, Clark (1981) concluded that the maturity scale did not discriminate levels of maturity very well. Refined instrumentation and improved methodology were recommended.

THEORETICAL FRAMEWORK

This study was guided by a theoretical framework. Two components structuring this framework were: Subordinate Performance Measures and Leadership Effectiveness Measures.

Subordinate Performance Measures

The limited number of studies that have investigated the causal relationships between leader behavior/subordinate performance and satisfaction/motivation have suggested certain leadership styles influence subordinate behavior and other leadership styles are a result of certain subordinate behavioral characteristics.
Research has suggested:

1. A leadership style that can be broadly classified as being employee oriented (relationship behavior) appears to cause subordinate satisfaction;

2. High performing individuals or groups tend to cause the leader to be more employee oriented (relationship behavior);

3. Low performing individuals or groups tend to cause the leader to be more task oriented (task behavior) (Greene, 1975, pp. 187-193).

In that research clearly states that subordinate performance has a direct impact on leader behavior (Greene, 1973, 1975), researchers now focus on the variables that impact productivity and satisfaction. Variables that have been investigated include: group cohesiveness (Hemphill, Siegel & Westie, 1951); absenteeism (Fleishman, 1957); absenteeism, grievances and personnel turnover (Fleishman, Harris & Burtt, 1955). The variable that impacts job performance to be investigated in this research was subordinate task-relevant ability.

Prior research tends to conclude that productivity and satisfaction are a consequence of leader behavior. In 1977, Greene and Schriesheim concluded a longitudinal study that supported this belief. That study suggested that the greater the intensity of initiating structure (relationship behavior) a leader can contribute to interpersonal relations, the higher the probability exists for positive subordinate performance.
This research focused on the assumption that high-caliber persons possessing greater skills and ability will perform better than less skilled low-caliber persons, particularly when those high-caliber persons are motivated (Vroom, 1960). These persons function more effectively in complex or ambiguous situations (Schuler, 1976); the style and direction of leader behavior are affected.

Research on subordinate ability has investigated a vast number of different variables with little research focus on any group of variables. This lack of concentration is a definite problem in organizational research. Recent studies have utilized as global measures of subordinate ability: intelligence/achievement tests (Kaufman, 1972) to "years of education" and "years of work experience relevant to the present job" (Schuler, 1976) to "years in supervision" (Trease, 1980).

Regarding relative subordinate competency and leadership style, research indicates that subordinate perception and judgment of their leaders is in part a function of that competence. Stogdill & Coady (1970) conducted research on the preferences of occupational students regarding different styles of supervisory behavior. The students' perception of their teachers was related to perceived competence. In similar research on student perceptions of superiors, Kavanaugh (1972) substantiated this belief.
Research suggests that certain leadership styles are associated with subordinate performance levels. Positive associations between competence and consideration and negative associations between competence & initiating structure exist (Lowin & Craig, 1968; Greene, 1975; Pate, 1976). These results substantiate the conclusions that leadership affects subordinate performance (Katz et al., 1950; Blake & Mouton, 1964; Greene, 1975).

Although leadership can affect performance, subordinate performance can also affect leadership. Research has found leaders were less structuring and more considerate for competent subordinates than for incompetent subordinates (Lowin & Craig, 1968). Subordinate performance can occasionally initiate leader behaviors. In a comprehensive review of leadership studies (Korman 1966), little evidence surfaced to support the assumption that leadership style is a casual variable. Korman stated it was just as plausible to assume that a leader is high on "consideration" because the group was performing well as it was to assume the reverse. Research has shown that subordinate past performance can affect most aspects of leader behavior, especially in areas of support, goal emphasis and interaction facilitation. In their update of Korman's 1966 review article, Schriesheim & Kerr (1977) noted that few research studies have manipulated consideration and
initiating structure as independent variables. They therefore concluded "it is possible that performance might well cause certain levels of consideration and structure rather than being caused by those variables as it is commonly assumed" (1974, p. 557). This supports the earlier findings of Seeman (1957). He concluded that leaders adjust their structuring behavior to match the experience of their subordinates' ability levels.

Research indicates that establishing causality is difficult when dealing with the variables of subordinate performance and leadership style (Greene, 1975). Empirical findings (Lowin & Craig, 1968; Farris & Lim, 1969; Dawson, 1972) and theoretical investigations (Hollander & Julian, 1969) suggested there is a reciprocal causal relationship between subordinate performance and leadership style. Herold (1977) noted, "...Increasingly we seem to be realizing that a fuller understanding of leader and subordinate behaviors involves a comprehension of how they affect and are affected by each other" (p. 224).

Although much has been done to determine measures of subordinate ability, competence and proficiency, behavioral scientists continue to speak of a so-called "criterion problem." Difficulties in developing adequate measures of individual job performance affect this problem.
Leadership behavior requires that it be investigated as a dependent as well as an independent variable for a comprehensive understanding. To the extent that subordinate performance affects leadership, causal interpretations of correlations between leadership and subordinate performance suggests the possibility that subordinate performance affects leadership behavior. With causality in doubt, distinguishing effective leaders from ineffective leaders is problematic. Two questions compound this controversy: on what criteria should a leader be evaluated and, who should perform the evaluation. Although acknowledging the importance of determining leadership effectiveness, current leadership contingency theories do not completely account for this variable.

Research indicates strong relationships between increased leadership effectiveness and initiating structure (Korman, 1966; Tompkins, 1972; Miles & Petty, 1977). Current studies linking certain leadership styles with effectiveness suggest combinations of high consideration and high structure result in greater effectiveness. The Ohio State University studies, serving as catalyst research, indicate that the two dimensions were orthogonal; a leader could exhibit simultaneously characteristics of both dimensions. Subsequent studies (Halpin, 1955; Hemphill,
1954; Fleishman & Harris, 1962; Misumi & Tosaki, 1965; Anderson, 1966; Fleishman, 1969; Sergiovanni et al., 1969) support the proposition that high task/high consideration leaders should be more effective.

However, the lack of consistency of research exists linking certain leadership styles with effectiveness. Literature reviews (Korman, 1968; Campbell et al., 1977) have shown that neither the considerate leader nor the structuring leader is consistently more effective. Further research states that participative management has been effective in certain situations (Vroom, 1960).

Certain leadership styles are related to increased effectiveness (Korman, 1966, 1968). However, the pertinent research question involves identifying the conditions under which these relationships exist between style and effectiveness. Tompkins (1972) used this rationale to explain why current "moderator or adaptive" theories of leadership provide greater insights into leader effectiveness used as a dependent variable. The theories outlined earlier in this Chapter are the most sophisticated attempts at incorporating an effectiveness dimension into the underlying theoretical bases of each of the models. Theories previously cited regarding incorporation of an effectiveness dimension into the models are researchers most advanced attempts. However, even these models do not adequately develop this variable. Rowland (1966) commented, pessimistically, that there is little to suggest what an
effective leader is, how to identify one and what might be done to increase the effectiveness of the leader.

Research further indicated that results vary for leadership effectiveness from dyadic analysis versus group analysis. Burns (1978) and Hollander (1958) state that the study of leaders and the study of subordinates have been divorced too long. Actually, dependency relationships exist between leader and subordinate, for whoever leads and whoever follows stimulates and reinforces the other's behavior. A mutual influence process of leaders and subordinates exists. However, this phenomenon leads to problems of measurement evident in the literature. Graen (1976), in concentrating on the dyadic relation between leader and subordinate noted that a behavioral interdependence formed between individuals, which produced skewed measurements. Damico (1976) investigated relationships between employee maturity and leader's style on leadership effectiveness. One measure of leadership effectiveness utilized "employee performance"—as measured by the Simm's Performance Evaluation. But Fujii (1976) found that analyses of leader/subordinate relations in an experimental setting based on dyads did not differ greatly from analyses based on mean group results. Other research was undertaken to validate the SLT. Partial support for Hersey & Blanchard Situational Leadership Theory was shown
by leadership researchers (Tompkins, 1972; Smith, 1975; Bird, 1978; Morris, 1978; Trease, 1980; Clark, 1981).

Employee satisfaction is one indirect measure of leader effectiveness that has been researched. Consistently, evidence is positive that more satisfied leaders perform better. It is assumed satisfied subordinates will be more effective and perform higher in their respective jobs than dissatisfied subordinates (Lawler & Porter, 1967). In that the leader has the greatest impact on the maintenance of conditions leading to employee satisfaction, this provides a measure of the degree of effectiveness the leader has in a particular environment. Research provided partial support for the SLT (Beck, 1978; Trease, 1980; Clark, 1981). Slocum, Miller & Misshauk (1970) also reported that high producing foremen were better satisfied than low producers.

Operationalizing leadership effectiveness by tapping group measures, evidenced by the preceding examples, is at best inadequate. Not taken into account, is the fact that subordinates may produce despite leader behaviors. Highly satisfied employees are not exclusive indicators of leadership effectiveness; however, these factors do contribute. Leaders high on consideration and low on initiating structure provide environments conducive to subordinate satisfaction (Abot El Enein, 1969; Graen et al., 1973). It does appear that these indirect measures, although related to leadership effectiveness, are more measures of style.
Researchers have hypothesized that relationships between leader behaviors/subordinate outcomes depend upon the subordinate's perception of the utility of the leader's behaviors. This hypothesis was based on House's (1971) Path-Goal Leadership Theory. If the subordinate perceives the leadership style as facilitating a goal and view of that behavior is favorable; then, the behavior is perceived favorable and vice versa. The subordinates' individual rating of leadership effectiveness could be considered to be the truest measure of this dimension.

Finally, research on subordinate perception of leadership style indicated that consistency of ratings by subordinates are not evident. Work groups, due to this phenomenon, could not evaluate leader behaviors consistently (Fujii, 1976). Research substantiated, however, that subordinate performance was positively correlated with compatibility between leaders and subordinates on subjective ability measures. This vertical dyad linkage, between leader/subordinate and the interrelated perceptions inherent in this dyad, focused research attention (Burns, 1978). In that it is well documented that leaders may exhibit a wide range of leadership styles within the same work group (Lowin & Craig, 1968), it might well be possible that leaders possess a range of effectiveness levels with individual subordinates within the same work group.
Summary
and Conclusions

A review of related literature considered pertinent to this study and a development of a theoretical framework were presented in this chapter. Leadership theory evolution was traced; trait approaches, behavioral approaches and situational approaches were presented. An overview of the various measures of subordinate performance as they relate to the subsequent behavior of the leader was provided. In the subordinate performance measures section, the difficulty of establishing causality when dealing with the variables of leadership style and subordinate performance was discussed. The final section dealt with leadership effectiveness measures, inherent definitional concerns and methodological problems. Included was evidence supporting a vertical dyad linkage approach to measuring leadership effectiveness as opposed to the more traditional group approach.

A brief summary of the research findings which set the stage for this research effort follows:

Trait Approaches

1. Although results of trait investigations appeared helpful in identifying certain salient characteristics of leaders, little evidence was provided for understanding or predicting leadership effectiveness. Dissatisfaction with the trait approach led researchers to examine actual leader behaviors in various settings. From these studies, there developed a great deal of confusion and overlap regarding the definition and measurement of leader behavior.
2. Significant findings between individual traits and leadership effectiveness were a major contributor to situational-factors research exploration. Individual traits did not predict individual behavior in leadership situations. Traits identified who the leader was, not the behavioral patterns the leader exhibited in attempting to influence subordinate actions.

Behavioral Approaches

3. The Ohio State and University of Michigan studies attempted to explain the leadership situation in terms of the behavioral styles of the leader; that is, what the leader did, not leader personal characteristics. Dissatisfaction with the trait approach led researchers to examine the actual leader behavior in various settings. From these studies, there developed a great deal of confusion and overlap regarding the definition and measurement of leader behavior. Two basic leadership styles are included in most behavioral approaches: task orientation and employee orientation.

Situational Approaches

4. Fiedler's contingency model was one of the first approaches to leadership that included situational factors in its framework. His basic proposal was that the effectiveness of groups was dependent on the interaction between leadership style and situational favorableness for the leader. The situational favorableness was determined by the analysis of leader-member relations, task structure and leader position power. The criticisms of the model have focused on its validity, theoretical base and methodology. For practicing administrators the model has great value in identifying some of the important situational variables that must be considered. As an analysis or predictive model, the leader and situational variables effect each other or interact to yield group effectiveness.
5. House's path-goal theory, another situational approach to leadership, was based on the interactions of leadership style and the situational characteristics of the individual and the work environment. The value of this model to practicing administrators is twofold. First, the leader's style is identified in terms of four dimensions, rather than one dimension as proposed by Fielder. This multidimensional view of leadership style is more representative of the nature of the administrator's job. Second, the path-goal model details the specific interactions between leader behavior and situational factors. Administrators realize behavior must be adjusted to different situations. Major criticisms of this model focused on the growing complexity of the theory and the limitation of the theory to discuss adequately the aspect of performance.

6. Hersey & Blanchard's Situational Leadership Theory states that as the ability level of the subordinate increases in terms of advanced task accomplishment, the leader behavior should be reflected in reduced task behavior and increased relationship behavior. This would continue until the subordinate has achieved a moderate ability level. As the subordinate advanced to an above average ability level, the leader behavior should reflect decreased task and relationship behaviors. At this level, the subordinate is not only able to perform the job in terms of task performance, but also is psychologically able to perform the task.

7. Five methodological issues were cited regarding the Situational Leadership Theory. These issues included: operationalization of task-relevant ability, leadership style, leadership flexibility, indirect measurement of leadership effectiveness and individual/group application.
Subordinate Performance Measures

8. Several measures of subordinate performance were cited in the literature review. These included: causal relationships of leadership styles and subordinate characteristics; impact of subordinate performance on leader behavior; association of relationship behavior & subordinate performance; subordinate ability & performance; subordinate ability indexes; subordinate perceptions & leader competence; and leadership styles & subordinate performance.

Leadership Effectiveness Measures

9. Several measures of leadership effectiveness were cited in the review of related literature. These measures included: leadership behavior as an independent & dependent variable; relationship of leadership effectiveness & initiating structure; leadership styles & effectiveness; dyadic analysis versus group analysis; subordinate satisfaction & leadership effectiveness; and subordinate ratings of leadership style.
CHAPTER III

METHODOLOGY OF THE STUDY

The major purpose of this study was to determine whether leadership effectiveness of State Directors of Vocational Education was positively correlated with the congruency between Directors' leadership style and Supervisors' task-relevant ability. Review of related literature and undergirding theoretical considerations were presented in the preceding chapter. In this chapter are presented the description of the study, research design, populations, variables, instrumentation, data collection procedures and analysis of data.

Description of the Study

The study was designed to test the adequacy of the SLT in selected vocational education state-level administration environments. Specifically, the study tested whether leadership effectiveness of State Directors of Vocational Education was related to the degree of congruence between
the variables leadership style and task-relevant ability. The research was conducted with State Directors of Vocational Education and their Head State Supervisors of Agricultural Education, Business Education, Marketing & Distributive Education, Home Economics Education and Trade & Industrial Education from 50 state departments of vocational education in the United States.

Research Design

The research design employed was described by Stanley (1967) as a field study. Stanley considered field studies of this particular nature to be partially controlled quasi-experiments. Kerlinger (1973) stated the advantages of this design as:

Field studies are strong in realism, significance, strength of variables, theory orientation and heuristic quality (p. 406).

Katz (1953) indicated, in comparing survey techniques with field study methods, that field studies provide a greater depth of investigation, thus permitting a more thorough account of the processes under investigation. For this research, a field study was necessitated by the relative inability and impractibility of directly manipulating leadership styles and task-relevant abilities. Certain limitations on the research design were imposed via this
inability to manipulate the independent variables. The field study was the most appropriate design for this investigation. The field study is typically used to examine social or psychological phenomena within organizations, being particularly well suited "for providing an overall picture of the organization and information about the interdependence of its constituent parts" (Blau & Scott, 1962, p. 20). Further support is provided by Bouchard (1976) in his comparison of field studies and laboratory experimental studies. Bouchard (1976) stated:

...laboratory experiments seldom deal adequately with boundary conditions or context factors and, therefore, lend themselves to unjustified and often erroneous extrapolations...Field settings, on the other hand, allow us to explore boundary conditions in ways in which may serve to enhance or delimit laboratory findings and thereby increase our understandings of the various lawful processes under investigation by both types of researchers (p. 364).

The field approach for this investigation was deemed appropriate in that it:

...may enhance the usefulness of scientific theory for applied work and counter erroneous extrapolation and generalization at the theoretical level (Bouchard, 1976, p. 368).

Research hypotheses were developed relating to the three major variables in the study (leadership effectiveness, leadership style and task-relevant ability). Data were collected in this research study of vocational education administrators to determine if:
Leadership Style (Task Behavior)

1. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications of task behavior (S3, S4).

2. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications of task behavior (S1, S2).

Leadership Style (Relationship Behavior)

3. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications of relationship behavior (S1, S4).

4. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or Low Relationship/Low Task (S4) and Directors of all other classifications of relationship behavior (S2, S3).

Task-Relevant Ability

5. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors classified as High Task-Relevant Ability (A4) and Directors of all other classifications of task-relevant ability (A2, A3).
6. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) and Directors of all other classifications of task-relevant ability (A4).

Leadership Style (Task Behavior) and Task-Relevant Ability Interaction

7. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications (S3, S4).

8. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications (S1, S2).

Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction

9. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications (S1, S4).

10. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Task/Low Relationship (S1) or Low Relationship/Low Task (S4) Directors of all other classifications (S2, S3).
Populations

Kerlinger (1964) defined the term population as: "all the members of any well-defined class of people, events or objects" (p. 52). Using Kerlinger's definition as a guide, populations for the present investigation were defined as follows:

1. At the time of the research, there were 50 State Departments of Vocational Education in the United States. Each state department is required to appoint a State Director. All State Directors were solicited to participate in this study. In that sense, and according to Kerlinger's definition, this group of participants comprised one population.

2. In addition, Head State Supervisors of Agricultural Education, Business Education, Marketing & Distributive Education, Home Economics Education and Trade & Industrial Education were solicited to participate in this study. Each group of Head State Supervisors constitute another population: this totals five populations of Head State Supervisors.

Consequently, for data analysis, each of the two participant groups--State Directors and Head State Supervisors--subgroups of Agricultural Education, Business Education, Marketing & Distributive Education, Home Economics Education and Trade & Industrial Education--constitute populations for the study. There were six populations for this study.

A National Center for Research in Vocational Education publication, Directory of Vocational Education Personnel,
provided a current listing of all State Directors and Head State Supervisors. Refer to Appendix M for a complete list by state of participating State Directors of Vocational Education and Head State Supervisors. A demographic profile of these state administrators was completed to determine some respondent characteristics of the population for future research consideration.

Data collection was conducted for a period of seven weeks. Data collection began on April 6, 1982, and ended on May 24, 1982. At the end of approximately the first two-week period on April 29, 1982, a first follow-up letter was mailed to nonrespondents. Two weeks later on May 12, 1982, a second follow-up letter was sent to nonrespondents to encourage survey responses. The initial correspondence cover letter for State Directors appears in Appendix C; initial correspondence cover letter for Head State Supervisors appears in Appendix G. The data sheet for State Directors appears in Appendix D. The models illustrating the most common organizational patterns used by state vocational education agencies in the United States appears in Appendix E. The date sheet for Head State Supervisors appears in Appendix H. Appendix K presents the first follow up cover letter sent to nonrespondents. The second and final follow-up cover letter used to encourage additional responses appears in Appendix L.
Variables

Two classifications of variables were utilized for this study. The dependent variable was leadership effectiveness; the two independent variables were leadership style and task-relevant ability.

Instrumentation

For purposes of obtaining measures of the two independent variables and of the one dependent variable, three separate instruments were used. One instrument determining leadership style of State Directors, the ALTERNATIVE LEADERSHIP STYLES, adapted from Hersey & Blanchard's LEAD-OTHER instrument (1979), was used in a modified form. The other two instruments, LEADERSHIP EFFECTIVENESS APPRAISAL, based on the published work of Yukl & Nemeroff (1979), and the ABILITY TO PERFORM APPRAISAL, adapted from Maturity Scale/Manager Rating Forms, Hambleton, Blanchard, & Hersey (1977), were used in this study. The LEADERSHIP EFFECTIVENESS APPRAISAL instrument measured leadership effectiveness and the ABILITY TO PERFORM APPRAISAL instrument measured subordinate task-relevant ability.
Although both validity and reliability have been established for all instruments, review by a Panel of Experts and a pilot test of research procedures and instruments were conducted to improve the instruments and enhance the data collection process. Specifically, Parten (1950) suggested that a piloting group be selected from outside those to be surveyed in the main study and that the group be as similar as possible to the final sample.

Panel of Experts. A Panel of Experts was asked to judge the clarity, context, item construction and relevance of each item on the instruments. The Panel of Experts reviewed the instruments from March 11, 1982, to March 22, 1982. With this critical analysis, the investigator made appropriate changes in instrument, design and content. Appendix A lists participants of this Panel of Experts; Appendix B presents the cover letter for Panel of experts. Experts were vocational education personnel from The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio.

ALTERNATIVE LEADERSHIP STYLES Instrument. This instrument, based on the works of Hersey and Blanchard, was renamed for this study. It was formerly the LEAD-OTHER (LEADERSHIP EFFECTIVENESS ADAPTABILITY DESCRIPTION-OTHER instrument and the LEADER ADAPTABILITY AND STYLE INVENTORY instrument). This ALTERNATIVE LEADERSHIP STYLES
instrument appears in Appendix I. The instrument was scored using the Directions for Self-Scoring and Analysis (1973), information provided by the Center for Leadership Studies. The instrument consisted of twelve hypothetical situations for which Supervisors chose the most probable action their Director would take from the choices that were listed. Each of the test items consisted of:

1. **Leadership situation**: a two or three sentence description of a unique leadership problem or challenge.

2. **Four alternative actions**: the range of alternatives was designed to reflect each of the four quadrants in the task behavior/relationship behavior model.

Consequently, one alternative reflected Low Task/Low Relationship, another indicated High Task/High Relationship, a third indicated Low Task/High Relationship and the final alternative reflected High Task/Low Relationship.

The Center for Leadership Studies provided data on national research and validity testing of this instrument. Reliability of the instrument was .84; the instrument was endorsed as being research valid.

**ABILITY TO PERFORM APPRAISAL Instrument.** This instrument, adapted from the Maturity Scale/Manpower Rating forms of Hambleton, Blanchard & Hersey 1977, was completed by the State Director for his/her five Head State Supervisors of the traditional service areas. The instrument consisted of nine performance dimensions with
three major responsibilities (managing, planning and budgeting) for each dimension. An eight-point graphic scale was utilized to distinguish levels of supervisor task-relevant ability.

The Center for Leadership Studies provided national research and validity testing of this instrument. The instrument was research valid and had a reliability rating of .81. The ABILITY TO PERFORM APPRAISAL instrument appears in Appendix F.

LEADERSHIP EFFECTIVENESS APPRAISAL Instrument. This instrument, based on the published work of Yukl & Nemeroff 1979, was completed by Head State Supervisors for their State Director. The instrument consisted of nine effectiveness dimensions and definitions. An eight-point graphic scale was utilized to distinguish levels of Director effectiveness.

The Center for Leadership Studies provided data on national research and validity testing of this instrument. Reliability was rated at .83; the instrument was endorsed as being research valid. The LEADERSHIP EFFECTIVENESS APPRAISAL instrument appears in Appendix J.
Data Collection Procedures

The survey method of investigation was employed to collect data using the three instruments. The wording of the cover letter and the subsequent return of the completed instruments served to meet the requirements of "informed consent" governing the participation of human subjects in the study by the Center for Human Subjects at The Ohio State University.

A packet of materials including the appropriate cover letter, instruments and instructions was forwarded to each individual participant. State Directors were sent five ABILITY TO PERFORM APPRAISAL instruments, one to be completed for each Head State Supervisor in the study. Head State Supervisors received a LEADERSHIP EFFECTIVENESS APPRAISAL instrument and an ALTERNATIVE LEADERSHIP STYLES instrument to be completed for their Director.

Analysis of Data

Appropriate statistical procedures were applied to establish the answers to the research hypotheses set forth in this study. The Statistical Analysis System (SAS) (Helwig, 1978) was utilized for the statistical analysis of
these data. Data were analyzed through four statistical applications: two-way analysis of variance, frequency analysis, crosstabulations and means analysis.

**Two-Way Analysis of Variance.** The statistical technique, two-way analysis of variance, was used to determine whether the difference between the two means (leadership style and task-relevant ability) were greater than would be expected by chance happening alone. The SAS subprogram PROC GLM was utilized for two reasons: 1. several subgroups of data contained unbalanced number of observations and; 2. several subgroups of data contained no observations at all.

**Frequency Analysis.** Frequencies were used to summarize the data. Frequency tables depicted the distribution of the values of the variables. Statistics generated included frequencies, cumulative frequencies, percent and cumulative percent. The SAS subprogram utilized to generate this information was PROC FREQ.

**Crosstabulations.** Crosstabulation tables provide in-depth frequency research data for analysis purposes. Crosstabulation tables showed the distribution values for the variables leadership style and task-relevant ability. The PROC FREQ subprogram also produced crosstabulations when the TABLES statement was utilized.
Means Analysis. Other summary statistics were needed for this research. The SAS subprogram MEANS was utilized in data analysis. Statistics generated included: number of observations, number of observations with missing values, mean, standard deviation, minimum and maximum value for each numeric variable, sum of all non-missing values of a variable, variable label, standard error of the mean, sum, variance, and coefficient of variation.

Summary

The purpose of this study was to determine whether the leadership effectiveness (dependent variable) of State Directors of Vocational Education was affected by the degree of congruence between the variables leadership style and task-relevant ability (independent variables). In this chapter, description of the study, research design, populations, variables, instrumentation, collection of data, data collection procedures and analysis of data have been presented. The field study research design was utilized with a population of 300 vocational education state administrators. Research procedures utilized to analysis the data included two-way analysis of variance, frequency analysis, crosstabulations and means analysis.
CHAPTER IV

ANALYSIS OF DATA

Introduction

This research was conducted to determine if leadership effectiveness of State Directors of Vocational Education correlated with the congruence of Directors' leadership style and Head State Supervisors' task-relevant ability. Respondents included State Directors of Vocational Education and Head State Supervisors of the five traditional vocational education service areas. Major research procedures included two-way analysis of variance, frequency analysis, crosstabulations and means analysis. This chapter was subdivided into three subsections: 1. characteristics of respondents; 2. leadership effectiveness; and 3. hypotheses testing. Data were presented in narrative format followed by statistical documentation.
Characteristics of Respondents

Three hundred state administrators of vocational education were mailed survey instruments identifying components of leadership effectiveness, leadership style and task-relevant ability (See Appendices F, I, J). These administrators included 50 State Directors of Vocational Education and 50 Head State Supervisors from each of the following five traditional service areas: Agricultural Education, Business Education, Marketing & Distributive Education, Home Economics Education and Trade & Industrial Education. Two hundred forty-one surveys (80.34 percent) were returned before the deadline for data analysis. Two hundred eighteen (72.67 percent) were usable surveys. Table 1 is a summary of the questionnaire mailing and response activity.

Table 1: Questionnaire Mailing and Response Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Identified in the Populations for this Study</td>
<td>300</td>
</tr>
<tr>
<td>Number of Questionnaires Returned</td>
<td>241</td>
</tr>
<tr>
<td>Number of Usable Questionnaires</td>
<td>218</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Identified in the Populations for this Study</td>
<td>300</td>
<td>100.00</td>
</tr>
<tr>
<td>Number of Questionnaires Returned</td>
<td>241</td>
<td>80.34</td>
</tr>
<tr>
<td>Number of Usable Questionnaires</td>
<td>218</td>
<td>72.67</td>
</tr>
</tbody>
</table>
Table 2 is a summary of the percent of usable responses to the survey. Thirty-seven of the fifty State Directors of Vocational Education provided usable responses.

Table 2: Percent of Usable Responses to the Vocational Education Administrators' Leadership Survey by Respondent Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Returns</th>
<th>Number of Usable Responses</th>
<th>Percent of Usable Responses</th>
<th>Percent of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Directors (n=50)</td>
<td>40</td>
<td>37</td>
<td>74.00</td>
<td>16.97</td>
</tr>
<tr>
<td>Head State Supervisors</td>
<td>201</td>
<td>181</td>
<td>72.04</td>
<td>83.03</td>
</tr>
<tr>
<td>(n=250)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>241</td>
<td>218</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

This was 16.97 percent of the total usable responses. One hundred eighty-one of the two hundred fifty Head State Supervisors provided usable responses. This was 83.03 percent of the total usable responses.

The response rate from the three mailings sent to population members is found in Table 3. The first mailing brought in 162 responses. This was 54 percent of the total population. The second mailing brought in 32 responses
or 10.67 percent of the total population. These two mailings accounted for receiving 64.67 percent of the responses. The third and final mailing brought in 47 responses or 15.67 percent. The total number of responses was 241. The total cumulative percent of returned questionnaires was 80.34 percent.

Table 3: Questionnaire Response Rate

<table>
<thead>
<tr>
<th>Mailing</th>
<th>Number</th>
<th>Percent of Questionnaires Returned</th>
<th>Cumulative Percent of Questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Mailing</td>
<td>162</td>
<td>54.00</td>
<td>54.00</td>
</tr>
<tr>
<td>Second Mailing</td>
<td>32</td>
<td>10.67</td>
<td>64.67</td>
</tr>
<tr>
<td>Third Mailing</td>
<td>47</td>
<td>15.67</td>
<td>80.34</td>
</tr>
<tr>
<td>TOTAL</td>
<td>241</td>
<td>80.34</td>
<td></td>
</tr>
</tbody>
</table>

Vocational education state administrators provided demographic information: current position, age classification, gender, highest educational level achieved, degree major, number of years of work experience in vocational education, number of years in present position, service area in which educated or had primary experience and number of years of work experience in service area. State Directors also provided information on another variable: the model that most exactly describes their state vocational education organizational structure (See Appendix E).
Summary of Respondents by Current Position

Table 4 provides a summary of the current positions held by participants of this study. Of the 218 respondents in this study, approximately 17.00 percent or 37 respondents were State Directors and 83.00 percent or 181 respondents were Head State Supervisors.

Table 4: Summary of Respondents by Current Position

<table>
<thead>
<tr>
<th>Position</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Director</td>
<td>37</td>
<td>17.00</td>
</tr>
<tr>
<td>Head State Supervisor</td>
<td>181</td>
<td>83.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>218</td>
<td>100.00*</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.

Summary of Respondents by Age Classification

In classifying respondents by age, it was discovered that approximately 81.00 percent of State Directors and 62.00 percent of Head State Supervisors were between the ages of 40-59 years. The next highest category for State Directors was approximately 11.00 percent for participants over 60 years of age. Head State Supervisors next highest category was the 30-39 age group with 26.00 percent represented. For State Directors, there were 8.00 percent in the 30-39 age category.
Head State Supervisors represented 11.00 percent in the over 60 years of age category while only 2.00 percent were classified in the 20-29 age bracket. Table 5 presents a summary of respondents by age classification.

Table 5: Summary of Respondents by Age Classification

<table>
<thead>
<tr>
<th>Age Classification</th>
<th>State Directors n</th>
<th>State Directors %</th>
<th>Head State Supervisors n</th>
<th>Head State Supervisors %</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 29 years</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>2.00</td>
</tr>
<tr>
<td>30 - 39 years</td>
<td>3</td>
<td>8.00</td>
<td>47</td>
<td>26.00</td>
</tr>
<tr>
<td>40 - 49 years</td>
<td>18</td>
<td>49.00</td>
<td>63</td>
<td>35.00</td>
</tr>
<tr>
<td>50 - 59 years</td>
<td>12</td>
<td>32.00</td>
<td>49</td>
<td>27.00</td>
</tr>
<tr>
<td>Over 60 years</td>
<td>4</td>
<td>11.00</td>
<td>19</td>
<td>11.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00*</td>
<td>181</td>
<td>100.00*</td>
</tr>
</tbody>
</table>

♦Percentages may not sum to 100 due to rounding.

Summary of Respondents by Gender

Table 6 provides a summary of the gender of the participants in this research. Of the 218 respondents, approximately 8.00 percent of State Directors and 33.00 percent of Head State Supervisors were females. There were approximately 84.00 percent State Directors and 63.00 percent of Head State Supervisors who were males. Three State Directors and eight Head State Supervisors failed to respond to this question on gender.
Table 6: Summary of Respondents by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>State Directors</th>
<th></th>
<th>Head State Supervisors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>8.00</td>
<td>59</td>
<td>33.00</td>
</tr>
<tr>
<td>Male</td>
<td>31</td>
<td>84.00</td>
<td>114</td>
<td>63.00</td>
</tr>
<tr>
<td>Incomplete</td>
<td>3</td>
<td>8.00</td>
<td>8</td>
<td>4.00</td>
</tr>
<tr>
<td>Responses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>37</td>
<td>100.00*</td>
<td>181</td>
<td>100.00*</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.

Summary of Respondents by Highest Educational Level Achieved

In classifying respondents by highest educational level achieved, it was discovered that all State Directors and approximately 93.00 percent of Head State Supervisors had completed at least the masters degree. In addition, approximately 5.00 percent of Head State Supervisors had some graduate work, 2.00 percent had completed the bachelors degree and only 1.00 percent had no degree but career work experience. Twenty-one State Directors or approximately 56.00 percent and 19 Head State Supervisors or 11.00 percent held the doctors degree. Table 7 provides a summary of respondents by highest educational level achieved.
Table 7: Summary of Respondents by Highest Educational Level Achieved

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>State Directors</th>
<th></th>
<th>Head State Supervisors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>No Degree, but Career Experience</td>
<td>0</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>2.00</td>
</tr>
<tr>
<td>Some Graduate Work</td>
<td>0</td>
<td>0.00</td>
<td>9</td>
<td>5.00</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>14</td>
<td>37.00</td>
<td>137</td>
<td>76.00</td>
</tr>
<tr>
<td>Specialist Degree</td>
<td>2</td>
<td>6.00</td>
<td>12</td>
<td>7.00</td>
</tr>
<tr>
<td>Doctors Degree</td>
<td>21</td>
<td>56.00</td>
<td>19</td>
<td>11.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00*</td>
<td>181</td>
<td>100.00*</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.

Summary of Respondents by Degree Major

Table 8 presents a summary of respondents by degree major. Of the 218 total respondents utilized in this study, 217 held bachelors degrees or higher. In analyzing the data, 205 of the possible 217 respondents with degrees had provided their degree major. Responses in the "other" category included: human development, guidance & counseling, and urban development. More than 75 percent of State Directors and 35 percent of the Supervisors had degrees in administration & supervision and vocational education.
Table 8: Summary of Respondents by Degree Major

<table>
<thead>
<tr>
<th>Degree Major</th>
<th>State Directors n</th>
<th>State Directors %</th>
<th>Head State Supervisors n</th>
<th>State Supervisors %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>0</td>
<td>0.00</td>
<td>29</td>
<td>16.00</td>
</tr>
<tr>
<td>Business Education</td>
<td>0</td>
<td>0.00</td>
<td>26</td>
<td>14.00</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>0</td>
<td>0.00</td>
<td>7</td>
<td>4.00</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>0</td>
<td>0.00</td>
<td>27</td>
<td>15.00</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>2</td>
<td>5.00</td>
<td>16</td>
<td>9.00</td>
</tr>
<tr>
<td>Health Occupations Education</td>
<td>1</td>
<td>3.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Technical Education</td>
<td>0</td>
<td>0.00</td>
<td>2</td>
<td>1.00</td>
</tr>
<tr>
<td>Administration &amp; Supervision</td>
<td>14</td>
<td>38.00</td>
<td>21</td>
<td>12.00</td>
</tr>
<tr>
<td>(Education &amp; Business)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Education</td>
<td>15</td>
<td>41.00</td>
<td>27</td>
<td>15.00</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>8.00</td>
<td>16</td>
<td>9.00</td>
</tr>
<tr>
<td>Incomplete Responses</td>
<td>2</td>
<td>5.00</td>
<td>10</td>
<td>6.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00*</td>
<td>181</td>
<td>100.00*</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.
Summary of Respondents by Number of Years of Work Experience in Vocational Education

The distribution of all respondents by years of work experience in vocational education revealed that five respondents or 14.00 percent of State Directors and 23 respondents or 13.00 percent of Head State Supervisors of the total survey group had under ten years of work experience in vocational education. Thirty-two respondents or 86.00 percent of State Directors and 155 respondents or 86.00 percent of Head State Supervisors had over ten years of experience in the field. Table 9 provides a summary of these data.

Table 9: Summary of Respondents by Number of Years of Work Experience in Vocational Education

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>State Directors n</th>
<th>%</th>
<th>Head State Supervisors n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1 year</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>2 - 3 years</td>
<td>0</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>4 - 5 years</td>
<td>1</td>
<td>3.00</td>
<td>8</td>
<td>4.00</td>
</tr>
<tr>
<td>6 -10 years</td>
<td>4</td>
<td>11.00</td>
<td>14</td>
<td>8.00</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>32</td>
<td>86.00</td>
<td>155</td>
<td>86.00</td>
</tr>
<tr>
<td>Incomplete Responses</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>2.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00*</td>
<td>181</td>
<td>100.00*</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.
Summary of Respondents by Number of Years in Present Position

Table 10 provides a summary of the participants by number of years in present position. Eighteen respondents or approximately 49.00 percent of State Directors and 57 respondents or 32.00 percent of Head State Supervisors had 2-5 years of experience in their present position. Fifteen respondents or approximately 41.00 percent of State Directors and 103 respondents or 57.00 percent of Head State Supervisors had six or more years of work experience in their present position. Three Head State Supervisors did not respond to this item.

It is significant to report that approximately 11.00 percent of the State Director respondents and 10.00 percent of the Head State Supervisor respondents had only one year or less of work experience in their present position. This analysis further indicates the importance of providing competent, effective leaders via staff development programs for new state administrators of vocational education.
Table 10: Summary of Respondents by Number of Years in Present Position

<table>
<thead>
<tr>
<th>Number of Years in Present Position</th>
<th>State Directors n</th>
<th>%</th>
<th>Head State Supervisors n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1 year</td>
<td>4</td>
<td>11.00</td>
<td>18</td>
<td>10.00</td>
</tr>
<tr>
<td>2 - 3 years</td>
<td>10</td>
<td>27.00</td>
<td>31</td>
<td>17.00</td>
</tr>
<tr>
<td>4 - 5 years</td>
<td>8</td>
<td>22.00</td>
<td>26</td>
<td>14.00</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>7</td>
<td>19.00</td>
<td>41</td>
<td>23.00</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>8</td>
<td>22.00</td>
<td>62</td>
<td>34.00</td>
</tr>
<tr>
<td>Incomplete Responses</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>2.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00*</td>
<td>181</td>
<td>100.00*</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.

Summary of Respondents by Service Area in Which Educated or Had Primary Experience

The frequency of response by participants concerning service area in which educated or had primary experience is provided in Table 11. This table also includes the percentage of the total that each service area represents. The largest single group was the Trade & Industrial Education service area for State Directors and the Agricultural Education service area for Head State Supervisors. For both respondent groups, the smallest service area group was Health Occupations Education.
Table 11: Summary of Respondents by Service Area in Which Educated or Had Primary Experience

<table>
<thead>
<tr>
<th>Service Area</th>
<th>State Directors n</th>
<th>%</th>
<th>Head State Supervisors n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>8</td>
<td>22.00</td>
<td>42</td>
<td>23.00</td>
</tr>
<tr>
<td>Business Education</td>
<td>2</td>
<td>5.00</td>
<td>35</td>
<td>19.00</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>1</td>
<td>3.00</td>
<td>30</td>
<td>17.00</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>2</td>
<td>5.00</td>
<td>35</td>
<td>19.00</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>14</td>
<td>38.00</td>
<td>29</td>
<td>16.00</td>
</tr>
<tr>
<td>Health Occupations Education</td>
<td>1</td>
<td>3.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Technical Education</td>
<td>6</td>
<td>16.00</td>
<td>6</td>
<td>3.00</td>
</tr>
<tr>
<td>Incomplete Responses</td>
<td>3</td>
<td>8.00</td>
<td>3</td>
<td>2.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00</td>
<td>181</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.

Summary of Respondents by Number of Years of Work Experience in Service Area

The distribution of all respondents by the number of years of work experience in their service area revealed that
10 respondents or 27.00 percent of State Directors and 121 respondents or 67.00 percent of Head State Supervisors had over ten years of experience in their service areas. More than 54.00 percent of State Directors and 82.00 percent of the Head State Supervisors had six or more years of work experience. Table 12 summarizes this data.

Table 12: Summary of Respondents by Number of Years of Work Experience in Service Area

<table>
<thead>
<tr>
<th>Years of Experience in Service Area</th>
<th>State Directors n</th>
<th>%</th>
<th>Head State Supervisors n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1 year</td>
<td>2</td>
<td>5.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>2 - 3 years</td>
<td>5</td>
<td>14.00</td>
<td>12</td>
<td>7.00</td>
</tr>
<tr>
<td>4 - 5 years</td>
<td>10</td>
<td>27.00</td>
<td>17</td>
<td>9.00</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>10</td>
<td>27.00</td>
<td>27</td>
<td>15.00</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>10</td>
<td>27.00</td>
<td>121</td>
<td>67.00</td>
</tr>
<tr>
<td>Incomplete Responses</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>37</strong></td>
<td><strong>100.00</strong></td>
<td><strong>181</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.

Summary of Respondents by Model that Most Exactly Describes State Vocational Education Organizational Structure

The distribution of respondents by model that most exactly describes state vocational education organizational...
structure revealed that 11 respondents or 30.00 percent of State Directors described their state structure as Model IV (See Appendix E). Model IV describes a single State Board of Education and/or State Board of Vocational Education, with a State Chief and Assistant State Chief School Officer and supporting supervisors of special vocational services. Table 13 presents a summary of respondents by model that most exactly describes state vocational education organizational structure. Model V was described by State Directors 24.00 percent of the time; whereas, Model III was described by State Directors 19.00 percent of the time.

Table 13: Summary of Respondents by Model that Most Exactly Describes State Vocational Educational Organizational Structure

<table>
<thead>
<tr>
<th>Model—State Vocational Education Organizational Structure</th>
<th>State Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model I (State Chief School Officer)</td>
<td>3 8.00</td>
</tr>
<tr>
<td>Model II (Single Board, Asst. State Officer)</td>
<td>2 5.00</td>
</tr>
<tr>
<td>Model III (No Area/Services Directors)</td>
<td>7 19.00</td>
</tr>
<tr>
<td>Model IV (Single Board, Special Supervisors)</td>
<td>11 30.00</td>
</tr>
<tr>
<td>Model V (Dual State Boards)</td>
<td>9 24.00</td>
</tr>
<tr>
<td>Model VI (Single Board, Bureau Head)</td>
<td>1 3.00</td>
</tr>
<tr>
<td>Incomplete Responses</td>
<td>4 11.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37 100.00*</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100 due to rounding.
Leadership Effectiveness

This section presents the data relating to the variable leadership effectiveness for purposes of description and data analysis. For the purposes of this research, the LEADERSHIP EFFECTIVENESS APPRAISAL instrument (See Appendix J) was used to tap the leadership effectiveness of State Directors as perceived by their Head State Supervisors. The instrument consisted of nine dimensions that related to the various functions carried out by a State Director in a leadership role. Some dimensions related to relationship behavior on the part of the State Director, while other dimensions related to task behaviors. Head State Supervisors were asked to rate their State Directors on an eight-point graphic scale with four performance indicators. The completed instrument yielded a summed score between nine and 72 points that reflected the Director's relative effectiveness from the perception of the Head State Supervisors. This instrument was based on the published work of Yukl & Nemerooff (1979).

Leadership Style (Task Behavior) and Task-Relevant Ability. The following tables represent statistical documentation on the three major variables of this study. Data are provided on task behavior and task-relevant ability, and evaluated by an analysis of variance. This included scores of leadership effectiveness of the Head State Supervisors of the five traditional service areas of
vocational education. The means and standard errors of leadership effectiveness scores for Head State Supervisors of the five traditional service areas are also provided for leadership style (task behavior) and task-relevant ability.

Table 14 provides analysis of variance data on the scores of Head State Supervisors of Agricultural Education for leadership effectiveness. None of the levels of significance of the specialities exceed the traditionally accepted 0.05 level of significance. There is clearly no effect of leadership style (task behavior) and task-relevant ability on leadership effectiveness for these supervisors.

Table 14: Analysis of Variance: Scores of Head State Supervisors of Agricultural Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>5390.518</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>41.944</td>
<td>1</td>
<td>41.944</td>
<td>0.20</td>
<td>0.6603</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>1.767</td>
<td>1</td>
<td>1.767</td>
<td>0.01</td>
<td>0.9280</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>166.669</td>
<td>1</td>
<td>166.669</td>
<td>0.79</td>
<td>0.3840</td>
</tr>
<tr>
<td>Error</td>
<td>4866.056</td>
<td>23</td>
<td>211.568</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R² = 0.0973
The means and standard errors of leadership effectiveness for scores of Head State Supervisors of Agricultural Education for leadership style and task-relevant ability are provided in Table 15. The leadership style combination of High Relationship/Low Task and/or Low Relationship/Low Task with Moderately Low Task-Relevant Ability and/or Moderately High Task-Relevant Ability had the highest mean score of 58.00.

Table 15: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Agricultural Education for Leadership Style and Task-Relevant Ability Combinations

<table>
<thead>
<tr>
<th>*Leadership Style</th>
<th>**Task-Relevant Ability</th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>9</td>
<td>45.44</td>
<td>6.16</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>15</td>
<td>54.67</td>
<td>3.13</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>1</td>
<td>58.00</td>
<td></td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>2</td>
<td>50.50</td>
<td>6.50</td>
</tr>
</tbody>
</table>

*Leadership Style
1 = High Task/Low Relationship (S1) and/or High Task/High Relationship (S2)
2 = High Relationship/Low Task (S3) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability
1 = Moderately Low or High Task-Relevant Ability (A2, A3)
2 = High Task-Relevant Ability (A4)
Analysis of variance scores for Head State Supervisors of Business Education for leadership effectiveness is provided in Table 16. None of the levels of significance of the specialities exceed the traditionally accepted 0.05 level of significance. There is clearly no effect of leadership style (task behavior) and task-relevant ability on leadership effectiveness for these supervisors.

Table 16: Analysis of Variance: Scores of Head State Supervisors of Business Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>3613.455</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>165.636</td>
<td>1</td>
<td>165.636</td>
<td>0.89</td>
<td>0.3576</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>100.621</td>
<td>1</td>
<td>100.621</td>
<td>0.54</td>
<td>0.4712</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>109.676</td>
<td>1</td>
<td>109.676</td>
<td>0.59</td>
<td>0.4522</td>
</tr>
<tr>
<td>Error</td>
<td>3344.033</td>
<td>18</td>
<td>185.780</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ R^2 = 0.0746 \]
Table 17 provides means and standard errors of leadership effectiveness for scores of Head State Supervisors of Business Education for leadership style and task-relevant ability. The leadership style combination of High Relationship/Low Task and/or Low Relationship/Low Task with High Task-Relevant Ability had the highest mean score of 61.50.

**Table 17: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Business Education for Leadership Style and Task-Relevant Ability Combinations**

<table>
<thead>
<tr>
<th><em>Leadership Style</em></th>
<th><strong>Task-Relevant Ability</strong></th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High) 1 (Moderate)</td>
<td>5</td>
<td>49.40</td>
<td>9.32</td>
<td></td>
</tr>
<tr>
<td>1 (High) 2 (High)</td>
<td>12</td>
<td>49.17</td>
<td>3.42</td>
<td></td>
</tr>
<tr>
<td>2 (Low) 1 (Moderate)</td>
<td>3</td>
<td>50.67</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>2 (Low) 2 (High)</td>
<td>2</td>
<td>61.50</td>
<td>5.50</td>
<td></td>
</tr>
</tbody>
</table>

*Leadership Style*

1 = High Task/Low Relationship (S1) and/or High Task/High Relationship (S2)

2 = High Relationship/Low Task (S3) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability**

1 = Moderately Low or High Task-Relevant Ability (A2, A3)

2 = High Task-Relevant Ability (A4)
Table 18 provides analysis of variance data on the scores of Head State Supervisors of Marketing & Distributive Education for leadership effectiveness. None of the levels of significance of the specialities exceed the traditionally accepted 0.05 level of significance. There is clearly no effect of leadership style (task behavior) and task-relevant ability on leadership effectiveness for these supervisors.

Table 18: Analysis of Variance: Scores of Head State Supervisors of Marketing & Distributive Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>6960.560</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>0.657</td>
<td>1</td>
<td>0.657</td>
<td>0.01</td>
<td>0.9649</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>11.504</td>
<td>1</td>
<td>11.504</td>
<td>0.03</td>
<td>0.8538</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>22.206</td>
<td>1</td>
<td>22.206</td>
<td>0.07</td>
<td>0.7979</td>
</tr>
<tr>
<td>Error</td>
<td>6936.767</td>
<td>21</td>
<td>330.322</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R² = 0.0034
The means and standard errors of leadership effectiveness for scores of Head State Supervisors of Marketing & Distributive Education for leadership style and task-relevant ability are provided in Table 19. The leadership style combination of High Relationship/Low Task and/or Low Relationship/Low Task with High Task-Relevant Ability had the highest mean score of 51.00.

Table 19: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Marketing & Distributive Education for Leadership Style and Task-Relevant Ability Combinations

<table>
<thead>
<tr>
<th>*Leadership Style</th>
<th>**Task-Relevant Ability</th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>6</td>
<td>48.67</td>
<td>3.98</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>15</td>
<td>47.93</td>
<td>5.53</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>2</td>
<td>46.50</td>
<td>3.50</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>2</td>
<td>51.00</td>
<td>3.00</td>
</tr>
</tbody>
</table>

*Leadership Style 1 = High Task/Low Relationship (S1) and/or High Task/High Relationship (S2)

*Leadership Style 2 = High Relationship/Low Task (S3) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability

1 = Moderately Low or High Task-Relevant Ability (A2, A3)

2 = High Task-Relevant Ability (A4)
Analysis of variance scores for Head State Supervisors of Home Economics Education for leadership effectiveness is provided in Table 20. None of the levels of significance of the specialities exceed the traditionally accepted 0.05 level of significance. However, there maybe greater difference in leadership style than in the other variables.

Table 20: Analysis of Variance: Scores of Head State Supervisors of Home Economics Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4553.864</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>489.029</td>
<td>1</td>
<td>489.029</td>
<td>2.72</td>
<td>0.1164</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>51.029</td>
<td>1</td>
<td>51.029</td>
<td>0.28</td>
<td>0.6007</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>178.599</td>
<td>1</td>
<td>178.599</td>
<td>0.99</td>
<td>0.3321</td>
</tr>
<tr>
<td>Error</td>
<td>3235.875</td>
<td>18</td>
<td>179.771</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$R^2 = 0.2894$
Table 21 provides means and standard errors of leadership effectiveness for scores of Head State Supervisors of Home Economics Education for leadership style and task-relevant ability. The leadership style combination of High Task/Low Relationship and/or High Task/High Relationship with High Task-Relevant Ability had the highest mean score of 57.13.


<table>
<thead>
<tr>
<th>*Leadership Style</th>
<th>**Task-Relevant Ability</th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>9</td>
<td>53.33</td>
<td>5.68</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>8</td>
<td>57.13</td>
<td>2.81</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>1</td>
<td>48.00</td>
<td></td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>4</td>
<td>35.50</td>
<td>6.28</td>
</tr>
</tbody>
</table>

*Leadership Style
1 = High Task/Low Relationship (S1) and/or High Task/High Relationship (S2)
2 = High Relationship/Low Task (S3) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability
1 = Moderately Low or High Task-Relevant Ability (A2, A3)
2 = High Task-Relevant Ability (A4)
Table 22 provides analysis of variance data on the scores of Head State Supervisors of Trade & Industrial Education for leadership effectiveness. None of the levels of significance of the specialities exceed the traditionally accepted 0.05 level of significance.

Table 22: Analysis of Variance: Scores of Head State Supervisors of Trade & Industrial Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>3680.950</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>103.641</td>
<td>1</td>
<td>103.641</td>
<td>0.54</td>
<td>0.4747</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>333.822</td>
<td>1</td>
<td>333.822</td>
<td>1.73</td>
<td>0.2074</td>
</tr>
<tr>
<td>Leadership Style by Task-</td>
<td>46.368</td>
<td>1</td>
<td>46.368</td>
<td>0.24</td>
<td>0.6310</td>
</tr>
<tr>
<td>Relevant Ability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>3093.867</td>
<td>16</td>
<td>193.367</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ R^2 = 0.1595 \]
The means and standard errors of leadership effectiveness for scores of Head State Supervisors of Trade & Industrial Education for leadership style and task-relevant ability are provided in Table 23. The leadership style combination of High Relationship/Low Task and/or Low Relationship/Low Task with High Task-Relevant Ability had the highest mean score of 54.67.

Table 23: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Trade & Industrial Education for Leadership Style and Task-Relevant Ability Combinations

<table>
<thead>
<tr>
<th>*Leadership Style</th>
<th>**Task-Relevant Ability</th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>5</td>
<td>40.60</td>
<td>4.27</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>9</td>
<td>53.00</td>
<td>5.78</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>3</td>
<td>49.00</td>
<td>0.58</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>3</td>
<td>54.67</td>
<td>7.31</td>
</tr>
</tbody>
</table>

*Leadership Style 1 = High Task/Low Relationship (S1) and/or High Task/High Relationship (S2)  
2 = High Relationship/Low Task (S3) and/or Low Relationship/Low Task (S4)  

**Task-Relevant Ability 1 = Moderately Low or High Task-Relevant Ability (A2, A3)  
2 = High Task-Relevant Ability (A4)
Leadership Style (Relationship Behavior) and Task-Relevant Ability. The following tables represent statistical documentation on the variables of this study (leadership style, task-relevant ability and leadership effectiveness). Data were provided on leadership style (relationship behavior) and task-relevant ability, and evaluated by an analysis of variance. This included scores of leadership effectiveness of the Head State Supervisors of the five traditional service areas. The means and standard errors for leadership effectiveness scores for Head State Supervisors of the five traditional service areas for leadership style (relationship behavior) and task-relevant ability are also provided.
Table 24 provides analysis of variance data on the scores of Head State Supervisors of Agricultural Education for leadership effectiveness. In the case of this speciality, a level of significance of 0.0065 was judged to indicate a clear difference in leadership style (relationship behavior) than in the other variables. Task-relevant ability may explain a significant amount of the variation.

Table 24: Analysis of Variance: Scores of Head State Supervisors of Agricultural Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>5390.518</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>1413.580</td>
<td>1</td>
<td>1413.580</td>
<td>8.97</td>
<td>0.0065</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>505.338</td>
<td>1</td>
<td>505.338</td>
<td>3.21</td>
<td>0.0864</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>106.469</td>
<td>1</td>
<td>106.469</td>
<td>0.68</td>
<td>0.4194</td>
</tr>
<tr>
<td>Error</td>
<td>3622.644</td>
<td>23</td>
<td>157.506</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$r^2 = 0.3279$
Table 25 provides means and standard errors of leadership effectiveness for scores of Head State Supervisors of Agricultural Education for leadership style and task-relevant ability. The leadership style combination of High Task/High Relationship and/or High Relationship/Low Task with High Task-Relevant Ability had the highest mean score of 57.31.

Table 25: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Agricultural Education for Leadership Style and Task-Relevant Ability Combinations

<table>
<thead>
<tr>
<th>*Leadership Style</th>
<th>**Task-Relevant Ability</th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>8</td>
<td>51.58</td>
<td>5.26</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>13</td>
<td>57.31</td>
<td>2.36</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>2</td>
<td>28.00</td>
<td>15.00</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>4</td>
<td>44.00</td>
<td>7.95</td>
</tr>
</tbody>
</table>

*Leadership Style
1 = High Task/High Relationship (S2) and/or High Relationship/Low Task (S3)
2 = High Task/Low Relationship (S1) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability
1 = Moderately Low or High Task-Relevant Ability (A2, A3)
2 = High Task-Relevant Ability (A4)
Analysis of variance scores for Head State Supervisors of Business Education for leadership effectiveness is provided in Table 26. Here as with the Head State Supervisors of Agricultural Education, leadership style was judged to indicate a clear difference in leadership style (relationship behavior) than in the other variables. The model accounted for 58.97 percent of leadership effectiveness.

Table 26: Analysis of Variance: Scores of Head State Supervisors of Business Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>3613.455</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>2084.340</td>
<td>1</td>
<td>2084.340</td>
<td>25.31</td>
<td>0.0001</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>125.506</td>
<td>1</td>
<td>125.506</td>
<td>1.52</td>
<td>0.2329</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>113.233</td>
<td>1</td>
<td>113.233</td>
<td>1.37</td>
<td>0.2563</td>
</tr>
<tr>
<td>Error</td>
<td>1482.522</td>
<td>18</td>
<td>82.362</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R² = 0.5897
The means and standard errors of leadership effectiveness for scores of Head State Supervisors of Business Education for leadership style and task-relevant ability are provided in Table 27. The leadership style combination of High Relationship/High Task and/or High Relationship/Low Task with High Task-Relevant Ability had the highest mean score of 57.11.

Table 27: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Business Education for Leadership Style and Task-Relevant Ability Combinations

<table>
<thead>
<tr>
<th>Leadership Style</th>
<th><strong>Task-Relevant Ability</strong></th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>6</td>
<td>56.83</td>
<td>3.12</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>9</td>
<td>57.11</td>
<td>2.38</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>2</td>
<td>29.00</td>
<td>12.00</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>5</td>
<td>39.80</td>
<td>4.96</td>
</tr>
</tbody>
</table>

*Leadership Style
1 = High Task/High Relationship (S2) and/or High Relationship/Low Task (S3)
2 = High Task/Low Relationship (S1) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability
1 = Moderately Low or High Task-Relevant Ability (A2, A3)
2 = High Task-Relevant Ability (A4)
Table 28 provides analysis of variance data on the scores of Head State Supervisors of Marketing & Distributive Education for leadership effectiveness. The trend noted in the two previous specialities, presented in Tables 24 and 26, does not occur with the Head State Supervisors of Marketing and Distributive Education. None of the levels of significance of the specialities exceed the traditionally accepted 0.05 level of significance.

Table 28: Analysis of Variance: Scores of Head State Supervisors of Marketing & Distributive Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>6960.560</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>112.197</td>
<td>1</td>
<td>112.197</td>
<td>0.35</td>
<td>0.5605</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>17.460</td>
<td>1</td>
<td>17.460</td>
<td>0.05</td>
<td>0.8177</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>61.794</td>
<td>1</td>
<td>61.794</td>
<td>0.19</td>
<td>0.6651</td>
</tr>
<tr>
<td>Error</td>
<td>6733.386</td>
<td>21</td>
<td>320.637</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$R^2 = 0.0326$
Table 29 provides means and standard errors of leadership effectiveness for scores of Head State Supervisors of Marketing & Distributive Education for leadership style and task-relevant ability. The leadership style combination of High Task/High Relationship and/or High Relationship/Low Task with High Task-Relevant Ability had the highest mean score of 50.31.

Table 29: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Marketing & Distributive Education for Leadership Style and Task-Relevant Ability Combinations

<table>
<thead>
<tr>
<th>*Leadership Style</th>
<th>**Task-Relevant Ability</th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>5</td>
<td>48.60</td>
<td>4.26</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>13</td>
<td>50.31</td>
<td>4.73</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>3</td>
<td>47.33</td>
<td>4.84</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>4</td>
<td>41.75</td>
<td>15.12</td>
</tr>
</tbody>
</table>

*Leadership Style
1 = High Task/High Relationship (S2) and/or High Relationship/Low Task (S3)
2 = High Task/Low Relationship (S1) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability
1 = Moderately Low or High Task-Relevant Ability (A2, A3)
2 = High Task-Relevant Ability (A4)
Analysis of variance scores for Head State Supervisors of Home Economics Education for leadership effectiveness is provided in Table 30. For Head State Supervisors of Home Economics Education, the difference in leadership style clearly emerges. The model accounted for 51.08 percent of leadership effectiveness.

Table 30: Analysis of Variance: Scores of Head State Supervisors of Home Economics Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4553.863</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>2281.105</td>
<td>1</td>
<td>2281.105</td>
<td>18.43</td>
<td>0.0004</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>45.346</td>
<td>1</td>
<td>45.346</td>
<td>0.37</td>
<td>0.5525</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>20.740</td>
<td>1</td>
<td>20.740</td>
<td>0.17</td>
<td>0.6871</td>
</tr>
<tr>
<td>Error</td>
<td>2227.367</td>
<td>18</td>
<td>123.743</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ R^2 = 0.5108 \]
The means and standard errors of leadership effectiveness for scores of Head State Supervisors of Home Economics Education for leadership style and task-relevant ability are provided in Table 31. The leadership style combination of High Task/High Relationship and/or High Relationship/Low Task with Moderately Low Task-Relevant Ability and/or Moderately High Task-Relevant Ability had the highest mean score of 64.00.

**Table 31: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Home Economics Education for Leadership Style and Task-Relevant Ability Combinations**

<table>
<thead>
<tr>
<th><em>Leadership Style</em></th>
<th><strong>Task-Relevant Ability</strong></th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>5</td>
<td>64.00</td>
<td>2.74</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>6</td>
<td>59.17</td>
<td>3.22</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>5</td>
<td>41.60</td>
<td>6.86</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>6</td>
<td>40.67</td>
<td>5.25</td>
</tr>
</tbody>
</table>

**Leadership Style**

1 = High Task/High Relationship (S2) and/or High Relationship/Low Task (S3)

2 = High Task/Low Relationship (S1) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability**

1 = Moderately Low or High Task-Relevant Ability (A2, A3)

2 = High Task-Relevant Ability (A4)
Table 32 provides analysis of variance data on the scores of Head State Supervisors of Trade & Industrial Education for leadership effectiveness. For Head State Supervisors of Trade & Industrial Education, the interaction of leadership style (relationship behavior) with task-relevant ability clearly emerges. There may well be differences in the interaction of leadership style (relationship behavior) with task-relevant ability than in the other variables. The model accounted for 63.32 percent of leadership effectiveness.

Table 32: Analysis of Variance: Scores of Head State Supervisors of Trade & Industrial Education for Leadership Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>Sums and Partial Sums of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>3680.950</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Style</td>
<td>352.044</td>
<td>1</td>
<td>352.044</td>
<td>4.17</td>
<td>0.0579</td>
</tr>
<tr>
<td>Task-Relevant Ability</td>
<td>1.111</td>
<td>1</td>
<td>1.111</td>
<td>0.01</td>
<td>0.9101</td>
</tr>
<tr>
<td>Leadership Style by Task-Relevant Ability</td>
<td>1195.378</td>
<td>1</td>
<td>1195.378</td>
<td>14.17</td>
<td>0.0017</td>
</tr>
<tr>
<td>Error</td>
<td>1350.222</td>
<td>16</td>
<td>84.389</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ R^2 = 0.6332 \]
Table 33 provides means and standard errors of leadership effectiveness for scores of Head State Supervisors of Trade & Industrial Education for leadership style and task-relevant ability. The interaction of High Task/High Relationship and/or High Relationship/Low Task with High Task-Relevant Ability had the highest mean score of 60.44. Figure 11 pictorially displays this interaction.

Table 34: Means and Standard Errors of Leadership Effectiveness: Scores of Head State Supervisors of Trade & Industrial Education for Leadership Style and Task-Relevant Ability Combinations

<table>
<thead>
<tr>
<th>*Leadership Style</th>
<th>**Task-Relevant Ability</th>
<th>n</th>
<th>Mean</th>
<th>S. E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (High)</td>
<td>1 (Moderate)</td>
<td>6</td>
<td>41.67</td>
<td>3.63</td>
</tr>
<tr>
<td>1 (High)</td>
<td>2 (High)</td>
<td>9</td>
<td>60.44</td>
<td>2.82</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>1 (Moderate)</td>
<td>2</td>
<td>50.00</td>
<td>0.01</td>
</tr>
<tr>
<td>2 (Low)</td>
<td>2 (High)</td>
<td>3</td>
<td>32.33</td>
<td>7.97</td>
</tr>
</tbody>
</table>

*Leadership Style
1 = High Task/High Relationship (S2) and/or High Relationship/Low Task (S3)
2 = High Task/Low Relationship (S1) and/or Low Relationship/Low Task (S4)

**Task-Relevant Ability
1 = Moderately Low or High Task-Relevant Ability (A2, A3)
2 = High Task-Relevant Ability (A4)
Figure 11

Interaction of Leadership Style and Task-Relevant Ability
Hypothesis Testing

For this research, ten hypotheses were formulated. The findings of the study foster the following hypotheses observations.

Leadership Style (Task Behavior). Hypotheses 1 and 2 relate to the possible main effect of leadership style (task behavior) on leadership effectiveness:

1. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications of task behavior (S3, S4).

2. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications of task behavior (S1, S2).

A two-way analysis of variance using leadership style (task behavior) as the independent variable and score on the LEADERSHIP EFFECTIVENESS APPRAISAL instrument as the dependent variable yielded the data in Table 34 for these two hypotheses.
Table 34: Leadership Style (Task Behavior) Summary

<table>
<thead>
<tr>
<th>Head State Supervisors</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>0.02</td>
<td>0.6603</td>
</tr>
<tr>
<td>Business Education</td>
<td>0.89</td>
<td>0.3576</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>0.01</td>
<td>0.9649</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>2.72</td>
<td>0.1164</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>0.54</td>
<td>0.4747</td>
</tr>
</tbody>
</table>

These two null hypotheses, therefore, cannot be rejected. These research hypotheses that relate to leadership style (task behavior) are substantiated.

Leadership Style (Relationship Behavior). Hypotheses 3 and 4 relate to the possible main effect of leadership style (relationship behavior) on leadership effectiveness:

3. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications of relationship behavior (S1, S4).

4. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or
Low Relationship (S4) and Directors of all other classifications of relationship behavior (S2, S3).

A two-way analysis of variance using leadership style (relationship behavior) as the independent variable and score on the LEADERSHIP EFFECTIVENESS APPRAISAL instrument as the dependent variable yielded the data in Table 35 for these two hypotheses.

Table 35: Leadership Style (Relationship Behavior) Summary

<table>
<thead>
<tr>
<th>Head State Supervisors</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>8.97</td>
<td>0.0065</td>
</tr>
<tr>
<td>Business Education</td>
<td>25.31</td>
<td>0.0001</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>0.35</td>
<td>0.5605</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>18.43</td>
<td>0.0004</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>4.17</td>
<td>0.0579</td>
</tr>
</tbody>
</table>

For Head State Supervisors of Marketing & Distributive Education and Trade & Industrial Education, this leadership style (relationship behavior) is not significant; these two null hypotheses cannot be rejected. The research hypotheses for these two groups of Head State Supervisors are substantiated. However, for Head State Supervisors of
Agricultural Education, Business Education and Home Economics Education, these hypotheses are rejected.

**Task-Relevant Ability.** Hypotheses 5 and 6 related to the possible main effect of task-relevant ability on leadership effectiveness:

5. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors classified as High Task-Relevant Ability (A4) and Directors of all other classifications of task-relevant ability (A2, A3).

6. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) and Directors of all other classifications of task-relevant ability (A4).

A two-way analysis of variance using task-relevant ability as the independent variable and score on the LEADERSHIP EFFECTIVENESS APPRAISAL instrument as the dependent variable yielded the data in Tables 36 and 37 for these two hypotheses.
### Table 36: Leadership Style (Task Behavior) and Task-Relevant Ability Summary

<table>
<thead>
<tr>
<th>Head State Supervisors</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>0.01</td>
<td>0.9280</td>
</tr>
<tr>
<td>Business Education</td>
<td>0.54</td>
<td>0.4712</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>0.03</td>
<td>0.8538</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>0.28</td>
<td>0.6007</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>1.73</td>
<td>0.2074</td>
</tr>
</tbody>
</table>

### Table 37: Leadership Style (Relationship Behavior) and Task-Relevant Ability Summary

<table>
<thead>
<tr>
<th>Head State Supervisors</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>3.21</td>
<td>0.0864</td>
</tr>
<tr>
<td>Business Education</td>
<td>1.52</td>
<td>0.2329</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>0.05</td>
<td>0.8177</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>0.37</td>
<td>0.5525</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>0.01</td>
<td>0.9101</td>
</tr>
</tbody>
</table>
These two null hypotheses, therefore, cannot be rejected. These research hypotheses that relate to task-relevant ability are substantiated.

**Leadership Style (Task Behavior) and Task-Relevant Ability Interaction.** Hypotheses 7 and 8 relate to the possible interaction of leadership style (task behavior) and task-relevant ability:

7. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications (S3, S4).

8. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications (S1, S2).

A two-way analysis of variance using leadership style (task behavior) and task-relevant ability as the independent variables and score on the LEADERSHIP EFFECTIVENESS APPRAISAL instrument as the dependent variable yielded the data in Table 38 for these two hypotheses.
Table 38: Leadership Style (Task Behavior) and Task-Relevant Ability Interaction Summary

<table>
<thead>
<tr>
<th>Head State Supervisors</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>0.79</td>
<td>0.3840</td>
</tr>
<tr>
<td>Business Education</td>
<td>0.59</td>
<td>0.4522</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>0.07</td>
<td>0.7979</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>0.99</td>
<td>0.3321</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>0.24</td>
<td>0.6310</td>
</tr>
</tbody>
</table>

These two null hypotheses, therefore, cannot be rejected. These research hypotheses that relate to leadership style (task behavior) and task-relevant ability interaction are substantiated.

Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction. Hypotheses 9 and 10 relate to the possible interaction of leadership style (relationship behavior) and task-relevant ability:

9. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications (S1, S4).
10. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Task/Low Relationship (S1) or Low Relationship/Low Task (S4) Directors of all other classifications (S2, S3).

A two-way analysis of variance using leadership style (relationship behavior) and task-relevant ability as independent variables and score on the LEADERSHIP EFFECTIVENESS APPRAISAL instrument as the dependent variable yielded the data in Table 39.

Table 39: Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction Summary

<table>
<thead>
<tr>
<th>Head State Supervisors</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>0.68</td>
<td>0.4194</td>
</tr>
<tr>
<td>Business Education</td>
<td>1.37</td>
<td>0.2563</td>
</tr>
<tr>
<td>Marketing &amp; Distributive Education</td>
<td>0.19</td>
<td>0.6651</td>
</tr>
<tr>
<td>Home Economics Education</td>
<td>0.17</td>
<td>0.6871</td>
</tr>
<tr>
<td>Trade &amp; Industrial Education</td>
<td>14.17</td>
<td>0.0017</td>
</tr>
</tbody>
</table>

For Head State Supervisors of Agricultural Education, Business Education, Marketing & Distributive Education and
Home Economics Education, this leadership style (relationship behavior) and task-relevant ability interaction was not significant; these two null hypotheses cannot be rejected. These research hypotheses for these four groups of Head State Supervisors are substantiated.

However, for Supervisors of Trade & Industrial Education, Hypothesis 9, was rejected ($p=0.0017$). Leadership style, High Task/High Relationship (S2) and/or High Relationship/Low Task (S3) and High Task-Relevant Ability (A4) was the combination that accounted for the interaction with a mean of 60.44. Figure 11 displays this interaction.

Chapter Summary

This chapter has presented the research results in a narrative format followed by statistical documentation. The data have been presented in statistical format for the three variables under investigation (leadership style, task-relevant ability and leadership effectiveness). Ten specific null hypotheses were tested using appropriate statistical procedures. The acceptance or inability to reject the various hypotheses either supported or did not support the major tenets of Hersey & Blanchard's Situational Leadership Theory. This research employed a two by two
factorial research design with leadership style (task behavior and relationship behavior) as one variable and task-relevant ability (moderate ability and high ability) as the other variable.

A brief summary of the significant research findings follows:

1. The respondent groups were both educationally and professionally experienced for their positions as state administrators of vocational education. Educationally speaking, all of the State Directors held at least the masters degree of which 21 Directors held the doctors degree. There was 93.00 percent of Head State Supervisors that held at least the masters degree of which 19 Supervisors held the doctors degree. Professionally speaking, 32 respondents or 86.00 percent of Directors and 86.00 percent of Supervisors had over 10 years of experience in the vocational education profession.

2. Trade & Industrial Education was the largest service area identified by State Directors and Agricultural Education for Supervisors. For both respondent groups, the smallest service area identified was Health Occupations Education.
3. Leadership style was identified by the following Supervisors as being statistically significant in determining leadership effectiveness of State Directors of Vocational Education:

Supervisors of Agricultural Education  \( (p=0.0065) \)
Supervisors of Business Education  \( (p=0.0001) \)
Supervisors of Home Economics Education  \( (p=0.0004) \)

4. The interaction of leadership style (relationship behavior) with task-relevant ability as identified by Head State Supervisors of Trade & Industrial Education was found to be statistically significant in determining leadership effectiveness of State Directors of Vocational Education  \( (p=0.0017) \).
Chapter V includes a summary of the problem, hypotheses of the study, methods of investigation and major research findings. Conclusions drawn from the findings and recommendations are related to both practice and future research.

Summary

Statement of the Problem. The major purpose of this study was to determine whether Head State Supervisors' perceptions of leadership effectiveness of State Directors of Vocational Education co-varied with the congruence between State Director's leadership style and Head State Supervisor's task-relevant ability. In effect, this was an investigation of the adequacy of Hersey & Blanchard's Situational Leadership Theory for selected state-level vocational education administrators.
Hypotheses of the Study. The specific hypotheses of the study were to determine if:

Leadership Style (Task Behavior)

1. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications of task behavior (S3, S4).

2. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications of task behavior (S1, S2).

Leadership Style (Relationship Behavior)

3. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications of relationship behavior (S1, S4).

4. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors classified as either High Task/Low Relationship (S1) or Low Relationship/Low Task (S4) and Directors of all other classifications of relationship behavior (S2, S3).

Task-Relevant Ability

5. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors
classified as High Task-Relevant Ability (A4) and Directors of all other classifications of task-relevant ability (A2, A3).

6. There is no difference in leadership effectiveness scores given by Head State Supervisors between Directors with Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) and Directors of all other classifications of task-relevant ability (A4).

Leadership Style (Task Behavior) and Task-Relevant Ability Interaction

7. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/Low Relationship (S1) or High Task/High Relationship (S2) and Directors of all other classifications (S3, S4).

8. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Relationship/Low Task (S3) or Low Relationship/Low Task (S4) and Directors of all other classifications (S1, S2).

Leadership Style (Relationship Behavior) and Task-Relevant Ability Interaction

9. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as High Task-Relevant Ability (A4) with Directors classified as either High Task/High Relationship (S2) or High Relationship/Low Task (S3) and Directors of all other classifications (S1, S4).

10. There is no difference in leadership effectiveness scores given by Head State Supervisors between Supervisors classified as either Moderately Low Task-Relevant Ability (A2) or Moderately High Task-Relevant Ability (A3) with Directors classified as either High Task/Low Relationship (S1) or Low Relationship/Low Task (S4) Directors of all other classifications (S2, S3).
Method of Investigation

Populations. The study was national in scope. Fifty states in the United States with state vocational education administrators were included in the study. The State Directors of Vocational Education and the Head State Supervisors of Agricultural Education, Business Education, Marketing & Distributive Education, Home Economics Education and Trade & Industrial Education from each of the 50 states (N=300) were solicited for data.

Research Design. The research design for this study was a field study. Data were collected to describe the perceptions of State Directors and Head State Supervisors on three leadership variables: leadership style, leadership effectiveness and task-relevant ability.

The study consisted of one dependent variable, leadership effectiveness, and two independent variables, leadership style and task-relevant ability.

Instrumentation. Three instruments were utilized to collect data. These instruments were:
1. LEADERSHIP EFFECTIVENESS APPRAISAL
   (Based on the published work of Yukl & Nemeroff, 1977) utilized to collect
data on Supervisors' perceptions of
Directors' leadership effectiveness.

2. ALTERNATIVE LEADERSHIP STYLES
   (Adapted from Hersey & Blanchard's LEAD-
   OTHER instrument, 1979) utilized to
collect data on Directors' leadership style.

3. ABILITY TO PERFORM APPRAISAL
   (Adapted from Hambleton, Blanchard &
   Hersey's Maturity Scale/Manpower Rating
   forms, 1977) utilized to collect data on
Supervisors' task-relevant ability.

A data sheet was used to collect characteristic data on
the participants for data analysis.

Data Collection Procedures. Data were collected by
mail survey with 300 questionnaires being mailed to State
Directors of Vocational Education and Head State Supervisors
of the five traditional service areas. Two hundred
forty-one (80.34 percent) surveys were returned; two hundred
eighteen (74.00 percent) were usable surveys returned in
time to be processed and reported in this study. In
addition to the initial mailing, two follow-up mailings were
necessary in order to achieve this rate of return.

Data Analysis. Survey instruments were coded for
computer processing and analysis at the Baker Systems
Engineering Center at The Ohio State University. The
computer program of the Statistical Analysis System (SAS)
(Helwig, 1978) was utilized for data analysis. Information provided on the individual respondent's survey was key-punched on data processing cards. Statistical programs from SAS included: two-way analysis of variance, frequencies, crosstabulations and means analysis.

**Major Research Findings—Characteristics of Respondents**

The 218 respondents to the mail survey represented State Directors and Head State Supervisors of the five traditional service areas from 49 states (See Appendix M: Summary of Participating State Vocational Education Administrators).

**Current Position.** Of the 218 respondents, 37 (17.00 percent) were State Directors and 181 (83.00 percent) were Head State Supervisors.

**Age Classification.** In describing respondents by age classification, it was revealed that 81.00 percent of State Directors and 62.00 percent of Head State Supervisors were between the ages of 40-59 years.

**Gender.** Of the 218 respondents, approximately 8.00 percent of State Directors and 33.00 percent of Head State Supervisors were females. There were approximately 84.00 percent of State Directors and 63.00 percent of Head
State Supervisors who were males. Three State Directors or 8.00 percent and eight Head State Supervisors or 4.00 percent did not respond to this question on gender.

**Highest Educational Level Achieved.** Both populations were highly educated. All State Directors and approximately 93.00 percent of Head State Supervisors had completed at least the masters degree.

**Degree Major.** The two most frequently mentioned degree majors for State Directors were Administration and Supervision (Educational and Business) and Vocational Education. The three most frequently mentioned degree majors for Head State Supervisors were Agricultural Education (16.00 percent), Home Economics Education (15.00 percent) and Business Education (14.00 percent).

**Number of Years of Work Experience in Vocational Education.** Of the 218 respondents, 32 (87.00 percent) of State Directors and 155 (86.00 percent) of Head State Supervisors had over ten years of experience in the field. Five respondents (32.00 percent) of State Directors and 23 respondents (13.00 percent) of Head State Supervisors of the total survey group had under ten years of work experience in vocational education.

**Number of Years in Present Position.** Eighteen respondents or 49.00 percent of State Directors and 57 respondents or 32.00 percent of Head State Supervisors had
2—5 years of experience. Fifteen respondents or 41.00 percent of State Directors and 103 respondents or 57.00 percent of Head State Supervisors had six or more years of experience in their present position.

Service Area in Which Educated or Had Primary Experience. The largest single group was the Trade & Industrial Education service area for State Directors and the Agricultural Education service area for the Head State Supervisors. For both respondent groups, the smallest service area was Health Occupations Education.

Number of Years of Work Experience in Service Area. The distribution for this item revealed that 10 respondents or 27.00 percent of State Directors and 121 respondents or 67.00 percent of Head State Supervisors had over ten years of work experience in their service areas. Over 50.00 percent of State Directors and 82.00 percent of Head State Supervisors had over six years of work experience.

Model that Most Exactly Described State Vocational Education Organizational Structure. In the distribution of respondents by model that most exactly described state vocational education organizational structure, the data revealed that 11 respondents or 30.00 percent of State Directors described state structure as Model IV (See Appendix E).
Major Research Findings—Leadership Effectiveness and Hypothesis Testing

The purpose of this research was to determine whether Head State Supervisors' perceptions of leadership effectiveness of State Directors of Vocational Education co-varied with the congruency between State Director's leadership style and Head State Supervisor's task-relevant ability. Ten null hypotheses based on the possible main effect with a variable (leadership style or task-relevant ability) on leadership effectiveness were stated: four for leadership style from the Supervisors' perception; two for task-relevant ability from the Directors' perception; and four for the possible interaction effect of the two independent variables on leadership effectiveness. It was hypothesized that for each of the four classifications of leadership styles and for each two classifications of task-relevant ability, no significant differences in perceived leader effectiveness would be evident.

A first implied proposition of the Situational Leadership Theory is that, for optimum leadership effectiveness, leadership style must be matched with a subordinate's task-relevant ability. This tenet presupposes that the four leadership styles vary independently with leadership effectiveness. If this tenet were true, it would not be possible from the data to reject any of the four hypotheses.
However, two hypotheses (hypotheses 1 and 2) could be rejected.

The SLT further stated that subordinate task-relevant ability was independent of association with leadership effectiveness. To fully validate the SLT with respect to this proposition, the two null hypotheses relating to task-relevant ability should not be rejected. For all five groups of Head State Supervisors, these conditions were not met. These two null hypotheses could not be rejected from the data. This provided evidence to support this proposition of the SLT.

A third implied proposition of the SLT is that an interaction effect between leadership style and task-relevant ability should be observed by the SLT model. For this to be substantiated, the four stated null hypotheses for all Head State Supervisor groups should be rejected. Two null hypotheses relating to leadership style (task behavior) and task-relevant ability interaction and one null hypothesis relating to leadership style (relationship behavior) and task-relevant ability interaction were not rejected by the data from the Head State Supervisor groups. Only for Head State Supervisors of Trade & Industrial Education, the leadership style
interaction hypothesis was rejected.

The undergirding premise of the SLT is that leadership style results from the adaption of leadership style to subordinate's task-relevant ability. A comparison of the results of testing these research hypotheses does not provide adequate evidence to support the complete SLT model. However, partial support of the SLT's tenets is possible. Support is provided for the tenet that task-relevant ability had no prior or independent relationship to leadership effectiveness. No support, or at least only qualified/partial support, is provided to the theory proposition that leadership style must be matched with task-relevant ability to ensure optimum leadership effectiveness. Further, results of this research do not support the proposition of a significant interaction of leadership style and task-relevant ability. Therefore, in lieu of the foregoing qualifications, the aggregate research data provide only partial support of Hersey & Blanchard's Situational Leadership Theory.

**Conclusions**

Several conclusions were drawn from this research and the review of previous research related to contingency theories of leadership. One conclusion is that all
leadership styles were perceived as being effective at one time or another. This general conclusion supports the major thrust of contingency leadership theories, although solid and conclusive validation of the complete SLT model was not substantiated.

A second conclusion which can be drawn from the research is the tendency for either the High Task/High Relationship (S2) or High Relationship/Low Task (S3) leadership styles to be perceived by Head State Supervisors as the most effective regardless of the task-relevant ability level of the Supervisors. This indicates an inconsistency in the SLT theory.

A third conclusion can be drawn that leadership style (task behavior and relationship behavior) was perceived to be the more reliable indicator of leadership effectiveness than either task-relevant ability or the interaction of leadership style and task-relevant ability. This may be interpreted to mean that this finding was unique to the vocational education state administration environment.

A fourth conclusion which can be drawn is that High Task/High Relationship (S2) and/or High Relationship/Low Task (S3) Leadership Styles (Relationship Behavior) were perceived by Supervisors to be more effective than the High Task/Low Relationship (S1) and/or High Task/High Relationship (S2) Leadership Styles (Task Behavior). This indicates an inconsistency in the SLT Theory.
A fifth conclusion that can be interpreted from this study is that the Leadership Styles (High Relationship Behavior—S2, S3) were perceived to be more effective than the low relationship behavior leadership styles (S1, S4) and/or the task behavior leadership styles. The interpretation of this finding may be isolated to this vocational education state administration environment. However, viewed collectively with the findings of Beck (1978), Trease (1980) and Clark (1981), it can be stated that Hersey and Blanchard's Situational Leadership Theory does not adequately explain this phenomenon.

These conclusions support the imperative of continued leadership research utilizing situational theories of leadership and modifying the theories with subsequent results. This contingency theory research and knowledge utilization process will enhance understanding and development of effective leadership in vocational education administration environments.
Recommendations

In view of the findings and conclusions of this study, the following recommendations seem appropriate:

1. The data reported in this study should be made available to State Directors of Vocational Education and Head State Supervisors of Agricultural Education, Business Education, Marketing & Distributive Education, Home Economics Education and Trade & Industrial Education for further analysis and evaluation relative to staff leadership development. This study suggested that the high relationship behavior leadership style were perceived to be more effective than the low relationship behavior leadership styles and/or the task-relevant ability levels. This awareness could enhance the State Directors' work with supervisory staff.

2. The data should be made available also to appropriate research centers for further analysis and evaluation relative to identifying, developing and advancing state-level leadership in vocational education. This would encourage research to be conducted on this high relationship leadership style to determine the nature of it and how this type of leadership style might be developed in administrators.

3. The data should be made available to university professional staff across the country for further analysis and evaluation relative to staff leadership development programming and new course implementation. Vocational Education leadership programs might make special use of these data.

4. It is recommended that further research be conducted relative to leadership development focusing on other vocational education administrative populations. Research should seek to determine the applicability of these results at a future
date when other populations are not experiencing financial exigency.

5. Further research should focus on the improvement and refinement of instruments and data collection techniques—to devise and validate various leadership instruments that tap the numerous leadership variables in a variety of organizational environments. This would provide for enhanced instrument credibility.

6. Additional research should attempt to design more carefully controlled experiments. This would provide for enhanced precision of leadership research.

7. Attention by present and prospective state administrators of vocational education should be directed to leadership style focusing upon relationship behavior. The research tended to support the notion that this style was perceived to be effective in most situations.

8. Further investigation of the work assignment of state vocational education supervisors seems in order or as a precursor to further research. There was strong evidence that some major responsibilities such as budgeting were not perceived by State Directors to be supervisory tasks.

9. A new model for situational leadership for state administrators of vocational education needs to be developed. The model should incorporate the previous salient leadership research variables that have shown to be research valid and add data from this research to complete the new theory and model.
BIBLIOGRAPHY


Academic Faculty for Vocational-Technical Education. Leadership development in vocational education at The Ohio State University. Columbus: The Ohio State University, 1977.


Bowers, D. C., & Seashore, S. E. Predicting organizational effectiveness with a four-factor theory of leadership, Administrative Science Quarterly, 1966, 9, 238-263.


Case, C. M. Leadership and conjuncture, Sociology and Social Research, 1933, 17, 510-513.


Christner, C. A., & Hemphill, J. K. Leader behavior of B-29 commanders and changes in crew member's attitudes toward the crew, Sociometry, 1955, 18, 82-87.


Evans, M. G. The effects of supervisory behavior on the path-goal relationship, Organizational Behavior and Human Performance, 1970, 5, 277-298.


Frank, L. K. Dilemma of leadership, Psychiatry, 1939, 2, 343-361.


- Managing research and development personnel: An application of leadership theory, Research Management, 1969c, 12, 331-337.


- The management of change: Change and the use of power, Training and Development Journal, 1972a, 26, 6-10.


- Social behavior as exchange, American Journal of Sociology, 1958, 63, 597-606.


_________. Some new applications and tests of the path-goal theory of leadership, Proceedings of the National Behavioral Organizational Conference, 1972.


James, W. Great men, great thoughts and their environment, Atlantic Monthly, 1880, 46, 441-459.


Monge, P. R., & Kirste, K. K. Proximity, location, time and opportunity to communicate. San Jose: California State University, 1975.


Newton, M. Perspectives on professional development, *VOCED*, 1980, 55, 6, 30a-30c.


Osborn, R. M., & Hunt, J. G. An adaptive-reactive theory of leadership: The role of macro variables in leadership...

______. Relations between leadership, size, and subordinate satisfaction in a voluntary organization, Journal of Applied Psychology, 1975b, 60, 730-735.


Person, J. S. Leadership as a response to environment, Educational Record Supplement, 1928, 8, 10-21.


Schneider, J. The cultural situation as a condition for the achievement of fame, American Sociological Review, 1937, 2, 480-941.


Schriesheim, J. F. The social context of leader-behavior subordinate relations: An investigation of the effects


__________. Validity of leadership behavior descriptions, Personnel Psychology, 1969, 22, 153-158.


Weiss, H. M. Subordinate imitation of supervisor behavior: The role of modeling in organizational socialization, Organizational Behavior and Human Performance, 1977, 19, 89-105.


Yukl, G. A. Toward a behavioral theory of leadership, Organizational Behavior and Human Performance, 1971, 6, 414-440.

APPENDIX A:

PANEL OF EXPERTS
Dewey A. Adams,
Professor and Chairperson,
Comprehensive Vocational Education
The Ohio State University
Columbus, OH

Kay Adams,
Research Specialist I
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Roy Butler,
Senior Research Specialist
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Paul Campbell,
Senior Research Specialist
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Dan Fahlander,
Research Specialist II
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Ida Halasz,
Research Specialist I
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Chet Hansen,
Senior Associate Director
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH
Barbara Kline,
Coordinator, Institute Program
The National Academy for Vocational Education
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Art Lee,
Senior Research Specialist
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Mac McCaslin,
Associate Director for
Evaluation and Policy Division
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Floyd McKinney,
Senior Research Specialist
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Donna Mertens,
Research Specialist I
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Mark Newton
Director,
The National Academy for Vocational Education
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH

Ann Nunez,
Research Specialist I
The National Center for
Research in Vocational Education
The Ohio State University
Columbus, OH
APPENDIX B:

COVER LETTER FOR PANEL OF EXPERTS
MEMORANDUM

DATE: March 11, 1982

TO: Panel of Experts

FROM: Debbera A. Diehn

SUBJECT: Review of Dissertation Distribution Materials

Attached is the packet of materials that I am planning to send participants in my study (State Directors and Head State Supervisors of the five traditional service areas). I would appreciate your reviewing these materials from two perspectives:

1. From a critical perspective as to clarity in writing style, process of instrument completion, and inclusion and/or omission of relevant areas or ideas.

2. From a perspective of a State Director of Head State Supervisor who would be receiving these materials, focusing on tone of letters and completion of instruments.

I certainly appreciate you taking the time from your busy schedule to review these materials. If you'd like to share your observations in person, I'll contact you the week of March 22 when I return from a break. Or if you'd prefer, you can simply return materials with your comments sometime before that day.

Again, I appreciate your support in this research effort. Please indicate appropriate title of position here at NCRVE, so that you will be correctly identified in the publication. Thanks so much.

DAD/tam

Enclosures

P.S. Also, enclosed, for your information, is an Executive Summary and Dissertation Diagram explaining my study.
APPENDIX C:
INITIAL CORRESPONDENCE COVER LETTER FOR
STATE DIRECTORS OF VOCATIONAL EDUCATION
April 5, 1982

Dear:

State Directors of Vocational Education are extremely important for effective leadership in program development and advancement. As the chief administrator of vocational education in your state, you can assist with a national study which can contribute to more effective leadership in vocational education.

I am conducting a research study on state-level vocational education leadership under the direction of Dr. Dewey A. Adams, Chairperson for Comprehensive Vocational Education at The Ohio State University. Other members of my research committee include Dr. Robert E. Taylor and Dr. Daniel B. Dunham, both of the National Center for Research in Vocational Education. This study will test one contemporary theory of leadership. It was designed to yield practical information to assist leaders in matching leadership styles and staff ability.

Your participation is vital to the completeness of this study! Acknowledging your busy schedule, the questionnaire was designed to take only 20 minutes of your time. Please complete and return these materials in the stamped, self-addressed envelope that is enclosed for your convenience. Confidentiality and anonymity will be strictly observed. Coding information, appearing on each questionnaire, is necessary for follow-up procedures. If you desire a summary aggregate report of the findings of this study, indicate by checking the box on the questionnaire. Data will be handled only in the aggregate form; no individual, service area or state will be singly identified.

Thank you for your time, consideration and professional assistance. I would appreciate it if you would return the information by April 22, 1982. I hope I can repay your kind consideration through making these aggregate research results helpful to the profession.

Sincerely,

Debbera A. Diehn
Graduate Administrative Associate

Enclosures
APPENDIX D:
DATA SHEET FOR STATE DIRECTORS
A RESEARCH STUDY ON

STATE-LEVEL VOCATIONAL EDUCATION ADMINISTRATION*

Directions. Please provide the information requested by checking the appropriate blank.

1. Current Position. STATE DIRECTOR OF VOCATIONAL EDUCATION.

2. Age.
   ( ) 20-29 years ( ) 40-49 years ( ) Over 60 years
   ( ) 30-39 years ( ) 50-59 years

3. Gender.
   ( ) Male ( ) Female

4. Highest educational level achieved and major field of study (check one).
   ( ) No degree, but career work experience - area: ________________
   ( ) Bachelors degree - major: ____________________________
   ( ) Some graduate work - major: _________________________
   ( ) Masters degree - major: _____________________________
   ( ) Specialist degree - major: __________________________
   ( ) Doctors degree - major: _____________________________

5. Number of years of work experience in vocational education,
   ( ) 0-1 year ( ) 4-5 years ( ) Over 60 years
   ( ) 2-3 years ( ) 6-10 years

*CONFIDENTIALITY AND ANONYMITY WILL BE STRICTLY ASSURED.
6. Number of years in present position.

( ) 0-1 year   ( ) 4-5 years   ( ) Over 10 years

( ) 2-3 years   ( ) 6-10 years

7. Please check the service area in which you were educated or have primary experience (check only one).

( ) Agricultural Education

( ) Business and Office Education

( ) Distributive Education

( ) Home Economics Education

( ) Trade & Industrial Education

( ) Health Occupations Education

( ) Technical Education

8. Numbers of years of work experience in service area checked above.

( ) 0-1 year   ( ) 4-5 years   ( ) Over 10 years

( ) 2-3 years   ( ) 6-10 years

9. Refer to the attached sheet illustrating the most common organizational patterns used by state vocational education agencies in the United States. Please check the Model below that identifies your state.

Model I ____________________  Model II ____________________

Model III ____________________  Model IV ____________________

Model V ____________________  Model VI ____________________
APPENDIX E:
MODELS ILLUSTRATING THE MOST COMMON
ORGANIZATIONAL PATTERNS USED BY
STATE VOCATIONAL EDUCATIONAL AGENCIES IN THE UNITED STATES
GENERALIZED MODELS ILLUSTRATING THE MOST COMMON-ORGANIZATIONAL PATTERNS USED BY STATE VOCATIONAL EDUCATION AGENCIES IN THE UNITED STATES

MODEL I

STATE BOARD OF EDUCATION
STATE BOARD FOR VOCATIONAL EDUCATION

STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.

ASSIST. STATE DIRECTOR OF VOC. ED.

AREA SUPERVISOR SERVICES DIRECTOR

SUPERVISOR OF SPECIAL VOCATIONAL EDUCATION SERVICES

MODEL II

STATE BOARD OF EDUCATION
STATE BOARD FOR VOCATIONAL EDUCATION

STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.

ASSIST. STATE DIRECTOR OF VOC. ED.

AREA SUPERVISOR SERVICES DIRECTOR

SUPERVISOR OF SPECIAL VOCATIONAL EDUCATION SERVICES

MODEL III

STATE BOARD OF EDUCATION
STATE BOARD FOR VOCATIONAL EDUCATION

STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.

ASSIST. STATE DIRECTOR OF VOC. ED.

AREA SUPERVISOR SERVICES DIRECTOR

SUPERVISOR OF SPECIAL VOCATIONAL EDUCATION SERVICES

MODEL IV

STATE BOARD OF EDUCATION
STATE BOARD FOR VOCATIONAL EDUCATION

STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.

ASSIST. STATE DIRECTOR OF VOC. ED.

AREA SUPERVISOR SERVICES DIRECTOR

SUPERVISOR OF SPECIAL VOCATIONAL EDUCATION SERVICES
APPENDIX F:

ABILITY TO PERFORM APPRAISAL INSTRUMENT
ABILITY TO PERFORM APPRAISAL

Purpose
The purpose of this rating form is to help you determine the "ability to perform" levels of your Head State Supervisors of the five traditional service areas in vocational education (Agricultural Education, Business and Office Education, Home Economics Education, Marketing and Distributive Education, and Trade & Industrial Education). "Ability to perform" refers to the combination of psychological willingness and job-related capability.

Since a person's ability to perform will depend upon the particular responsibility, your task will be to provide perceptions of the person's ability in performing each of three job-related responsibilities. These three job-related responsibilities are managing, planning, and budgeting.

Directions
1. Three major responsibilities are listed on the ABILITY TO PERFORM APPRAISAL. (See Example.) For each responsibility, rate each of your supervisors on nine Performance Dimensions by writing the most appropriate number in each box. (See example on reverse side.)

<table>
<thead>
<tr>
<th>High</th>
<th>Moderate</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

--Your ratings ranging from 8 to 1 should be placed under the Major Responsibilities (managing, planning, budgeting).

--Indicators of "High" to "Low" performance for each dimension appear on the form.

--Base your ratings on your observations of the person's behavior.

2. Fill in all blanks in order to provide a complete profile of each supervisor.

CONFIDENTIALITY AND ANONYMITY WILL BE STRICTLY ASSURED.
### ABILITY TO PERFORM APPRAISAL

**EXAMPLE**

<table>
<thead>
<tr>
<th></th>
<th>Has Necessary Job Knowledge</th>
<th>Does Not Have Necessary Knowledge</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. KNOWLEDGE OF JOB</td>
<td></td>
<td></td>
<td>8</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**PERFORMANCE DIMENSIONS**

<table>
<thead>
<tr>
<th>Category</th>
<th>High</th>
<th>Moderate</th>
<th>Low</th>
<th>MAJOR RESPONSIBILITIES</th>
<th>Managing</th>
<th>Planning</th>
<th>Budgeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. KNOWLEDGE OF JOB</td>
<td>8 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. ABILITY TO SOLVE PROBLEMS</td>
<td>8 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ABILITY TO TAKE RESPONSIBILITY</td>
<td>8 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. FOLLOW THROUGH</td>
<td>8 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. MOTIVATION TO ACHIEVE</td>
<td>8 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. COMMITMENT</td>
<td>0 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. PERSISTENCE</td>
<td>0 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. INITIATIVE</td>
<td>8 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. INDEPENDENCE</td>
<td>8 7 6 5</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

☐ Check if you desire summary findings of this research.

*Adapted from Maturity Scale/Performer Rating Form. Copyright 1977, Ronald K. Hambleton, Kenneth H. Blanchard, Paul Hersey.

CONFIDENTIALITY AND ANONYMITY WILL BE STRICTLY ADHERED.
April 5, 1982

Dear:

State Administrators of Vocational Education are extremely important for effective leadership in program development and advancement. As key administrator of a service area in your state, you can assist with a national study which can contribute to more effective leadership in vocational education.

I am conducting a research study on state-level vocational education leadership under the direction of Dr. Dewey A. Adams, Chairperson for Comprehensive Vocational Education at The Ohio State University. Other members of my research committee include Dr. Robert E. Taylor and Dr. Daniel B. Dunham, both of the National Center for Research in Vocational Education. This study will test one contemporary theory of leadership. It was designed to yield practical information to assist leaders in matching leadership styles and staff ability.

Your participation is vital to the completeness of this study! Acknowledging your busy schedule, the questionnaire was designed to take only 20 minutes of your time. Please complete and return these materials in the stamped, self-addressed envelope that is enclosed for your convenience. Confidentiality and anonymity will be strictly observed. Coding information, appearing on each questionnaire is necessary for follow-up procedures. If you desire a summary aggregate report of the findings of this study, indicate by checking the box on the questionnaire. Data will be handled only in the aggregate form; no individual, service area or state will be singly identified.

Thank you for your time, consideration and professional assistance. I would appreciate it if you would return the information by April 22, 1982. I hope I can repay your kind consideration through making these aggregate research results helpful to the profession.

Sincerely,

Debbera A. Diehn
Graduate Administrative Associate

Enclosures
APPENDIX H:

DATA SHEET FOR HEAD STATE SUPERVISORS
Directions. Please provide the information requested by checking the appropriate blank.

   ( ) Agricultural Education
   ( ) Business Education
   ( ) Marketing & Distributive Education
   ( ) Home Economics Education
   ( ) Trade & Industrial Education

2. Age.
   ( ) 20-29   ( ) 40-49   ( ) Over 60
   ( ) 30-39   ( ) 50-59

3. Gender.
   ( ) Male   ( ) Female

4. Highest educational level achieved and major field of study (check only one).
   ( ) no degree, but career experience - area: ___________
   ( ) Bachelors degree - major: __________________________
   ( ) Some graduate work - major: _______________________
   ( ) Masters degree - major: __________________________
   ( ) Specialist degree - major: _________________________
   ( ) Doctors degree - major: ___________________________

*CONFIDENTIALITY AND ANONYMITY WILL BE STRICTLY ASSURED.
5. **Numbers of years of work experience in vocational education.**

( ) 0-1 year   ( ) 4-5 years   ( ) Over 10 years
( ) 2-3 years   ( ) 6-10 years

6. **Number of years in present position.**

( ) 0-1 year   ( ) 4-5 years   ( ) Over 10 years
( ) 2-3 years   ( ) 6-10 years

7. Please check the service area in which you were educated or have primary experience (check only one).

( ) Agricultural Education
( ) Business and Office Education
( ) Distributive Education
( ) Home Economics Education
( ) Trade & Industrial Education
( ) Health Occupations Education
( ) Technical Education

8. **Number of years of work experience in service area checked above.**

( ) 0-1 year   ( ) 4-5 years   ( ) Over 10 years
( ) 2-3 years   ( ) 6-10 years
APPENDIX I:

ALTERNATIVE LEADERSHIP STYLES INSTRUMENT
**STATE**

**SERVICE AREA**

**ALTERNATIVE LEADERSHIP STYLES**

**INSTRUMENT**

**DIRECTIONS.** Assume your State Director is involved in each of the following twelve situations. Each situation has four alternative actions your State Director might initiate. READ each item carefully. THINK about what your State Director would do in each circumstance. Based upon your experience in working with your State Director, CIRCLE which alternative action you think would most closely describe his/her behavior in the particular situation. CIRCLE only one choice. CONFIDENTIALITY AND ANONYMITY WILL BE STRICTLY OBSERVED.

<table>
<thead>
<tr>
<th>SITUATION</th>
<th>ALTERNATIVE ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Staff members are not responding lately to the State Director's friendly conversation and obvious concern for their welfare. Their performance is declining rapidly.</td>
<td>My State Director would...&lt;br&gt; A. emphasise the use of uniform procedures and the necessity for accomplishment&lt;br&gt; B. be available for discussion but would not push his/her involvement&lt;br&gt; C. talk with supervisors and then set goals&lt;br&gt; D. intentionally not intervene&lt;br&gt;</td>
</tr>
<tr>
<td>2. The observable performance of the State Director's staff is improving. The Director has been making sure that all members were aware of their responsibilities and expected standards of performance.</td>
<td>My State Director would...&lt;br&gt; A. engage in friendly interaction, but continue to make sure all members are aware of their responsibilities and expected standards of performance&lt;br&gt; B. take no definite action&lt;br&gt; C. do what could be done to make the staff feel important and involved&lt;br&gt; D. emphasise the importance of deadlines and tasks&lt;br&gt;</td>
</tr>
<tr>
<td>3. The State Director's staff is unable to solve a problem. The Director has normally left the staff alone. Staff performance and interpersonal relations have been good.</td>
<td>My State Director would...&lt;br&gt; A. work with the staff/group and together engage in problem-solving&lt;br&gt; B. let the staff work it out&lt;br&gt; C. act quickly and firmly to correct and redirect&lt;br&gt; D. encourage staff to work on problem and be supportive of their efforts&lt;br&gt;</td>
</tr>
<tr>
<td>4. The State Director is considering a change. The Director's supervisors have a fine record of accomplishment. They respect the need for change.</td>
<td>My State Director would...&lt;br&gt; A. allow staff involvement in developing the change, but would not be too directive&lt;br&gt; B. announce changes and then implement with close supervision&lt;br&gt; C. allow staff to formulate its own direction&lt;br&gt; D. incorporate staff recommendations but direct the change&lt;br&gt;</td>
</tr>
<tr>
<td>5. The performance of the State Director's supervisors has been dropping during the last few months. Subordinates have been unconcerned with meeting objectives. Redefining roles and responsibilities has helped in the past. They have continually needed reminding to have their tasks done on time.</td>
<td>My State Director would...&lt;br&gt; A. allow staff to formulate its own direction&lt;br&gt; B. incorporate group recommendations&lt;br&gt; C. redefine roles and responsibilities and supervise carefully&lt;br&gt; D. allow group involvement in determining roles and responsibilities but would not be too directive&lt;br&gt;</td>
</tr>
<tr>
<td>6. The State Director stepped into an efficiently run organization. The previous administrator tightly controlled the situation. The Director wants to maintain a productive situation, but would like to begin humanizing the environment.</td>
<td>My State Director would...&lt;br&gt; A. do what could be done to make staff feel important and involved&lt;br&gt; B. emphasise the importance of deadlines and tasks&lt;br&gt; C. intentionally not intervene&lt;br&gt; D. get group involved in decision-making but see that objectives are met&lt;br&gt;</td>
</tr>
</tbody>
</table>

CONTINUED ON REVERSE SIDE
My State Director would...
A. define the change and supervise carefully
B. participate with the group in developing the change but allow members to organize the implementation
C. be willing to make changes as recommended, but maintain control of implementation
D. avoid confrontation; leave things alone

My State Director would...
A. leave the group alone
B. discuss the situation with the group and then he/she would initiate necessary changes
C. take steps to direct supervisors toward working in a well-defined manner
D. be supportive in discussing the situation with the group but not too directive

My State Director would...
A. let the group work out its problems
B. incorporate group recommendations, but see that objectives are met
C. redefine goals and supervise carefully
D. allow group involvement in setting goals, but would not push

My State Director would...
A. allow group involvement in redefining standards, but would not take control
B. redefine standards and supervise carefully
C. avoid confrontation by not applying pressure; leave situation alone
D. incorporate group recommendations; but see that new standards are met

My State Director would...
A. take steps to direct supervisors toward working in a well-defined manner
B. involve supervisors in decision-making and reinforce good contributions
C. discuss past performance with group and then examine the need for new practices
D. continue to leave the group alone

My State Director would...
A. try out his/her solution with supervisors and examine the need for new practices
B. allow group members to work it out themselves
C. act quickly and firmly to correct and redirect
D. participate in problem discussion while providing support for supervisors
APPENDIX J:

LEADERSHIP EFFECTIVENESS APPRAISAL INSTRUMENT
LEADERSHIP EFFECTIVENESS APPRAISAL

Purpose

The purpose of this rating form is to help you determine the leadership effectiveness level of your State Director. "Leadership effectiveness" refers to your perceptions of the demonstrated performance of the Director on nine leadership dimensions.

Since a Director's relative effectiveness will vary depending upon what yardstick is being used, your task is to provide perceptions of leadership effectiveness based on personal observations of your State Director.

Directions

1. Read the dimension headings and definitions one at a time.

2. After reading each dimension, rate your State Director's effectiveness by circling the most appropriate number on the 8 to 1 scale. See Example.

   Very Effective Somewhat Effective Somewhat Not Effective Not Effective
   8 7 6 5 4 3 2 1

3. Continue this process with the remaining dimensions.

4. Be sure to circle a rating response for each of the dimensions in order that a complete profile of the Director is provided.

CONFIDENTIALITY AND ANONYMITY WILL BE STRICTLY ASSURED.
LEADERSHIP EFFECTIVENESS APPRAISAL

**Example:**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Defined As</th>
<th>Very Effective</th>
<th>Effective</th>
<th>Inadequate</th>
<th>Not Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Consideration</td>
<td>The extent to which your director is supportive, friendly, and considerate towards staff members, shows you for your efforts, shows trust and appreciation and is open and honest with you.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Innovation</td>
<td>The extent to which your director involves staff members about their duties and job responsibilities, sets goals and establishes performance standards and provides staff members with necessary training and instruction.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Decision Participation</td>
<td>The extent to which your director consults with staff members and otherwise allows you to participate in making decisions, and the amount of influence over the director's decisions that results from this participation.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Emphasis on Productivity</td>
<td>The extent to which your director emphasizes the importance of productivity and efficiency, encourages staff members to attain a high level of performance, checks on your performance and informs you when it is not up to par.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Work Facilitation</td>
<td>The extent to which your director ensures for staff members necessary supplies, materials, equipment, support services or other resources and eliminates problems in the work environment and other obstacles that interfere with the work.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Autonomy - Delegation</td>
<td>The extent to which your director delegates responsibility and authority to staff members and allows them autonomy in determining how to do your work.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Positive Reinforcement</td>
<td>The extent to which your director provides recognition to a staff member, provides recommendations for pay increases and promotions as staff member performance and tries to provide additional rewards and benefits for effective performance.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Interpersonal Facilitation</td>
<td>The extent to which your director emphasizes the importance of teamwork and encourages staff members to cooperate and be friendly with each other.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Conflict Management</td>
<td>The extent to which your director helps staff members settle disagreements, controls you from conflict with each other, and encourages you to resolve conflict in a constructive manner.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the published work of Gary A. Yukl and Henry E. Temrowski, 1976.

Confidentiality and anonymity will be strictly assured.
APPENDIX K:

FIRST FOLLOW-UP LETTER
April 29, 1982

Dear:

You will recall that I corresponded with you on April 6 concerning the study on LEADERSHIP AND TASK-RELEVANT ABILITY OF ADMINISTRATORS IN VOCATIONAL EDUCATION. Overall response has been very encouraging; in fact, I've already achieved a 53% response rate. However, your personal input is needed to provide a complete, accurate appraisal of your state administrators. The goal of this research is to include responses from all 50 states in the final results of the study. Therefore, I would be most grateful if you would take a few minutes from your busy schedule, complete the questionnaire and mail it back in the self-addressed, stamped envelope which was included with the questionnaire.

If this letter and your response have crossed in the mail, please accept my sincere appreciation for your cooperation and professional assistance. Your responses will be analyzed and reported back to you in national statistics. Your anonymity is guaranteed.

It would be most helpful if you could respond by Friday, May 7. I hope to repay a portion of your kindness by becoming an active professional in vocational education following graduation in August. Thank you very much for your consideration.

Sincerely,

Debbera A. Diehn
Graduate Administrative Associate
APPENDIX L:

FINAL FOLLOW-UP COVER LETTER
May 12, 1982

Dear:

The response to my request for assistance with the study on LEADERSHIP AND TASK-RELEVANT ABILITY OF ADMINISTRATORS IN VOCATIONAL EDUCATION has been most gratifying. To date, there has been a 68% response rate from State Directors and a 62% response rate from Head State Supervisors.

Since I have not received a response from you, I fear the questionnaire may have been misplaced or lost in the mail. I have, therefore, enclosed a second copy of the study instrument and a stamped, self-addressed return envelope for your convenience. Your response will be a most welcomed addition to this study.

If this letter and your response have crossed in the mail, please accept my sincere appreciation for your professional assistance and cooperation. Your anonymity is guaranteed.

Thank you for your interest and willingness to assist with this study. I would appreciate receiving your response by Monday, May 24. As soon as the results are analyzed, you will be receiving aggregate national statistics. Thanks again for your consideration.

Sincerely,

Debbera A. Diehn
Graduate Administrative Associate

Enclosures
APPENDIX M:

SUMMARY OF PARTICIPATING

STATE VOCATIONAL EDUCATION ADMINISTRATORS
<table>
<thead>
<tr>
<th>State</th>
<th>State Director</th>
<th>AG</th>
<th>ED</th>
<th>BE</th>
<th>M/DE</th>
<th>HEE</th>
<th>T &amp; I*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Alaska</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Arizona</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Arkansas</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>California</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Colorado</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Connecticut</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Delaware</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Florida</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Georgia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Hawaii</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Idaho</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Illinois</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Indiana</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Iowa</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Kansas</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Kentucky</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Louisiana</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Maine</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Maryland</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>STATE DIRECTOR</td>
<td>AG</td>
<td>ED</td>
<td>BE</td>
<td>M/DE</td>
<td>HEE</td>
<td>T &amp; I*</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>------</td>
<td>-----</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Massachusetts</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michigan</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Minnesota</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mississippi</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Missouri</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Montana</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nebraska</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Nevada</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>New Hampshire</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>New Jersey</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Mexico</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>North Carolina</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Dakota</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ohio</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oklahoma</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oregon</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Rhode Island</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Carolina</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>STATE DIRECTOR</td>
<td>AG ED</td>
<td>BE</td>
<td>M/DE</td>
<td>HEE</td>
<td>T &amp; I*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
<td>----</td>
<td>------</td>
<td>-----</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Dakota</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennessee</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utah</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vermont</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virginia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Virginia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wisconsin</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wyoming</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* AG ED = Agricultural Education  
  BE = Business Education  
  M/DE = Marketing & Distributive Education  
  HEE = Home Economics Education  
  T & I = Trade & Industrial Education