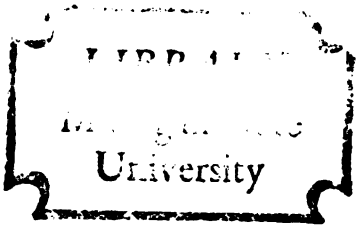
A PHILOSOPHY OF DISTRIBUTIVE EDUCATION - 1974
A COMPARISON OF PHILOSOPHIES HELD BY LEADERS IN 1965 WITH THOSE IN 1974

Dissertation for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY
THOMAS A. DOONAN

1975



This is to certify that the

thesis entitled

A PHILOSOPHY OF DISTRIBUTIVE EDUCATION--1974.
A COMPARISON OF PHILOSOPHIES HELD BY
LEADERS IN 1965 WITH THOSE IN 1974

presented by

Thomas A. Doonan

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Secondary Education and Curriculum

Robert Poland

Major professor

Date May 8, 1975

O-7639

ABSTRACT

A PHILOSOPHY OF DISTRIBUTIVE EDUCATION--1974.
A COMPARISON OF PHILOSOPHIES HELD BY
LEADERS IN 1965 WITH THOSE IN 1974

By

Thomas A. Doonan

The primary purpose of this study was to compare the philosophies held by distributive education personnel in 1965 and the current philosophies held by the same personnel who have remained in their respective job classifications. This was done to achieve a current perspective on the philosophy of distributive education.

The secondary purpose of this study was to compare the philosophies of distributive education personnel in 1965 to the philosophies of (1) personnel in the original group who transferred or shifted job classification and (2) new personnel hired to replace respondents in the original group due to normal attrition between 1965 and 1974. This was done to achieve a current perspective on the philosophy of distributive education.

In addition, a comparison was made between the 1974 Leadership Group and the 1974 New Staff Group to achieve a current perspective on the philosophy of distributive education.

Procedures

The basic tool used in this study consisted of 96 belief statements first formulated in the study developed by Lucy C. Crawford in 1965. These 96 statements were placed in seven categories (Definitions, Objectives, Guidance, Coordination, Curriculum, Organization and Administration and Teacher Education). These statements were mailed to the populations. Included with the 96 statements was an instruction sheet and cover letter. The respondents used the Q-sort method to record their reactions.

The answer sheets were received and the data transcribed into various tables, respective to respondent group. The data was then subjected to various statistical functions (calculated mean, rank, Spearman's rank order, Kendall's W and Chi-square) to test nine hypotheses.

Conclusions

The following conclusions are based on the findings of the analysis of data. These conclusions are an analysis of the inferences drawn from the acceptance or rejection of the nine hypotheses.

1. Null Hypothesis 1 - concerning Definitions. The rejection of this hypothesis by a sizable margin emphasizes that regardless of respondent group, the terminology used in distributive education is agreed upon throughout the 1974 respondent groups as it was with the 1965 Leadership Group.

2. Null Hypothesis 2 - concerning Objectives. This hypothesis was not rejected. The reason for disagreement in this

category was centered around several belief statements which showed quite different rankings from 1965 to 1974. The open-system of education is more readily accepted in the 1974 groups than in the 1965 groups as shown in the ranking of belief statement 27.

3. Null Hypothesis 3 - concering Guidance. This hypothesis was rejected. The four respondent groups agreed on how the role of guidance fits into a distributive education program regardless of respondent groups.

4. Null Hypothesis 4 - concerning Coordination. This hypothesis was rejected. Coordination, even though the hypothesis was rejected, is changing as a facet of the distributive education program. The three 1974 groups showed much agreement among themselves while the 1965 Leadership Group was not in concurrence with the other three groups. The 1965 Leadership group differed in nearly every rank.

5. Null Hypothesis 5 - concerning Curriculum. This hypothesis was rejected. The four groups responding to belief statements on Curriculum have no significant differences regardless of respondent group.

6. Null Hypothesis 6 - concerning Organization and Administration. This hypothesis was rejected. The functions and aims of the leaders in distributive education in 1965 are the same as those questioned in 1974 in the area of Organization and Administration. Mention of the project plan aiding or taking the place of the cooperative plan in statement 67 drew much disagreement.

7. Null Hypothesis 7 - concerning Teacher Education. This hypothesis was rejected. The four respondent groups all agreed that specialized education of the teacher-coordinator is essential in the distributive education program.

8. Null Hypothesis 8 - concerning correlation between the 1965 Leadership Group and the three 1974 respondent groups. This hypothesis was not rejected. The fact that no significant correlation was found in the ranking of belief statements indicates that certain areas of distributive education are changing. This change is not drastic but it is present and illustrates a non-stagnant approach by the respondents to the philosophy of distributive education. More emphasis on the individual namely, preformance objectives and explicit student career goals can be interpreted from the results in Chapter IV.

9. Null Hypothesis 9 - concerning correlation between the 1965 Leadership Group and the 1974 New Staff Group. This hypothesis was rejected. The personnel in distributive education in 1974, whether present in 1965 or added since then, agree on a philosophy of distributive education as it ought to be.

A PHILOSOPHY OF DISTRIBUTIVE EDUCATION--1974.

A COMPARISON OF PHILOSOPHIES HELD BY LEADERS IN 1965 WITH THOSE IN 1974

By

Thomas A. Doonan

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Secondary Education and Curriculum

1975

ACKNOWLEDGMENTS

The author wishes to express his sincere gratitude to the individuals who offered assistance and contributed to the completion of this dissertation.

The author is indebted to Dr. Robert P. Poland, chairman of the doctoral guidance committee and director of this dissertation, for giving generously of his time and assistance, as well as his guidance in the formulation and completion of this study.

Dr. Lawrence Borosage, Dr. Cas F. Heilman and Dr. Zane K. Quible, members of the guidance committee, who provided encouragement and advice throughout the program and the research project.

Gratitude is also expressed to Mr. Richard J. Lindberg who provided direction and assistance in the statistical design of the study and in the analysis of the data.

To my wife, Kathleen, go those words of feeling for her understanding nature and patience, and for her love and words of encouragement without which the entire doctoral program and this dissertation would not have been completed.

A special word of thanks goes to my typist, Miss Debbie Mascia, for her many hours of work.

Finally, I offer my gratitude to my parents for having started me on this path.

TABLE OF CONTENTS

LIST OF TABLES

TABLE Page

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

THE PROBLEM

Introduction

The future of public vocational education is extremely important to the well being of the nation. History shows that vocational education has attempted to provide the nation with working personnel who were vocationally, economically, and socially competent. The future needs for competent workers are increasing and changing. The one segment of vocational education investigated in this study, distributive education, bears special responsibilities for initiating new programs, improving existing programs, and educating qualified personnel for the field of marketing and distribution.

The growing interest in distributive education is emphasized in the following quote by Roy Roberts, "The first half of the twentieth century has been characterized as the age of production, and some persons have suggested that the second half of the century will be remembered for its accent on distribution."[1]

A major challenge for the improvement of the private enterprise system rests with the distribution function. Ketchum, speaking before a group of distributive education leaders, stated:

---

[1]Roy W. Roberts, Vocational and Practical Arts Education (New York: Harper & Row Publishers, 1971), p. 199.

> There are many who do not realize that distribution now represents the largest single segment of our economy, whether measured by income originating in the distribution function, or by the marketing component in retail prices--expressed in terms of either costs or values added.[2]

Education has received a high priority in increasing the efficiency of the distribution process. Better methods of distribution of goods and services and better understanding of consumer needs and wants are goals to which education is expected to contribute. The great number of occupations in marketing and distribution demands a correspondingly great number of educated employees--from the salesperson to the marketing executive.

In the brief history of distributive education thousands of young men and women have been prepared for their careers in the field of marketing and merchandising. In an attempt to evaluate the success of the graduates, Mason[3] conducted a follow-up study of students five years after they had graduated from schools in Illinois. Mason stated that employer opinion indicated superior growth and advancement of distributive education high school graduates when compared to non-distributive education high school graduates. He added that the distributive education graduates were in the top management bracket more often than the non-distributive education

---

[2]Harry W. Ketchum, "Future Opportunities for Distributive Education," paper presented for the Panel of Consultants on Vocational Education, April 29, 1963, p. 4.

[3]Ralph E. Mason, "An Analysis of Related Instruction for Cooperative Part-Time Programs in Distributive Education in Illi (Ph.D. dissertation, University of Illinois, 1971), p. 242.

graduates, indicating that distributive education students were prepared for not only entry position, but for advanced positions in the field of business.

Harris[4] stated that distributive education programs of the future will be developed for all students who have realistic career objectives in the field of marketing and distribution and are able to profit from quality vocational instruction. The current group of professionalized courses will not constitute lifetime approval for professional personnel involved in distributive education. In addition, differentiated pre-service extensive in-service teacher education programs will assist in the preparation of teachers and coordinators for high school, post-secondary, and adult vocational programs.

Seitz[5] described distributive education as "One of the hottest areas of growth in the educational panorama of the day." His justification of the statement was the phenomenal developments of the service areas.

Ketchum,[6] in a study published by the U. S. Department of Commerce, stated:

---

[4]E. Edward Harris, "What's Ahead for D.E.," American Vocational Journal XLVI (January, 1971): 53-55.

[5]James E. Seitz, "The Associate Degree in Business: Some Criteria for Quality," Collegiate News and Views (December, 1968): 5.

[6]Harry W. Ketchum, op. cit., p. 4.

Successful training in distributive education serves three distinct purposes:

1. It makes available an increasing number of better trained men and women for this rapidly growing segment of our economy. This is a highly valuable asset for the business community.

2. It results in a better preparation and matching of the labor force to the work that needs to be done--thus contributing to the economic growth through a more effective utilization of human resources.

3. Most significant, distributive education directly benefits the individual receiving that training, enabling him to live a more useful life and enjoy the psychic and material benefits that results.

Minear[7] predicted that the role which distributive education plays in high school and post-secondary curricula will increase. The challenge to distributive education is to be "with it" in an attack upon the problem of the day. Distributive education needs flexibility to change its structure to meet the needs of the emerging society of the 1970's.

Samson[8] predicted significant changes in business and distributive education during the 1970's. There will be more quantity and quality in educational offerings in the traditional areas of business and marketing. Expanded and innovative curriculum will serve new occupations. There will be emphasis on careful appraisal of potential occupational needs and the planning of appropriate vocational programs.

---

[7]Leon P. Minear, "Business Education Faces the Future," American Vocational Journal XLV, 4 (April, 1970): 70-72.

[8]Harland E. Sampson, "Planning: Advance through and Complete," American Vocational Journal XLVI, 4 (April, 1971): 45-46.

Tate[9] expressed the following concern for the genuine low-ability student:

> Perhaps he is not employable. Perhaps Nichols in his time was right in saying we should abandon him. On the other hand, we may be able to do something for his basic education, forgetting what is defined as meaningful vocational business education, an educational goal beyond his grasp. By correcting his deficiencies in reading, arithmetic, writing, and language we may be opening doors to very simple clerical jobs without asking him to attempt the vocational courses designed for students with adequate ability. Isn't this approach in itself vocational business education for the low-ability student?

Ferguson[10] advised that distributive education coordinators of the seventies assess local manpower needs for the students. "It will be up to each individual coordinator to determine whether his program will meet the challenge of the changing demands and needs of manpower and youth of the 70's.

In describing the emerging structure and content of distributive education, Rowe[11] stated:

> Distributive educators are sensitive to the voices of the business world. Curriculum and content taught in the distributive education classrooms, therefore, reflect current business trends and the concerns of businessmen. Probably ranked highest on their list of concerns is a plea for better understanding of the free-enterprise system and recognition that making a profit is not necessarily bad!

---

[9]Donald J. Tate, "Realistic Vocational Business Education," Journal of Business Education XLVII, 2 (November, 1971): 50-51.

[10]Edward T. Ferguson, "A Challenge for the Distributive Education Program of the 70's," The Balance Sheet LI, 5 (January, 1970): 208-212.

[11]Kenneth L. Rowe, "Improving the Content of Secondary School Distributive Education Program," The Emerging Content and Structure of Business Education, in Eight Yearbook of the National Business Education (Washington, D. C.: Education Association, 1970), p. 231.

> If the American free-enterprise system is to survive, it is essential that young people understand the system and can intelligently respond to economic issues that confront them in the business world.

Governmental, business and education leaders have expressed the challenge and role that distributive education must meet. The distributive education program must commence new offerings of many types--directed toward academically handicapped students seeking preparatory education for the field of distribution, for the average high school student, and for students who seek education beyond high school. The challenge will place increasing demands upon the need for locating and preparing competent and qualified teachers--individuals well prepared and well versed in the field of business who seek satisfaction through working with young people.

Statement of the Problem

The problem in this study is to replicate the Crawford Study by constructing a current philosophy of distributive education through validating a set of basic beliefs concerning definitions, aims and objectives, guidance, coordination, curriculum, administration and teacher education.

Hypotheses to be Tested

To establish a foundation for her study, Lucy C. Crawford, in 1965 polled 172 leaders in distributive education throughout the United States as to their beliefs concerning ninety-six selected statements pertaining to distributive education.

Each of these ninety-six statements is a hypothesis of beliefs that contains seven categories: (1) Definitions, (2) Objectives, (3) Guidance, (4) Coordination, (5) Curriculum, (6) Organization and Administration, and (7) Teacher Education. The poll established a philosophy of distributive education "as it ought to be," and the report, "A Philosophy of Distributive Education" was written.[12]

In replicating the Crawford Study this Study used Chi-square to test the following hypothesis which are stated in the null form:

Ho 1: The rankings of the eighteen statements of basic belief in category one, Definitions, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

Ho 2: The rankings of the eleven statements of basic belief in category two, Objectives, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

Ho 3: The rankings of the fourteen statements of basic belief in category three, Guidance, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

Ho 4: The rankings of the eight statements of basic belief in category four, Coordination, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

---

[12]Lucy C. Crawford, "A Philosophy of Distributive Educa-" tion," A Report of this First Step in the Research Project, A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education, Blacksburg, Virginia, 1967.

Ho 5: The rankings of the eight statements of basic belief in category five, Curriculum, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

Ho 6: The rankings of the twenty-eight statements of basic belief in category six, Organization and Administration, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

Ho 7: The rankings of the nine statements of basic belief in category seven, Teacher Education, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

In addition:

Ho 8: The rank order correlations of reactions by the 1965 Leadership Group are not related when compared pairwise with the reactions of (a) the 1974 Leadership Group (b) the 1974 Job Shift Group and (c) the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient.

Ho 9: The rank order correlations of reactions by the 1974 Leadership Group are not related when compared with the reactions of the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient.

Purpose of the Study

The primary purpose of this study is to compare the philosophies held by distributive education personnel in 1965 and the current philosophies held by the same personnel who have remained in their respective job classifications. This is done to achieve a current perspective on the philosophy of distributive education.

The secondary purpose of this study is to compare the philosophies of distributive education personnel in 1965 to the

philosophies of (1) personnel in the original group who transferred or shifted job classification and (2) new personnel hired to replace respondents in the original group due to normal attrition between 1965 and 1974. This is done to achieve a current perspective on the philosophy of distributive education.

In addition, a comparison is made between the 1974 Leadership Group and the 1974 New Staff Group to achieve a current perspective on the philosophy of distributive education.

Need for the Study

Events in recent years, shaped by emerging socio-economic forces, have caused distributive educators to revamp current programs and to develop creative curricula to adequately meet the vocational needs of the individual.

One part of this challenge is to examine the philosophy of distributive education. A philosophy of distributive education is only a part of larger and more inclusive philosophies. As the researchers in educational administration have pointed out, a philosophy of education and any of its sub-divisions must be consistent with the entire area of social living. Hoving,[13] in The Distribution Revolution, defines America's goal in this way: "The true goal of the American way of life is the creating of a self-educated and spiritually oriented people." "The goals of secondary education, proclaimed in the Seven Cardinal Principles of education and

---

[13]Walter Hoving, The Distribution Revolution (New York: Ives Washburn, Inc., 1960).

redefined in several more recent documents of the American Association of Public School Principals, indicate that education accepts its responsibility in helping individuals to reach the goals of this democracy. Vocational education has been recognized as an important segment of secondary education and has its distinct role to play in furthering the aims of secondary schools. Since distributive education, as a part of vocational education, is an integral part of the total school program, a philosophy of distributive education must be consistent with the goals of this secondary school program, of vocational education and with the ideals of an American Democracy."[14]

Limitations of the Study

The participants of this study were limited to:

1. The population of the same personnel from the 1965 Crawford Study who have remained in their respective job classifications.

2. The population of the same personnel from the 1965 Crawford Study but who have transferred or shifted job classifications.

3. The population of new personnel hired to replace respondents from the 1965 Crawford Study due to normal attrition.

---

[14]Lucy C. Crawford, "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education," a Final Report of Research Project supported by United States Office of Education Grant OE-6-85-044, Vol. 1, 1967.

Definitions of Terms

Before attempting to examine the factors involved in this study, it is necessary to define the following terms:

Chi-Square

A non-parametric technique which may be used to test the difference between the distribution of one sample and some other hypothetical or known distribution is the chi-square (X^2) test. The X^2 test can be used with data measured on nominal or stronger scales. Essentially this procedure involves a "goodness of fit" test wherein the sample frequencies actually falling within certain categories are contrasted with those which might be expected on the basis of the hypothetical distribution. If a marked difference exists between the observed or actual frequencies falling in each category and the frequencies expected to fall in each category on the basis of chance or a previously established distribution, the X^2 test will yield a numerical value large enough to be interpreted as statistically significant.[14]

Distributive Education

> Distributive Education is comprised of programs of occupational instruction in the field of distribution and marketing. These programs are designed to prepare individuals to enter, or progress or improve competencies in, distributive occupations. Emphasis is on the development of attitudes, skills and understanding related to marketing, merchandising, and management. Instruction is offered at the secondary, post-secondary, and adult education levels

---

[14] James Popham, Educational Statistics, Use and Interpretations (New York: Harper and Row, 1967), pp. 270-277.

> and is structured to meet the requirements for gainful employment and entrepreneurship at specified occupational levels. Distributive occupations are found in such areas of economic activity as retail and wholesale trade, finance, insurance, real estate, services and service trades, manufacturing, transportation, utilities, and communications.[15]

Kendall's Coefficient of Concordance ("Kendall's W")

A statistical design used to measure the extent of association among several sets of rankings of N entities. It has special applications in determining the agreement among the four groups of respondents and is particularly useful where there is no objective order of the entities.[16] Kendall's W may take values only between 0 and +1. A coefficient near +1.00 reflects a strong positive relationship, and a coefficient near zero reflects little or no relationship. Kendall's W was used in this study to indicate overall agreement among the four groups of respondents toward the categories of belief.

Level of Confidence

> . . . the criteria for the acceptance or rejection of hypotheses are arbitrary, but a conventional rule draws the line at . . . (probability) equals .05 and regards a hypothesis as inadequate or unsatisfactory for (probability) values . . . smaller than this value.[17]

---

[15]U. S.,Department of Health, Education and Welfare, Office of Education, Vocational Education and Occupations (Washington, D. C.: U. S. Department of Health, Education and Welfare, 1969), p. 19.

[16]Sidney, Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, Inc., 1956), p. 239.

[17]G. Milton Smith, A Simplified Guide to Statistics for Psychology and Education (New York: Rinehart and Company, Inc., 1946), p. 89.

In order to replicate the Crawford Study, the .05 level of confidence was used to test the null hypotheses.

Philosophy

Basic beliefs regarding definitions, aims and objectives, guidance, coordination, curriculum, operation and administration, and teacher education.

Spearman Rank Order Correlation Coefficient (r_s)(rho)

A non-parametric statistical design used to determine the degree of relationship between the ordinally measured varibles. It is used in this study to determine the correlation among the four groups of raters toward the seven categories of basic beliefs.

> The Spearman Coefficient is interpreted in basically the same way as the standard product-moment r, where a coefficient near +1.00 reflects a strong positive relationship, . . . and a coefficient near zero reflects little or no relationship.[18]

The above definition of r for values close to zero and close to ±1 is acceptable. However, we must formulate precise conclusions for intermediate values for r. For these intermediate values the .05 level of confidence is used.

1965 Leadership Group. The personnel who were part of the original Crawford Study in 1965. There were 172 respondents in this group.

---

[18]W. James Popham, Educational Statistics Use and Interpretation (New York: Harper and Rowe, Publishers, 1967), p. 315.

1974 Job Shift Group. The personnel who were part of the 1965 Crawford Study and have transferred or shifted job classifications. There are 23 persons in this group.

1974 New Staff Group. The new personnel hired to replace respondents from the 1965 Crawford Study who left their positions due to normal attrition. There are 97 persons in this group.

Belief Statement. One of ninety-six statements concerning distributive education presented to the respondents in the 1965 Crawford Study to establish a philosophy in distributive education. These statements were drawn from literature and research in distributive and vocational education.

CHAPTER II

REVIEW OF THE LITERATURE

In the review of related research, eleven studies were found which were related in varying degrees to this investigation.

Five studies were related to vocational education, business education and indirectly to their philosophies. They were:

1. J Marshall Hanna, "Confliction Viewpoints in the Field of Secondary-School Business Education (Ed. D. dissertation, New York University, 1939).

2. Carlos K. Hayden, "Major Issues in Business Education" (Ph.D. dissertation, The Ohio State University, 1950).

3. Eleanor B. Brown, "Relationship of Practices in Business Education to Established Objectives" (Ph.D. dissertation, Pennsylvania State University, 1958).

4. Jerre E. Gratz, "Identification and Analysis of the Major Issues in Selected Business Education Subjects of the Public Secondary Schools" (Ed. D. dissertation, University of Houston, 1961).

5. Eva R. Carr, "A Study of the Basic Issues Relating to Philosophy, Purpose, and Curriculum of Vocational Education and their Utilization in the Development of Criteria for Evaluation of Vocational Education Programs" (Ph.D. dissertation, Auburn University, 1970).

Five studies were related directly to distributive education and its philosophy. They were:

6. Roman F. Warmke, "A Study of Current Distributive Education Issues in 1959" (Ph.D. dissertation, University of Minnesota, 1960).

7. Earl E. Harris, "Business Education and Distributive Education Teacher-Coordinators Critical Requirements and Reasoned-Judgment Comparisons" (Ed.D. dissertation, Northern Illinois University, 1965).

8. Bernard C. Nye, "Major Issues in Distributive Teacher Education" (Ph.D. dissertation, The Ohio State University, 1967).

9. Barry L. Reece, "Adult Distributive Education Issues" (Ed.D. dissertation, University of Nebraska, 1971).

10. John W. Weatherford, "Identification and Analysis of the Current Issues in Distributive Education" (Ph.D. dissertation, The Ohio University, 1972).

Finally, the Lucy C. Crawford Study of 1965, which this study replicated, was reviewed.

11. Lucy C. Crawford, "A Philosophy of Distributive Education," A Report of the First Step in the Research Project, "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education," Final Report of Research Project supported by United States Office of Education Grant OE-6-85-044, Vol. I, 1967.

Studies Related to Vocational Education, Business Education and Indirectly to their Philosophies

The J Marshall Hanna Study, 1939

Hanna's study, which included a section on distributive education, determined the major issues in business education by making a careful review of business education literature published from 1928 to 1939 and by interviewing recognized leaders in various subject-matter fields. The issues were evaluated and criticized by graduate students, by leaders in business education, and by business educators, all of whom were encouraged to add to or change the wording of the questions, if advisable. The business educators were

also asked to rank the issues. A satisfactory trial run of seven issues submitted to fifteen carefully selected leaders provided the basis for the final check of major issues. Only those business educators who were named by ten or more of the 156 teachers who completed the leadership questionnaire were acknowledged as leaders in business education. In this manner, seventy business educators were recognized as leaders in business education.

Hanna classified the 52 fundamental issues into 4 groups based on the opinions expressed by 58 leaders in business education: Group A, 10 regulative principles or philosophies which more than 90 percent of the leaders agreed; Group B, 22 regulative principles with 67 to 89 percent agreement; Group C, 7 issues, each having one contention receiving 50 to 67 percent agreement; Group D, 13 issues, no contention receiving 50 to 67 percent agreement, indicating that because of a lack of agreement that no trend was apparent.

The Carlos K. Hayden Study, 1950

Hayden completed a follow-up of the Hanna study in 1950; his study, like Hanna's, contained a section on distributive education.

For the purpose of this study, a leader in business education was a person who had been recognized by his fellow business teachers as a leader. In order to determine the leaders, a check sheet was submitted to 275 business teachers. These business teachers were asked to list business educators to whom they looked for leadership in the administration of business education, bookkeeping

and related subjects, distributive education, general business, office and clerical practice, shorthand and transcription, and typewriting. The respondents were distributed geographically throughout the United States and represented a sampling as to subject matter interest, institutional organization, and type of position held. On the basis of the replies from 192 respondents, a list of leaders in each of the areas of specialization was compiled for use in the investigation.

The issues included in the survey were obtained using the following methods: (1) by a survey of periodicals, books, yearbooks, and research studies; (2) through a discussion of the problems and beliefs in business education with fellow business teachers; (3) from panels and round table discussions at conventions; and (4) from selected leaders in business education.

By comparing the findings of his study with Hanna's study, Hyden determined trends of thought and philosophies with reference to the issues in business education.

Hayden found almost complete agreement (more than 90 percent) on 14 issues. A substantial majority (from 67 to 89 percent) of the leaders tended toward agreement on 19 of the issues. The majority (from 50 to 66 percent) of the respondents tended toward agreement on 13 of the issues. Seven of the issues were found to be highly controversial.

The Eleanor B. Brown Study, 1958

Like Hayden and Hanna, Eleanor B. Brown included a distributive education section in her study. As a part of her study, Brown re-submitted Hayden's issue statements to a group of business educators. Consequently, she used the identical issue statements used by Hayden.

Brown prepared a check sheet of Hayden's sixty-eight major issues and submitted the form to 219 business education leaders in 1957, requesting them to give their opinions on each issue. The leaders had been carefully selected on the basis of a thorough examination of the literature.

Brown established the philosophies and objectives of business education from 1950 to 1957, determined the practices from 1950 to 1957 in the light of these philosophies and objectives, determined the relationship between philosophies and objectives, and made recommendations based on the findings. The Chi-square (X^2) was used to compare the responses she obtained from the leaders in 1957 with response obtained by Hayden in 1950. By the use of the t-test, she considered 56 percent agreement of the 1957 leaders on a principle underlying a major issue as a sufficient basis for deriving business education objectives. By using this procedure, she established forty-eight objectives.

To determine relationship of practices in business education to established objectives and philosophies, Brown reviewed thirteen statewide doctoral studies to interpret practices. She then

compared the practices to the established objectives and philosophies in terms of close, substantial, occasional, remote, and none. The 1957 leaders were in agreement with the 1950 leaders on all but four statements.

The Jerre Eugene Gratz Study, 1961

The major topics in business education for the Gratz study were defined primarily by a review of the business education literature from 1950 to 1960, by discussions with business educators, by conference, panels, seminars, and round-table discussions at conventions, and by personal interviews with selected leaders in business education. These topics were limited to those that seemed to be the most important in shaping policies and practices (philosophies) of business education. Selected business education leaders were then used in the jury technique of refining, clarifying, and supplementing the issue.

The business education leaders were selected by using a mailed questionnaire to 250 public secondary school business teachers throughout the United States. A total of 186 (74.4 percent) of the questionnaires were returned. From this tabulation emerged 40 business education leaders who were used as respondents to the issues. Twenty (50 percent) were interviewed personally, and 20 (50 percent) were mailed questionnaires. Thirty-eight (95 percent) of the business education leaders responded to the issues. These responses were tabulated to determine the extent to which the issues involved were controversial.

This study was compared with the similar studies of J Marshall Hanna (1939) and Carlos K. Hayden (1950) to determine the trends of thought over the past two decades.

Eva R. Carr, 1970

The purpose of the Carr study was two-fold. The first purpose was to identify several basic issues regarding the philosophy, purpose, and curriculum of vocational education. The second purpose was to develop statements of criteria related to the identified issues that were perceived to be valid and appropriate for use as a basis of evaluating vocational education programs in terms of philosophy, purpose, and curriculum.

Six basic issues were identified through a study of related literature. Eighteen statements were identified as appropriate statements to form the basis of evaluation instruments in the evaluation of philosophy, purpose, and curriculum of vocational education. This was accomplished through the use of a Q-sort technique utilizing opinions of an accredited jury.

Based on findings which verified the belief that there is basic agreement as to what are the basic issues in vocational education and that evaluative criteria statements based on identified issues can be developed from opinions of experts, conclusions were drawn and recommendations made. They were:

A. Vocational education should be as concerned with the needs of people as with the needs of the labor market.

B. The curriculum of vocational education programs should be broad in nature to prepare individuals for clusters or families of occupations.

C. Vocational education should be an integral part of a comprehensive educational program, rather than be separated from other phases of education.

Studies Related Directly to Distributive Education and its Philosophy

The Roman F. Warmke Study, 1960

Roman F. Warmke conducted the only study up to 1960 on general issues in distributive education. The purpose of his study was to analyze the opinions of distributive education leaders concerning current distributive education issues and to ascertain their opinions on the importance of these items in determining effective operating procedures and beliefs (philosophies) in distributive education.

Interviews were conducted with eight distributive education educators, who were asked to suggest issues. Other means used to identify these items were: (1) literature review; (2) interviews with distributive education educators (as above); (3) an analysis of reasons for certain school administrators discontinuing distributive education programs, and (4) an analysis of opinions of merchants about distributive education.

Warmke defined leadership as "recognition by fellow workers," and two groups of persons were selected to nominate leaders. One group was composed of United States Office of Education personnel, state distributive education personnel, and distributive

education teacher educators. The second group consisted of teacher-coordinators who were recommended by the state supervisors and teacher educators. Those recommended were considered to be operating superior distributive education programs.

The leadership questionnaire was sent to the teacher-coordinators whose names were listed by the state supervisory personnel and the teacher educators. The nominations from this group served to show the validity of the nomination submitted by the supervisory personnel.

Warmke's check sheet was divided into two sections, and each section was conducted separately. Part I of the check sheet was devoted exclusively to issues about minimum requirements for distributive education personnel. Ten minimum requirements for eight distributive education positions were analyzed.

Part II of the issues check sheet was divided into four sections: (1) Objectives, Guidance and Philosophy; (2) Organization and Administration; (3) Curriculum and Related Issues; and (4) Steering and Advisory Committees.

These were a total of sixty-two issue statements dealing with the above sections. The respondents were given the privilege of writing "no opinion" across the issue statement if they did not have an opinion about the issue.

The respondent was asked to indicate the importance of each of the issue statements. The choices given were (1) crucial, (2) major, and (3) little or no.

Almost all (90 percent or more) of the distributive educators who responded to the issue statement were in agreement on 8 statements. A considerable majority (from 67 to 89 percent) of the respondents tended toward agreement in 18 statements. The distributive educators were divided in opinion on 23 of the issue statements and there was a complete lack of agreement on 13 of the issue statements.

The Earl Harris Study, 1965

One of the purposes of the Harris study was to determine the relationship of the reasoned-judgment reactions of office education and distributive education teacher-coordinators, concerning selected issues regarding the operation of the secondary school cooperative programs, to the teacher-coordinator, program, and community characteristics.

An adaptation of the "critical incident technique" was utilized to determine the critical requirements for the job activities of experienced Illinois office education and distributive education teacher-coordinators. The reasoned-judgment reaction questions were used to ascertain and compare the philosophy of the Illinois office education and distributive education teachers regarding selected issues with the responses of distributive education national leaders in 1959 relative to the operation of secondary school cooperative programs.

An analysis and classifications of the critical incidents resulted in the formulation of eight major categories of job

activities for secondary school office education and distributive education teacher-coordinators: (1) discipline and control of students; (2) selection of training station and replacement activities; (3) evaluation and selection of students; (4) personal and professional relationships; (5) adjusting student training station perfromance problems (employer suggested); (6) adjusting student problems (student suggested); (7) direction of in-school learning activities; and (8) development of promotion of program.

Utilizing the Chi-square statistic, significant differences were found in the pattern of behavior for distributive education teacher-coordinators when compared with the factors of educational preparation, years of experience as coordinators, years of experience of coordinators in their present schools, length of teaching contract, and population of the school district where the teacher-coordinator was employed. No statistically significant differences were found in the patterns of behavior for office education teacher-coordinators; however, the interaction of effective and ineffective behaviors with teacher-coordinators, program, and community factors tended proportionately to favor the coordinators with more experience and educational preparation--a relationship which was also evident in the analysis of distributive education coordinator behaviors. A total of sixty-one critical requirements was delineated for the distributive education coordinator and sixteen for office education teacher-coordinators. The Illinois office education and distributive education teacher-coordinator groups were in closer

agreement with each other than either group was with the national leaders of distributive education in 1959 in their responses to a majority of the selected topics concerning the operation of the secondary school cooperative programs.

The Bernard C. Nye Study, 1967

The purposes of Nye's study were: (1) to determine the issues relating to distributive teacher education; (2) to determine the major issues relating to teacher education as expressed by distributive education leaders and educational personnel involved in the operation of the distributive teacher education program, and (3) to determine the opinions or philosophies of leaders in distributive education with respect to the major issues.

The issues identified in the Nye study were obtained by: (1) review of the literature; (2) discussions with distributive educators, (3) discussions heard, as well as conducted, at professional distributive education meetings.

Of the nine persons with whom discussions were held, three were state supervisors, five were teacher educators, and one was a research specialist in distributive education. Thirty-six issues were selected as the most current by the recognized leaders in distributive education; these were presented to the respondents.

In the Nye study, no issue could be acknowledged as being the current most important issue in distributive teacher education; however, thirty-six initial issues were selected as important by the

committee of nine distributive educators participating in the discussion and development of the initial list of issues. The selection of the issues was made on the basis of personal belief and interest in the issue.

Of the thirty-six initial issues identified in the study, eleven indicated that over 80 percent of the respondents were in agreement on the statement. Three other issues indicated that over 70 percent, but less than 80 percent of the respondents were in agreement; however, a considerable percentage of the respondents indicated their uncertainty in relation to the statement. Eight of the issues indicated that there were definite divergent points of view among the respondents as shown by percentages of positive and negative reactions; however, no specific issue could be considered the most important one in distributive teacher education. The responses given on the remaining fourteen issues indicated that a large percentage of the respondents were uncertain, giving the implication that there are divergent points of view and that these issues may also be major issues involved in distributive teacher education.

The study was limited to opinions secured from four selected groups of respondents who had the responsibility for the operation of distributive teacher education programs. These included state supervisors of distributive education, directors of vocational education in state departments of education, distributive teacher educators, and heads of divisions of the colleges within certain universities having a distributive teacher education program. A

total of eighty-four questionnaires was mailed to the four groups of respondents in twenty-one states with sixty-six responses and the data analyzed.

The conflicting points of view among the respondents indicate that additional thought should be given to the contractual agreements between state departments of education and institutions of higher learning for the development and operation of a distributive teacher education program. Positive agreement is needed as to the specific functions of the teacher education program and the duties and responsibilities to be assumed by the teacher educator. The respondents disagreed as to who has the responsibility for determining professional certification requirements and work experience requirements for teacher-coordinators, as well as to who should have the final authority to designate certification approval for teacher-coordinators.

The Barry L. Reece Study, 1971

Reece's study is specifically related to the issues in adult distributive education.

The purposes of Reece's study were to identify the major issues in adult distributive education and to ascertain their opinions and philosophies of distributive education leaders toward these issues.

Two principal methods were employed to identify the major issues. The first step involved a review of the literature from

1960 to 1968. From this procedure, seventy-seven tentative issue statements were identified. The second step involved a variation of Q-methodology. The tentative issue statements were printed on three-inch by five-inch cards to form an "Issues" card-sort. This card-sort was submitted to a jury of eight distributive educators.

Forty-two issue statements were identified and listed in multiple-choice form on a check sheet. The issues were divided into four categories: (1) objectives and philosophy, (2) organization and administration, (3) curriculum and related issues, and (4) adult distributive educational instructional staff. The check sheet was sent to the state supervisor of distributive education in each of the fifty states and one teacher educator responsible for distributive education in each of forty-two states. Ninety percent of the check sheets submitted were returned in usable form.

The respondents were also asked to report the importance of each of the issues. Of the 42 issues, there was almost complete agreement (90 percent or more) on 11 issues, indicating that the statement might be considered as principles. A great majority of the respondents (67 to 89 percent) agreed upon 18 of the issues, indicating that these statements might also be considered as principles. There was majority agreement (50 to 66 percent) on 7 issues. In this case, statements indicate a trend in favor of one contention. There was a lack of agreement (49 percent or less) on 6 issues.

Some of the major conclusions were these: (1) Teacher education should provide students majoring in distributive education

with instruction in planning, organizing, and promoting adult education programs. (2) The teaching contract which exists between the teacher-coordinator and the local school system should specify responsibility in the area of adult distributive education. (3) In communities served by high school, post-secondary, and adult programs, joint curriculum planning should be undertaken. (5) A specialist in adult distributive education should be employed by the institution responsible for teacher education, or by the state department of public instruction, to assist with adult program development throughout the state.

John W. Weatherford, 1972

The purpose of the Weatherford study was to analyze the opinions of distributive education leaders about issues in distributive education and to ascertain their opinions on the importance of these issues in determining effective operating procedures or philosophies in distributive education. To achieve the purpose of this study, it was necessary to (1) identify current distributive education issues and (2) to identify distributive education leaders.

The distributive education issues used in this study were identified by (1) a literature review and (2) interviews with distributive educators.

Interviews were conducted with eighteen distributive educators, at which time they were asked to suggest issues in distributive education.

After the issues had been identified, they were organized into a tentative check sheet.

Leadership was defined as "recognition by fellow workers," and it was in this sense that the term "leaders" was used in this study. In order to apply this test of leadership, four groups of persons were selected to nominate leaders. The four groups consisted of (1) distributive education teacher educators, (2) distributive education head state supervisors, (3) distributive education teacher-coordinators, and (4) United States Office of Education personnel.

After the leaders had been selected, a pilot study was made. The tentative check sheet of issues was evaluated by two groups of distributive education personnel. The first part was conducted with a selected group of distributive education teacher educators and state department personnel. The second part was conducted in Washington, D. C., while the author attended a national DECA committee meeting. Fifteen persons representing all sections of the United States participated in the pilot study. The final check sheet was prepared by incorporating into the check sheet the comments of the pilot group.

The final form of the check sheet was then submitted to the total group of distributive educators identified as leaders and who were selected to participate in the study. Of the thirty leaders used in the study, seventeen had responded within two weeks. A follow-up letter was sent to the thirteen who had not responded. Nine responses were received during the next two weeks. A telephone follow-up was used on the remaining four, and all were returned.

The leaders' opinions concerning the issues and the importance of the issues were then tabulated and analyzed. The leaders were given an opportunity to make any comments about the issues and these comments were recorded.

On the basis of the findings there was agreement on 19 statements which could be considered principles (or philosophies) of distributive education. In addition, there was a lack of agreement on 13 statements which could then be considered major issues in distributive education.

The Lucy C. Crawford Study, "A Philosophy of Distributive Education."

The Lucy C. Crawford Study, 1965

In 1965, 172 leaders in distributive education throughout the United States were polled as to their beliefs concerning ninety-six selected statements pertaining to distributive education. Each of these ninety-six statements is a hypothesis of beliefs that contains seven categories: (1) Definitions, (2) Objectives, (3) Guidance, (4) Coordination, (5) Curriculum, (6) Organization and Administration, and (7) Teacher Education. The poll established a philosophy of distributive education "as it ought to be," and the report, "A Philosophy of Distributive Education was written by Lucy C. Crawford.

Crawford outlined her study as follows:

> A variation of Q-methodology was used to provide a basis for constructing a philosophy of distributive education to serve as a theoretical foundation for this study. A universe

of statements of basic beliefs was formulated and tested in the form of a card-sort.

Statements of basic beliefs were drawn from the literature and research in distributive education and vocational education; from speeches at national clinics and professional meetings; from conferences with selected leaders, including distributive education specialists in the United States Office of Education; and from personal experience of the investigator. These statements were mailed in the form of a questionnaire to a Committee of Consultants composed of four experts in distributive education, a specialist in distributive education from the United States Office of Education, a state director of vocational education, a merchant, and a school administrator. For Committee consideration, the beliefs were organized into categories (definitions, aims and objectives, guidance, coordination, curriculum, administration, and teacher education). The members of the Committee reviewed the statements in terms of clarity, scope, and soundness. They also added any statements they felt were needed to make a list comprehensive.

A questionnaire composed of a universe of statements concerning purposes and practices of vocational education was also mailed to the Committee of Consultants for their reactions. Since distributive education functions as an integral part of vocational education, it was assumed that the basic beliefs would be consistent with the purposes and practices of vocational education. A tentative list of purposes and practices of vocational education was developed by H. W. Sanders, former head of the Vocational Education Department at V.P.I., from twenty-six pieces of literature, with special attention to current literature.

At a meeting of the Committee of Consultants held in Blacksburg, Virginia, in September 1965, the revised statements of basic beliefs concerning distributive education were carefully considered. At this time the Committee also selected the most important purposes and practices of vocational education from the universe of statements previously submitted to them. The investigator then used this list of purpose as a cross-reference to determine whether or not the statements of objectives in the Basic Beliefs of Distributive Education were consistent with the purposes of Vocational Education. The list was also helpful in determining whether or not the list of basic beliefs regarding the total program of distributive education was complete.

The statements of basic beliefs were again revised and resubmitted by mail to the Committee of Consultants. After a final revision each of the ninety-six statements was printed on a 3" x 4" card to form a Basic Belief card-sort. To avoid the possibility of a reaction to the category rather than to the belief, the category, such as "definitions," was not

> indicated on the card. However, the cards concerning each category were assembled consecutively in the deck. This structured card-sort represented a set of hypotheses, which, if accepted would become the theoretical foundation upon which the other elements in the competency pattern would be based.[1]

Crawford sent the revised "basic belief card-sorts," instruction and answer sheets, and a profile questionnaire to the entire population of her study: fifty-three state supervisors, fifty-seven area or district supervisors, and sixty two teacher educators. Table 1 shows the percentage of returns.

The respondents were instructed to sort their cards into five piles. The piles, numbered as shown below, were to indicate the respondents' relative agreement with the basic beliefs on the cards.

1	2	3	4	5
Agree	Partially Agree	Neutral	Partially Disagree	Disagree

No time limit was enforced. The respondents were asked to change their answer as often as they liked until they were fully satisfied before recording their answers.

This Q-sorting procedure is the heart of Crawford's study. Her literature search showed that a variation of Q-technique was the correct method for her study. She wanted to determine a basic philosophy from her participants' responses. In addition to doing so, she needed an instrument that would elicit subjective reactions,

---

[1]Lucy C. Crawford, "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education," Final Report to Research Project Supported by U. S. Office of Education Grant No. OE-6-85-044, Vol. I, 1967, pp. 10-11.

TABLE 1.--Number and Percentage of Returns of Reactions to Basic Beliefs Concerning Distributive Education and Profiles of the Respondents.[a]

	Number[b]	Basic Belief reactions returned	Percent	Profiles returned	Percent	Individuals returning both instruments No.	Individuals returning both instruments Percent
State Supervisors	53	51	96.2	51	96.2	49	92.5
Assistant State Supervisors	57	50	87.7	51	89.5	49	86.0
Teacher Educators	62	58	93.5	61	98.4	55	88.7
TOTAL NUMBER	172	159	92.4	163	94.8	153	89.0

[a]Lucy C. Crawford, "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education," Final Report of Research Project Supported by United States Office of Education Grant No. OE-6-85-044, Vol. I, 1967, p. 12.

[b]The total number in each category listed on the Director of the United States Office of Education, October 1965, with the exception of three listed as state directors and two assistant supervisors who changed jobs.

and conventional rating procedures like true-false, multiple choice, or write-in tests do not have this characteristic. Stephenson explained the function of the Q-method with respect to an individual:

> . . . the truth or falsehood of these sortings is in no way at issue - it will not matter to us whether the subject "tells the truth," "doesn't cheat," or the like. For whatever he does is open to our full factorial regard, and indeed, we need believe nothing but our interpretations of the factors that result or the effects that prove to be significant, and these could, of course, merely lead to the conclusion that x wasn't "telling the truth" or the like. The whole purpose is to offer opportunities for the subject to give himself away, by projection, rationalization, identification, idealization, and the rest; and that is why we prove into him, so to speak. It would be different for him to pull wool over our eyes in a consistent fashion in all such throwings, and in point of fact, with care about rapport and the like, rightly diversified data can be obtained from a single person along the above lines.[2]

Charles B. Smith used the basic Q-technique to measure a group of students' self-concepts about their writing competence. Smith explains its use:

> Conventional methods of assessment consist of having subject respond to the best judgment of the investigator; responses are restricted to predetermined choice . . . The essential distinguishing feature of the Q-Sort technique is that the respondent is free to arrange selected statements in whatever order he perceives them to apply to himself . . . Thus a Q-Sort forces a person to make the decisions about a statement in relation to every other statement in the sample . . . . In a Q-Sort, there is no one predetermined "correct" order of self-descriptive statements; instead, any order of statements employed by any respondents is "correct" in that, by definition, the ordering is a self-description, and self-description is here the object of measurement.[3]

---

[2]William Stepehnson, The Study of Behavior, Q-Technique and Its Methodology (Chicago: The University of Chicago Press, 1953), p. 231.

[3]Charles B. Smith, "The Development of a Q-Sort to Measure Self-Concept of Writing Competence" (Ed.D. dissertation, Colorado State College, Greeley, 1962), p. 71.

The above describes the basic Q-sort technique, which, as Stephenson first conceived it, was to gain insights into individuals. The key words are ". . . a Q-Sort forces a person to make decisions about a statement in relation to every other statement . . ." This basic method has come to be known as the "forced" procedures. John M. Block compared the efficiency of it with that of the "unforced" procedure. He wrote that his investigation

> . . . empirically studied the relative efficiencies of the unforced and forced Q-sorting procedures. The unforced approach is desirable in those circumstances where the scale separation of items is important and the ordering of items is held to be irrelevant or is in fact undifferentiating . . . .[4]

Crawford chose the "unforced" variation of the Q-method, whereby the respondents are not forced to make decisions about every statement in relation to every other statement, but merely to sort statements and mark answers ranging from Agree to Neutral to Disagree. She then could determine the relative degree of agreement between two groups of her respondents by applying Spearman's rank order correlation coefficient. In order to apply the coefficient, first the arithmetic average of responses (1 through 5) to each statement was computed. An average of 1.0 would show total agreement; an average of 5.0 would show total disagreement. Spearman's rank order correlation coefficient, corrected for tied ranks, could then be used to rank the three groups pairwise. The measure of overall agreement among the three groups was obtained by applying

---

[4]Jack M. Block, "A Comparison of the Forced and Unforced Q-Sorting Procedure," Educational and Psychological Measurement XVI, No. 4 (1956): 492.

Kendall's Coefficient of Concordance. Crawford computed these coefficients for each of the seven categories of beliefs, and for the universe of ninety-six statements as a whole.

Summary

In review of the related research it was found that all of the authors followed similar procedures in arriving at a set of guiding principles or philosophies in business and distributive education.

Generally the authors determined major issues in business and distributive education by either reviewing current literature, by discussions with business educators, by conference, panels, seminars, or by interviewing selected leaders in business and distributive education. Once a set of statements was established the authors then selected a number of business education leaders to rank each statement. What emerged from the rankings was the leaders' opinions concerning the set of statements. The importance of each issue was tabulated and analyzed. In each study a small number of statements usually received near complete agreement. These issues then indicated that the statement could be considered as a principle(s) of business and distributive education.

Lucy C. Crawford carried the above studies one step further since she started with statements of basic belief that were drawn from the contempory literature. From these belief statements she hoped to establish a philosophy of distributive education.

Lucy C. Crawford summarized her contribution to the philosophy of distributive education along with the above studies in the most suitable way when she stated:

> These findings have implications for all phases of the distributive educational program and should have a bearing on other vocational educational fields as well. The fact that the vast majority of the leadership in distributive education has agreed upon definitions, aims and objectives, curriculum, guidance, coordination, administration, and teacher education as applied to this field indicates that the philosophy of distributive education expressed in these findings can serve as a theoretical structure on which not only this research but related research can be erected.
>
> Research workers in other vocational fields may find a comparison of the philosophy of agricultural education, business education, home economics education, and industrial education with the philosophy of distributive education of value both from the standpoint of content and from the method used in the construction of the basic-beliefs. Distributive teacher educators can use the findings as a major source of material for the course in organization and administration of distributive education. Distributive Education administrators--national, state, local--should find the philosophical statements helpful in interpreting the program to the public.[5]

---

[5]Lucy C. Crawford, op. cit.

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

Population

To define the population of this study the 1965 Crawford Study population must first be examined. A questionnaire concerning the basic belief statements were mailed to the entire population of distributive education state supervisors; assistant, area, and/or district supervisors; and teacher educators as listed in the United States Office of Education Directory of October, 1965. These 172 respondents are known as the 1965 Leadership Group in this study.

In 1974 the same questionnaire was sent to:

1. The population of the same personnel from the 1965 Crawford study who have remained in their respective job classifications. This group is called the 1974 Leadership Group and consists of 59 people.

2. The population of the same personnel from the 1965 Crawford study but who have transferred or shifted job classifications. This group is called the 1974 Job Shift Group and consists of 23 people.

3. The population of new personnel hired to replace respondents from the 1965 Crawford study due to normal attrition. This group is called the 1974 New Staff Group and consists of 97 people.

Edwin L. Nelson,[1] cooperated by providing the lists of the above populations.

Reliability and Validity

Reliability of Response

1. 1965 Leadership Group. The population consisting of personnel who were part of the original Crawford Study in 1965. There were 172 respondents in this group or 100% of the population.

2. 1974 Leadership Group. The population consisting of personnel who were part of the 1965 Crawford Study and have remained in their respective job classifications. There are 59 persons in this population of which 42 responded or 71% of the population.

3. 1974 Job Shift Group. The population consisting of personnel who were part of the 1965 Crawford Study and have transferred or shifted job classifications. There are 23 persons in this population of which 12 responded or 52% of the population.

4. 1974 New Staff Group. The population consisting of new personnel hired to replace respondents from the 1965 Crawford Study who left their positions due to normal attrition. There are 97 persons in the population of which 78 responded or 80% of the population.

It is necessary to be "confident" that the respondents' (sample) means derived in Tables 2 through 14 are representative of the entire group (population). To accomplish this turn to the statistical formula

---

[1]Edwin L. Nelson, Education Program Specialist-Marketing and Distribution Occupations of the U. S. Department of Health, Education and Welfare, Washington, D. C.

> . . . for a sample that is large and distribution approximately normal.
>
> $\mu_{\bar{X}} = \mu$ AND $\sigma_{\bar{X}} = \frac{\sigma}{N}$ Point Estimate
>
> Where μ and μ are the population mean and standard deviation respectively.[2]

Unfortunately, however, the probability that a particular sample will yield a mean exactly equal to the population mean is very small or even zero. It is imperative to find out "How close?" the sample is to the entire population and "With what probability?" are these results reliable. The formula to establish a 95% confidence interval follows.

For a particular mean $\bar{X}$, there is a 95% confidence that the interval

$$\left[\bar{X} - 1.96 \frac{\sigma}{\sqrt{N}}, \bar{X} + 1.96 \frac{\sigma}{\sqrt{N}}\right] \quad \text{95\% confidence interval}$$

contaims μ.[3]

Using statement 44 as an example, the 1974 Leadership Group displays

$\bar{X} = 2.07$ S.D. = 1.791

$\left[\bar{X} - .54, \bar{X} = .54\right]$

$\left[1.53, \quad 2.61\right]$ as a 95% confidence interval, the

---

[2]David W. Blakeslee, Introductory Statistics and Probability (Boston: Houghton Mifflin Co., 1971), p. 42.

[3]Ibid., p. 245.

1974 Job Shift Group displays

$\overline{X} = 1.91$ S.D. = 1.743 (NOTE THAT THIS INTERVAL MUST BE TWICE AS LARGE TO ASSURE RELIABILITY AS COMPARED TO THE OTHER TWO GROUPS)

$\left[\overline{X} - .98, \quad X + .98 \right]$

$\left[.93, \quad 2.89 \right]$ as a 95% confidence interval and the

1974 New Staff Group displays

$\overline{X} = 1.83$ S.D. = 1.797

$\left[\overline{X} - .39, \quad \overline{X} + .39 \right]$

$\left[1.44, \quad 2.22 \right]$ as a 95% confidence interval

This sample shows that the 1974 Job Shift Group lacks the size needed to produce a sample in which one can be confident the figures are valid. The rest of the study will contain the values for the 1974 Job Shift Group on the assumption that the figures are reliable.

Since the tables are derived from the means of the belief statements, it can be proven that the rest of the calculated figures represent the total population from the sample.

Validity of Technique

The statistical manipulations and techniques used to test the hypothesis were the Q-sort methodology, Spearman's Rank Order Correlation Coefficient, Kendall's Coefficient of Concordance, W, and

Chi-square. Investigations in the field of education have found the Q-technique to be valid for various reasons. Robert E. Cummins in his study of Q applications to teaching and educational research, gave four reasons for assuming its validity.

> Q lends itself to theory orientation. In its most sophisticated form, the selection of items compromising the Q-sort is guided by an explicit theory of permissive teaching, of democratic administration, of group-centered leadership, etc.
>
> In Q, the subject himself assumes responsibility for the definitive phase of the evaluation. There are no right or wrong answers in Q except on the basis of the particular theory whence the instrument emerged . . . .
>
> Q provides flexibility amid economy. This instrument can be changed by simply placing the items in a different context through a change of instructions . . . .
>
> The interpretation of Q data is simple. Both from a statistical and a mere inspection point of view, the technique of interpretating Q data requires little sophistication . . . . any public school teacher who can add, subtract, and divide can obtain an interpretation . . . . On the other hand, a mere inspection of Q score sheets pin points the items about which agreement or disagreement center.[4]

Even though this technique requires little sophistication to interpret, William J. Schill pointed out that the technique itself is highly sophisticated. He gave the following reasons: a Q-sort can be handled to reflect group opinion; Q-sort requires that each item in the sort be compared with all other items; and it can be used with Kendall's coefficient of concordance to demonstrate the extent to which individuals responding agree on the order of placement of items.[5] The Q-sort necessitates that each statement be compared with

---

[4]Robert E. Cummins, "Some Application of 'Q' Methodology to Teaching and Educational Research," The Journal of Educational Research LVII, No. 2 (October, 1963): 96-97.

[5]William J. Schill, "The Use of the Q-Technique in Determining Curriculum Content," California Journal of Educational Research XII (September, 1961): 178, 182-184.

all other elements in order to determine their relative relationship.

Schill pointed out this importance and noted that Spearman's Rank Order Correlation Coefficients are the basic computations used in this type of study. He also stated that Kendall's Coefficient of Concordance has a linear relationship to Spearman's rank order. He concluded that:

> The use . . . of the Q-technique in soliciting responses relative to curricula content is a feasible and workable method. The forced sort concept from Q-technique does not need to be applied rigorously since having something other than a forced normal distribution still permits analysis and measure of individual and group agreements. Further, the use of group values of the sort for subsequent analysis is much simpler than assigning rank orders to each individual's response in a distribution that differs from a normal distribution.[6]

Schill stated that this coefficient can be used to compute the relative agreement of a group of individuals concerning the importance of statements in a Q-sort.[7]

Sidney Siegel summarized its use:

> The Kendall coefficient of concordance W measures the extent of association among several (k) sets of rankings of N entities. It is useful in determining the agreement among several judges of the association among three or more variables. It has special applications in providing a standard method of ordering entities according to consensus when there is available no objective order of the entities.[8]

---

[6]William J. Schill, "Unforced and Group Responses to a Q-sort," The Journal of Experimental Education XXXIV (Summer, 1966): 20.

[7]Ibid.

[8]Sidney Siegel, op. cit.

Chi-square was used to compare the four groups of respondents. Chi-square is a versatile statistic which can be used for either single or multiple samples.

Elzey stated that the chi-square test provides a statistic based upon the differences between observed and expected frequencies. The test tells whether or not the difference between observed and expected frequencies is significant at the P = .01 or P = .05 levels. The chi-square test determines whether the observed frequencies in the sample differ significantly from the expected frequencies based upon the null hypothesis. If they do, the null hypothesis is rejected.[9]

Guilford stated that one important feature of chi-square is its additive property, making possible the combination of several statistics or other values within the same test. Thus, a hypothesis which involves more than one set of data can be tested for significance. Chi-square is used with data in the form of frequencies or data that can be reduced to frequencies.[10]

Since this is a replication of the Crawford study and Crawford concluded from the many testimonials regarding the effectiveness of the Q-sort that it and the two methods of computations were valid and reliable for use in her work. Crawford used the .05 level

---

[9]Freeman F. Elzey, A First Reader in Statistics (Belmont: Brooks/Cole Publishing Company, 1968), p. 65.

[10]J. P. Guilford, Fundamental Statistics in Psychology and Education, 4th ed. (New York: McGraw-Hill Book Company, Inc., 1965), p. 227.

of confidence because she believed that it was an adequate level of significance for basic beliefs. Thus, the present work also used the .05 level of confidence.

Instrument

The basic tool used in this study consists of the 96 belief statements first formulated in the study developed by Lucy C. Crawford in 1965 (see Appendix C). These 96 statements were placed in seven categories (Definitions, Objectives, Guidance, Coordination, Curriculum, Organization and Administration and Teacher Education). These statements were mailed to the population. Included with the 96 statements was an instruction sheet and cover letter A or B (see Appendix B). The respondents used the Q-sort method to record their reactions.

The answer sheets were received and the data transcribed into various tables, respective to respondent group. The data was then subjected to various statistical functions (calculated mean, rank, Spearman's rank order, Kendall's W and Chi-square) to test nine hypotheses.

Collection and Analysis of Data

Due to the fact that this study replicates the Lucy C. Crawford Study, there was no need for a pilot study. On July 29, 1974, the 96 belief statements were mailed to the 179 leaders in distributive education. A follow-up letter was mailed on September 9, 1974. Before any data was analyzed, a cut-off date had to be established.

October 29, 1974, was chosen and as of that date the sample population was established. The breakdown of the response and the final sample is shown in Figure 1. (See Figure 1 on the following page.)

As each response was received the reaction for each of the ninety-six statements was recorded on a worksheet (one for each group). When the sample was closed the worksheets were summarized and the means and rankings for each statement were calculated. The rankings were adjusted for tied scores. These rankings were then subjected to Spearman's Rank Order Correlation Coefficient computations to test hypotheses 8 and 9.

The rankings were then used to compute Kendall's W and subsequently Chi-square to determine the existence of a positive relationship between the 4 groups in the 7 categories. This was used to test hypotheses 1 through 7.

Summary

Defining the population as (1) participants of the 1965 Crawford Study, (2) the same personnel who have remained in their respective job classifications since 1965, (3) personnel who have shifted jobs since 1965 and (4) new staff persons added to replace those lost through attrition since 1965, this study tests nine hypotheses concerning the relationship between the four groups. The sample returned was significant enough to provide sound data for calculation of means, Spearman's Rank Order Correlation Coefficients, Kendall's W, and Chi-square representative of the total population. To test hypotheses 8 and 9 Spearman's rank order was

used to show correlation between the four groups while Kendall's W and Chi-square are used to show concordance and degree of concordance needed to test hypotheses 1 through 7.

	Total Number Questionnaires Mailed	Total Number Returned - First Mailing	Percent Returned - First Mailing	Total Number Follow-up Letters Mailed	Total Number Returned - Second Mailing	Percent Returned - Second Mailing	Total Number Returned Both Mailing	Percent Returned Both Mailing
1974 Leadership Group	59	34	57%	25	8	32%	42	71%
1974 Job Shift Group	23	10	43%	13	2	15%	12	52%
1974 New Staff Group	97	68	70%	29	10	34%	78	80%

Figure 1.--Analysis of the Response of the Three 1974 Respondent Groups to the First Mailing of the Questionnaire and the Follow-Up Letter.

CHAPTER IV

FINDINGS

Introduction

Mores, values, insights, and the world in general have changed extensively since the mid-nineteen sixties. In 1965, the Crawford study known as "A Philosophy of Distributive Education" was completed. This study constructed a philosophy of distributive education by validating a set of basic beliefs concerning definitions, aims and objectives, guidance, coordination, curriculum, administration, and teacher education.

In order to compare the philosophies of those questioned in the Crawford study with (1) the same personnel who have remained in their respective job classification since 1965, (2) the personnel in the original group who have transferred or shifted job classification since 1965, and (3) the new personnel hired to replace respondents in the original group due to normal attrition between 1965 and 1974, data was collected from each group concerning the ranking of relative importance of the ninety-six statements[1] that make up "A Philosophy of Distributive Education."

---

[1]The statements as they appeared in the questionnaire mailed to the 1974 Leadership Group, 1974 Job Shift Group, and the 1974 New Staff Group are given in Appendix C, Tables 19 through 25. These tables also show the composite mean of degree of agreement for each group of participants.

This comparison is used to prove or disprove the following hypotheses:

> The rankings of the ninety-six statements in the seven categories by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related.

The mean and rank ordering for each of the statements had to be computed. Using the mean and rank ordering to make a comparison of the four respondent groups, a calculation of Kendall's W was made for each category summarized in Table 16. The values of Kendall's Coefficient of Concordance show the degree of agreement between the four groups. Chi-square was calculated to determine whether the null hypotheses 1 through 7 were accepted or rejected. The .05 value of Chi-square was used to make such determinations.

Using the 1965 Crawford study group as the common denominator, the three 1974 groups were compared pairwise for agreement in the seven categories. In addition to this, the 1974 Leadership Group was likewise compared to the 1974 New Staff Group to see if the 1974 Leadership Group, the "old school," was in agreement with the 1974 New Staff Group, the "new school." To accomplish this comparison, Spearman's Rank Order Correlation Coefficient, corrected for tied ranks, was used. The summaries of the rank order correlations of the three ranking groups are consolidated in Table 17. The .05 value for the Spearman Rank Order Correlation Coefficient (r_s) is also included in the table. It shows the value that r_s must reach in order to indicate significant agreement between the ranking groups at the .05 level of confidence.

Analysis of the Seven Categories and Their Results

1. Definitions

The results for Definitions shown in Table 3A indicate that between the four respondent groups, the number obtained for Kendall's W shows the greatest possible agreement; 1.00. The Chi-square value likewise reflects almost total significant agreement.

Using Spearman's Rank Order Correlation in Table 3, the 1965 Leadership Group, when compared distributively to the other three groups, surpasses the .05 level of significance categorically. Overshadowing this correlation is the positive relationship between the 1974 Leadership Group and the 1974 New Staff Group.

In Table 2, it can be observed that belief statement 1:

> That distributive education is a vocational instructional program designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation or an occupation requiring competency in one or more of the marketing functions.

regardless of respondent group, ranks in near perfect agreement. Conversely, in Table 2 belief statement 13:

> That a project in the distributive education project plan is a combination of organized classroom and community learning activities related to an individual's distributive occupational interests. The length of time to complete the project depends upon the ability of the individual learner.

inclusively ranks as the least agreed upon Definition.

The only statement in Table 2 where dissension arose was Definition 17:

> That training sponsor is the person in a distributive organization designated to be responsible for training

> and supervising the distributive education student on his job. He works directly with the D. E. coordinator.

The same personnel questioned in 1974 as in 1965, ranked this statement considerably different. In 1965, belief statement 17 ranked 12.5 while in 1974 the same statement ranked 1.5. The 1974 New Staff Group took a somewhat middle-of-the-road ranking on the same statement.

The Definitions category was the most agreed upon category regardless of respondent group. The category inherently lends itself to this degree of agreement. Definitions are similar to axioms in mathematics which must be accepted in order to continue further discussion. One of the questionnaires contained a comment which amply states the feelings of the respondents to this category ". . . disagreeing with any of these belief statements would be like being opposed to God, country, apple pie and motherhood."

Even though there was complete agreement, Definitions received many comments. Some were minor: the word plan was changed to method in questions 5, 6 and 7 and in statements 12 and 13 the word interest was changed to objectives. Others were more involved, such as the following comment on the cooperative method ". . . I think that the term should be dropped because it generates confusion with the cooperative plan. I think it relates to a cluster of learning activities that combine classroom and on-the-job learning experiences . . . ."

TABLE 2.--The Rank Ordering of Basic Beliefs within the Definition Category by the Four Ranking Groups.

01 That distributive education is a vocational instructional program designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation or an occupation requiring competency in one or more of the marketing functions.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.04	1	1.00	1.5	1.00	1.11	1.02	2

02 That distributive education, as a vocational program, offers instruction in marketing, merchandising, related management and personal development.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
12.7	5	1.26	14.5	1.00	1.11	1.05	3.5

03 That distribuive occupations are those occupations followed by persons engaged primarily in the marketing or merchandising of goods and services, at both management and non-management levels.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.08	2	1.07	5.5	1.00	1.11	1.10	6

04 That a distributive education teacher-coordinator is a member of the local school staff who teaches distributive and related subject matter to students preparing for employment and coordinates classroom instruction with on-the-job training or with occupationally oriented learning activities of students. He is responsible for the distributive education program in the school. His responsibilities for adult distributive education may vary.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.37	11	1.04	3.5	1.00	1.11	1.15	8

TABLE 2.--Continued.

05 That the distributive education cooperative plan is an organizational pattern of instruction which involves regularly scheduled part time employment and which gives students an opportunity to apply classroom learnings in practice. It enables them to develop occupational competencies through training on jobs related to their distributive occupational interests.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.33	9	1.04	3.5	1.00	1.11	1.05	3.5

06 That the distributive education project plan is an organizational pattern of instruction which involves a series of selected learning activities or projects related to the field of marketing, merchandising and management and which are related to a student's occupational interests.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.61	18	1.38	17	1.16	14.25	1.19	11.33

07 That distributive education preparatory instruction, whether under the project plan or as part of the cooperative plan, is instruction which prepares youth or adults for entry and advancement in a distributive occupation or in an occupation requiring distributive competencies.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.31	6.5	1.21	13	1.16	14.25	1.16	9.5

08 That distribtive education supplementary instruction is instruction for distributive workers wishing to refresh, update or upgrade competencies needed in their distributive employment. It is usually provided on a part time basis.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.53	15.5	1.26	14.5	1.33	18	1.28	16

TABLE 2.--Continued.

09 That coordination is the process of organizing, developing and maintaining effective relationships among all groups involved in the distributive education program to the end that the student receives the best possible preparation for a career in distribution.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.40	14	1.16	10	1.16	14.25	1.24	14

10 That the cooperative method in distributive education is a means by which an organized sequence of on-the-job learning experiences to develop competencies related to each student's distributive occupational interest is correlated which classroom instruction.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.21	4	1.11	8	1.00	1.11	1.16	9.5

11 That in distributive education participating experiences are learning experiences which focus on activities of distributive occupations and decision-making situations in distribution.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.35	10	1.14	9	1.08	10.25	1.29	17

12 That the project method is a means by which classroom instruction is correlated with a series of group and/or individually designed learning activities and projects related to a student's occupational interest.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.39	12.5	1.35	16	1.08	10.25	1.19	11.33

TABLE 2.--Continued.

13 That a project in the distributive education project plan is a combination of organized classroom and community learning activities related to an individual's distributive occupational interests. The length of time to complete the project depends upon the ability of the individual learner.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.60	17	1.50	18	1.08	10.25	1.33	18

14 That a distributive occupational objective is a current career goal, selected by the student, the preparation for which is the purpose for his vocational instruction in distribution and marketing.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.32	8	1.19	11.5	1.16	14.25	1.19	11.33

15 That Distributive Education Clubs of America is a youth organization providing a program of activities which complements and enriches distributive curriculum.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.31	6.5	1.19	11.5	1.00	1.11	1.25	15

16 That an advisory committee for distributive education is a group of persons representative of both the school and the business community which gives recommendations that may be used for the development and improvement of the distributive education program. School representatives are ex-officio members.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.53	15.5	1.09	7	1.08	10.25	1.11	7

TABLE 2.--Continued.

	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
17 That a training sponsor is the person in a distributive organization designated to be responsible for training and supervising the distributive education student on his job. He works directly with the D. E. coordinator.	1.39	12.5	1.00	1.5	1.00	1.11	1.06	5
18 That a training station is the place of employment of the distributive education student where he receives on-the-job training and supervision by his employer and/or training sponsor.	1.17	3	1.07	5.5	1.00	1.11	1.01	1

SUMMARY OF TABLE 2.--The Rank Ordering of Basic Beliefs Within the Definition Category by the Four Ranking Groups.

Definitions	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
01	1.04	1	1.00	1.5	1.00	1.11	1.02	2
02	1.27	5	1.26	14.5	1.00	1.11	1.05	3.5
03	1.08	2	1.07	5.5	1.00	1.11	1.10	6
04	1.37	11	1.04	3.5	1.00	1.11	1.15	8
05	1.33	9	1.04	3.5	1.00	1.11	1.05	3.5
06	1.61	18	1.38	17	1.16	14.25	1.19	11.33
07	1.31	6.5	1.21	13	1.16	14.25	1.16	9.5
08	1.53	15.5	1.26	14.5	1.33	18	1.28	16
09	1.40	14	1.16	10	1.16	14.25	1.24	14
10	1.21	4	1.11	8	1.00	1.11	1.16	9.5
11	1.35	10	1.14	9	1.08	10.25	1.29	17
12	1.39	12.5	1.35	16	1.08	10.25	1.19	11.33
13	1.60	17	1.50	18	1.08	10.25	1.33	18
14	1.32	8	1.19	11.5	1.16	14.25	1.19	11.33
15	1.31	6.5	1.19	11.5	1.00	1.11	1.25	15
16	1.53	15.5	1.09	7	1.08	10.25	1.11	7
17	1.39	12.5	1.00	1.5	1.00	1.11	1.06	5
18	1.17	3	1.07	5.5	1.00	1.11	1.01	1

TABLE 3.--Spearman's Rank Order Correlations of Reactions on Definitions of the 1965 Leadership Group to the Three 1974 Groups (Leadership, Job Shift, New Staff) and Between the 1974 Leadership Group and the 1974 New Staff Group.

	Rank Order Correlations Coefficients, r_s			
.05 Value of r_s	1965 Leadership Group & 1974 Leadership Group	1965 Leadership Group & 1974 Job Shift Group	1965 Leadership Group & 1974 New Staff Group	1974 Leadership Group & 1974 New Staff Group
.39	.466	.429	.577	.648

TABLE 3A.--Chi-Square and Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Definitions.

Coefficient of Concordance, W	Chi-Square, X^2	.05 Value, X^2
1.00	68.0	27.58

2. Objectives

Unqualified disagreement on Objectives can be ascertained by perusal of Tables 5 and 5A. Disagreement is supported by the following: (1) the failure of the Chi-square value in Objectives to reach the .05 value denoting significance (X^2 = 18.0, .05 value = 18.30) and (2) the Coefficient of Concordance, W, is .45 which, according to definition, shows less than a strong positive relationship. In Table 5 additional evidence is produced by the inability of the Spearman's Rank Order Correlation to reach a significant level of agreement in any of the four associated groups.

Focusing on Table 4, the basis for Objectives' lack of uncomplementary relationship between respondent groups may be discovered. Excluding belief statements 22 and 23 (where agreement was predominant) and belief statements 28 and 29 (where disagreement prevails) the distribution of the rankings is random.

Lucy Crawford states in 1965 ". . . despite the fact that procedures, techniques and policies change to reflect changing conditions, the aims and objectives tend to remain constant." The results included in this study, however, do not uphold this statement but rather reject it. Objectives, when compared to find concordance between the four groups, displays no significant relationship. The 1965 Leadership Group, when compared pairwise with both the 1974 Leadership Group and the 1974 New Staff Group, cannot produce a correlation coefficient that exceeds the significance level in Table 5. Also in Table 5, the 1974 Leadership Group vs the 1974

New Staff Group cannot show correlation in response. Concluding from this phenomenon it appears that each group is autonomous in formulating objectives.

TABLE 4.--The Rank Ordering of Basic Beliefs Within the Objective Category by the Four Ranking Groups.

	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
19 That preparation for gainful employment and for advancement in distributive occupation is the primary goal of the distributive education program.	1.28	11	1.02	2.25	1.08	5.20	1.16	9
20 That the distributive education program should engender an understanding and appreciation of the American private enterprise system as a cornerstone of the American Democracy.	1.08	2	1.04	6	1.00	1.25	1.17	10
21 That the distributive education program should foster an awareness of the civic, social and moral responsibilities of business to society.	1.10	3.5	1.02	2.25	1.00	1.25	1.15	6.33
22 That the distributive education program should encourage and promote the use of ethical standards in business and industry.	1.06	1	1.00	1	1.08	5.20	1.06	1
23 That the distributive education program should stimulate the student's interent in his chosen distributive occupational field by providing an understanding of the opportunities it offers him to be a contributing member of society.	1.10	3.5	1.02	2.25	1.00	1.25	1.12	3.5

TABLE 4.--Continued.

24 That the distributive education program should prepare distributive personnel to analyze consumer demand and to satisfy the needs and wants of consumers intelligently, efficiently and pleasantly.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.18	6	1.14	9.5	1.08	5.20	1.26	11

25 That the distributive education program should provide training that results in increased efficiency in distribution and marketing.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.11	5	1.11	8	1.00	1.25	1.15	6.33

26 That the distributive education program should contribute to the improvement of the techniques in distribution and marketing.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.23	9	1.09	7	1.08	5.20	1.12	3.5

27 That the distributive education program should be sensitive to changes in distributive and marketing practices and procedures as they are affected by societal, economic, technical and educational developments, and adapt to such changes.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.20	7	1.02	2.25	1.08	5.20	1.07	2

TABLE 4.--Continued.

28 That the distributive education program should advance the objectives of the total educational program.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.24	10	1.14	9.5	1.16	10	1.15	6.33

29 That the distributive education program should strive to develop among employers, employees and consumers a wider appreciation of the value of specifically trained personnel in distribution.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.22	8	1.21	11	1.25	11	1.14	5

SUMMARY OF TABLE 4.--The Rank Ordering of Basic Beliefs Within the Objective Category by the Four Ranking Groups.

Objectives	1965 Leadership Group Group I		1974 Leadership Group Group II		1974 Job Shift Group Group III		1974 New Staff Group Group IV	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
19	1.28	11	1.02	2.25	1.08	5.20	1.16	9
20	1.08	2	1.04	6	1.00	1.25	1.17	10
21	1.10	3.5	1.02	2.25	1.00	1.25	1.15	6.33
22	1.06	1	1.00	1	1.08	5.20	1.06	1
23	1.10	3.5	1.02	2.25	1.00	1.25	1.12	3.5
24	1.18	6	1.14	9.5	1.08	5.20	1.26	11
25	1.11	5	1.11	8	1.00	1.25	1.15	6.33
26	1.23	9	1.09	7	1.08	5.20	1.12	3.5
27	1.20	7	1.02	2.25	1.08	5.20	1.07	2
28	1.24	10	1.14	9.5	1.16	10	1.15	6.33
29	1.22	8	1.21	11	1.25	11	1.14	5

TABLE 5.--Spearman's Rank Order Correlations of Reactions on Objectives of the 1965 Leadership Group to the Three 1974 Groups (Leadership, Job Shift, New Staff) and Between the 1974 Leadership Group and the 1974 New Staff Group.

	Rank Order Correlations Coefficients, r_s			
.05 Value of r_s	1965 Leadership Group & 1974 Leadership Group	1965 Leadership Group & 1974 Job Shift Group	1965 Leadership Group & 1974 New Staff Group	1974 Leadership Group & 1974 New Staff Group
.54	.306	.531	.180	.350

TABLE 5A.--Chi-Square and Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Objectives.

Coefficient of Concordance, W	Chi-Square, X^2	.05 Value, X^2
.45	18.0	18.30

3. Guidance

Excluding the 1974 Job Shift Group which had an excess of tied scores, examination of Table 6 manifests a consistency between the rankings for the three remaining groups. There is some disparity in belief statement 43:

> That individual student records should be kept by the distributive education teacher-coordinator in cooperation with the student as evidence of progress and competencies achieved either through projects completed or though occupational experiences.

which is ranked 4 by the 1965 Leadership Group and 1.25 by the 1974 Leadership Group, while the 1974 New Staff Group ranks it at 10.5.

This category showed remarkable agreement using Kendall's W with the inclusion of the 1974 Job Shift Group. Because of numerous tied scores, this group skews the final outcome so it can be deduced that the elimination of the 1974 Job Shift Group would result in greater agreement. An observation of Table 6 shows that the 1965 Leadership Group responded to the belief statements with more disagreement than the three 1974 respondent groups. The rankings turned out to be in agreement regardless of the magnitude of the individual response. The implication of this situation is that the groups can rank the belief statements similarly but not necessarily agree on the response to the particular belief statement.

Tables 7 and 7A similarly display a high degree of agreement in ranking the belief statements. Again, excluding a comparison with the 1974 Job Shift Group, the Spearman Rank Order Correlation Coefficients (Table 7) exceed the .05 value of r_s deemed to be significant in each instance. More evidence is provided by Table 7A which

projects Guidance to have a strong positive relationship between the four groups (.74 Kendall's W and X^2 equal to 38.48 where significance is reached at 22.36).

TABLE 6.--The Rank Ordering of Basic Beliefs within the Guidance Category by the Four Ranking Groups.

30 That a primary goal of each D. E. teacher-coordinator's guidance activities should be the growth and adjustment of individual students in relation to their occupational interests in distribution and marketing.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.48	12	1.04	5.5	1.08	8.33	1.14	7.5

31 That each distributive education student should have a distributive occupational interest if he is to give his best effort in learning technical skills and knowledges and in making occupational adjustments.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.61	13	1.38	12.33	1.00	1.14	1.14	7.5

32 That all applicants for the distributive education program should be carefully considered to assure the inclusion of those students who can and sincerely wish to profit from instruction.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.27	8	1.35	11	1.00	1.14	1.19	12

33 That in selecting training stations for distributive education students, every effort should be made to select those most likely to provide occupational and educational opportunities in keeping with the students' capabilities, interests and goals.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.08	1	1.04	5.5	1.00	1.14	1.06	3.5

TABLE 6.--Continued.

34 That distributive education students should be provided continuous assistance in securing the knowledge, skills and attitudes needed in making adequate choices, plans and interpretations essential to satisfactory adjustment in the distributive occupations.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.17	5	1.02	1.25	1.00	1.14	1.06	3.5

35 That each distributive education student is a unique person intellectually, socially, emotionally and physically and should be treated individually according to his capacities and interests.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.20	6	1.02	1.25	1.00	1.14	1.11	5

36 That cooperative effort should be made to detect and modify conditions that interfere with the distributive education student's advantageous use of his educational and occupational opportunities.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.25	7	1.11	8	1.16	11.25	1.15	9

37 That a distributive education student should determine for himself, with the assistance of guidance resources available, the point at which he should cease his formal education--at high school, post-high school or college level.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.64	14	1.38	12.33	1.16	11.25	1.52	14

TABLE 6.--Continued.

38 That many youth need supervised occupational experience as well as correlated instruction in the skills, knowledge and attitudes of their occupations in order to make them more intelligent and productive participants in economic life.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.42	9.5	1.21	10	1.16	11.25	1.12	6

39 That students who are selected to enter the distributive education cooperative classes potentially should be able to represent the school in a satisfactory manner when in contact with business people of the community and the customers they serve.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.42	9.5	1.38	12.33	1.08	8.33	1.35	13

40 That each student enrolled in distributive education should be made fully aware of the opportunities and careers in distribution and marketing that are available to him.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.14	3	1.02	1.25	1.00	1.14	1.03	1.5

41 That distributive education students should be counselled periodically by teacher-coordinators, employers and guidance counselors concerning progress towards their occupational objectives.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.11	2	1.07	7	1.00	1.14	1.03	1.5

TABLE 6.--Continued.

	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
42 That the distributive education program should provide guidance and vocational counseling for adults needing training or retraining for occupations in distribution and marketing.	1.44	11	1.14	9	1.16	11.25	1.17	10.5
43 That individual student records should be kept by the distributive education teacher-coordinator in cooperation with the student as evidence of progress and competencies achieved either through projects completed or through occupational experiences.	1.15	4	1.02	1.25	1.08	8.33	1.17	10.5

SUMMARY OF TABLE 6.--The Rank Ordering of Basic Beliefs Within the Guidance Category by the Four Ranking Groups.

Guidance	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Group I		Group II		Group III		Group IV	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
30	1.48	12	1.04	5.5	1.08	8.33	1.14	7.5
31	1.61	13	1.38	12.33	1.00	1.14	1.14	7.5
32	1.27	8	1.35	11	1.00	1.14	1.19	12
33	1.08	1	1.04	5.5	1.00	1.14	1.06	3.5
34	1.17	5	1.02	1.25	1.00	1.14	1.06	3.5
35	1.20	6	1.02	1.25	1.00	1.14	1.11	5
36	1.25	7	1.11	8	1.16	11.25	1.15	9
37	1.64	14	1.38	12.33	1.16	11.25	1.52	14
38	1.42	9.5	1.21	10	1.16	11.25	1.12	6
39	1.42	9.5	1.38	12.33	1.08	8.33	1.35	13
40	1.14	3	1.02	1.25	1.00	1.14	1.03	1.5
41	1.11	2	1.07	7	1.00	1.14	1.03	1.5
42	1.44	11	1.14	9	1.16	11.25	1.17	10.5
43	1.15	4	1.02	1.25	1.08	8.33	1.17	10.5

TABLE 7.--Spearman's Rank Order Correlations of Reactions on Guidance of the 1965 Leadership Group to the Three 1974 Groups (Leadership, Job Shift, New Staff) and Between the 1974 Leadership Group and the 1974 New Staff Group.

	Rank Order Correlations Coefficients, r_s			
.05 Value of r_s	1965 Leadership Group & 1974 Leadership Group	1965 Leadership Group & 1974 Job Shift Group	1965 Leadership Group & 1974 New Staff Group	1974 Leadership Group & 1974 New Staff Group
.45	.490	.357	.672	.583

TABLE 7A.--Chi-Square and Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Guidance.

Coefficient of Concordance, W	Chi-Square, X^2	.05 Value, X^2
.74	38.48	22.36

4. Coordination

Of the ninety-six belief statements presented to the respondents, the Coordination category is distinctive in that it produced a spectrum of opinions. Statements 51 and especially 44:

> (51) That coordination is primarily an instructional technique involving individual students. It also includes other activities of a community's distributive education program, such as public relations, research and certain aspects of guidance.
>
> (44) That coordination is the activity which unites all components of the program and without which the distributive education program at any educational level cannot be considered vocational.

received more than nominal disagreement, which is reflected in Table 8. Evidenced also in Table 8 is the concurrence between the three 1974 groups. Contrasting this agreement is the polarity between the 1974 groups and the 1965 Leadership Group.

Statistical evidence of this relationship is provided by Table 9 where the 1965 Leadership Group is compared pairwise with the 1974 groups utilizing Spearman's Rank Order Correlations Coefficients. Without exception these coefficients fail to reach a significant level. However, the pairing of the two 1974 groups (1974 Leadership and 1974 New Staff) more than exceeds that level. A comprehensive overview of the four columns in Table 9 is provided by Table 9A. The concordance displayed is modest due to the 1965 Leadership Groups' autonomy.

Belief statement 44 and the fact that the category Coordination showed no correlation between the 1965 Leadership Group and the three 1974 groups are the areas which must be discussed.

Statement 44 received more disagreement than any other statement in the questionnaire. The omnitude in the wording has much to do with dissent. Specifically the phrases: "all," "without which," "at any," and "cannot be," are cause for the respondents to question their positions on this belief statement. Because it is so drastic, this statement tends to alienate all other facets of distributive education by exhalting Coordination to the predominant position in a distributive education program.

Perusal of the mean scores in Table 8 shows that the 1965 Leadership Group responded with higher (disagreement) scores than the 1974 groups. The movement in recent years to "hands on" experience and individual instruction may have changed the respondent's sentiments on Coordination.

TABLE 8.--The Rank Ordering of Basic Beliefs Within the Coordination Category by the Four Ranking Groups.

44 That coordination is the activity which unites all components of the program and without which the distributive education program at any educational level cannot be considered vocational.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.44	6	2.07	8	1.91	8	1.83	8

45 That the amount of time which distributive cooperative students spend on the job should be realistically appraised so that they will have time and energy to master the other subjects in which they are concurrently enrolled.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.18	1	1.04	2	1.16	4.33	1.05	1

46 That the amount of time which distributive cooperative students spend in school and on the job should be regularly appraised so that the combined time for school and work does not usually exceed the normal work week.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.60	7	1.28	6	1.16	4.33	1.23	5

47 That training sponsors of distributive education cooperative students should be oriented to their responsibilities in providing real-life learning experiences for students on the job. This includes periodic evaluation of the students' occupational experience.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.39	4.5	1.00	1	1.00	1.33	1.07	2.5

TABLE 8.--Continued.

48 That coordinators should be employed by the school system for a sufficient period of time before and after the regular school year so that they may fulfill all of the responsibilities of the job.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.84	8	1.16	3.5	1.00	1.33	1.07	2.5

49 That effective coordination activities provide an opportunity for the teacher-coordinator to help keep his occupational knowledge up to date.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.20	2	1.16	3.5	1.16	4.33	1.19	4

50 That students in the project plan should have, whenever possible, employment experiences which are coordinated and evaluated in terms of students' occupational interests.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.39	4.5	1.26	5	1.00	1.33	1.25	6

51 That coordination is primarily an instructional technique involving individual students. It also includes other activities of a community's distributive education program, such as public relations, research and certain aspects of guidance.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.26	3	1.30	7	1.41	7	1.64	7

SUMMARY OF TABLE 8.--The Rank Ordering of Basic Beliefs Within the Coordination Category by the Four Ranking Groups.

Coordination	1965 Leadership Group Group I		1974 Leadership Group Group II		1974 Job Shift Group Group III		1974 New Staff Group Group IV	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
44	1.44	6	2.07	8	1.91	8	1.83	8
45	1.18	1	1.04	2	1.16	4.33	1.05	1
46	1.60	7	1.28	6	1.16	4.33	1.23	5
47	1.39	4.5	1.00	1	1.00	1.33	1.07	2.5
48	1.84	8	1.16	3.5	1.00	1.33	1.07	2.5
49	1.20	2	1.16	3.5	1.16	4.33	1.19	4
50	1.39	4.5	1.26	5	1.00	1.33	1.25	6
51	1.26	3	1.30	7	1.41	7	1.64	7

TABLE 9.--Spearman's Rank Order Correlations of Reactions on coordination of the 1965 Leadership Group to the Three 1974 Groups (Leadership, Job Shift, New Staff) and Between the 1974 Leadership and the 1974 New Staff Group.

	Rank Order Correlations Coefficients, r_s			
.05 Value of r_s	1965 Leadership Group & 1974 Leadership Group	1965 Leadership Group & 1974 Job Shift Group	1965 Leadership Group & 1974 New Staff Group	1974 Leadership Group & 1974 New Staff Group
.64	.322	(0.292)	.161	.899

TABLE 9A.--Chi-Square and Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Coordination.

Coefficient of Concordance, W	Chi-Square, X^2	.05 Value, X^2
.56	15.68	14.06

5. Curriculum

The rankings of belief statements varied slightly on Curriculum between the 1965 group and the same personnel polled in 1974. Illustrated in Table 11 is a Spearman Rank Order Correlation Coefficient of .866 between the 1965 Leadership Group and the 1974 Leadership Group. This figure when compared to the .05 value of r_s (.64) validates homogeneous thinking. The 1974 Job Shift Group, the smallest group, has a tendency for numerous tied scores, and with a category of eight subjects cannot credibly be handled in the statistical functions of Table 11. Displayed in Table 11 is the divergence of curriculum concepts between the 1965 Leadership Group and the 1974 New Staff Group. In Table 11 r_s (.543) falls under the significance level interpreted as .64. Conjecturing from this result and the previously mentioned relationship between the two leadership groups (1965 and 1974), the supposition can be made that there is little or no agreement between the 1974 Leadership Group and the 1974 New Staff Group. Calculation supports this hypothesis (.490 is less than .64).

The overall relationship among the four groups when shown by Kendall's Coefficient of Concordance, W, is .65 as shown in Table 11A. In addition to this positive relationship using Kendall's W, a Chi-square value of 18.2 for Curriculum displays significant concordance as illustrated in Table 11A.

Reiterated in Table 10 are the aforementioned relationships. The only disagreement shown is in the ranking of belief statements 54 and 56:

> (54) That DECA, the youth organization for high school and post-secondary school students, should be co-curricular in that it should provide opportunities to further develop competencies normally learned in the classroom and on the job. It also provides opportunities to acquire additional competencies, such as leadership and social skills.
>
> (56) That the development of competencies in distributive occupations involves both individual and group instruction.

by the 1974 New Staff Group. Outside of these two statements there is agreement in the category of Curriculum.

Spearman's Rank Order Correlation Coefficient showed the 1974 Leadership Group ranked the belief statements in such a way that no significant correlation is found with the 1974 New Staff Group (see Table 10). Closer examination of Table 10 points out that between the three groups (1965 Leadership, 1974 Leadership and 1974 New Staff) there is agreement on each belief statement except two, 54 and 56. Therefore, in a category with only eight statements, disagreement on two is enough to depict no correlation. This circumstance must be considered when reviewing the figures produced by the statistical functions.

TABLE 10.--The Rank Ordering of Basic Beliefs within the Curriculum Category by the Four Ranking Groups.

52 That the major portion of distributive education curriculum content is derived from functions of marketing.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.68	8	1.23	5.33	1.08	6.5	1.43	8

53 That distributive education curriculums should include, in addition to functions of marketing, the area of personal development including human relations and occupational adjustment; the application of skills in mathematics and communications to distribution; appropriate product or service technology; and basic economic understandings.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.11	2	1.02	2	1.00	1.20	1.15	2.5

54 That DECA, the youth organization for high school and post-secondary school students, should be co-curricular in that it should provide opportunities to further develop competencies normally learned in the classroom and on the job. It also provides opportunities to acquire additional competencies, such as leadership and social skills.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.34	5	1.21	4	1.00	1.20	1.05	1

55 That vocational instruction in distribution and marketing should be based primarily on the local needs and trends in marketing, merchandising, and related management. However, it should also take into account, state, national, and world trade as well as such things as family mobility and occupational relocation.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.42	6	1.23	5.33	1.00	1.20	1.30	5.33

TABLE 10.--Continued.

	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
56 That the development of competencies in distributive occupations involves both individual and group instruction.	1.04	1	1.00	1	1.00	1.20	1.30	5.33
57 That in most distributive occupations judgment, human relations, and communication skills are predominant while manual skills are frequently less important.	1.67	7	1.35	8	1.08	6.5	1.30	5.33
58 That distributive education should provide for correlation with other subject areas such as English, social studies, economics, mathematics, and art, as well as with subjects in other vocational fields.	1.22	3	1.07	3	1.25	8	1.15	2.5
59 That the areas of study concept of distributive education curriculums provides for a flexibility in curriculum organization that makes the depth of instruction depend on occupational objectives and competencies needed by individual students.	1.32	4	1.23	5.33	1.00	1.20	1.23	4

SUMMARY OF TABLE 10.--The Rank Ordering of Basic Beliefs Within the Curriculum Category by the Four Ranking Groups.

Curriculum	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Group I		Group II		Group III		Group IV	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
52	1.68	8	1.23	5.33	1.08	6.5	1.43	8
53	1.11	2	1.02	2	1.00	1.20	1.15	2.5
54	1.34	5	1.21	4	1.00	1.20	1.05	1
55	1.42	6	1.23	5.33	1.00	1.20	1.30	5.33
56	1.04	1	1.00	1	1.00	1.20	1.30	5.33
57	1.67	7	1.35	8	1.08	6.5	1.30	5.33
58	1.22	3	1.07	3	1.25	8	1.15	2.5
59	1.32	4	1.23	5.33	1.00	1.20	1.23	4

TABLE 11.--Spearman's Rank Order Correlations of Reactions on Curriculum of the 1965 Leadership Group to the Three 1974 Groups (Leadership, Job Shift, New Staff) and Between the 1974 Leadership Group and the 1974 New Staff Group.

	Rank Order Correlations Coefficients, r_s			
.05 Value of r_s	1965 Leadership Group & 1974 Leadership Group	1965 Leadership Group & 1974 Job Shift Group	1965 Leadership Group & 1974 New Staff Group	1974 Leadership Group & 1974 New Staff Group
.64	.866	.125	.543	.490

TABLE 11A.--Chi-Square and Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Curriculum.

Coefficient of Concordance, W	Chi-Square, X^2	.05 Value, X^2
.65	18.2	14.06

6. Organization and Administration

A slight positive relationship is denoted for the category Organization and Administration by a Kendall's W of .54 as shown in Table 13A. Similarly, the Chi-square in Table 13A surpasses the .05 value of X^2 by an ample degree (X^2 = 58.32 and .05 value of X^2 = 40.11).

The 1965 Leadership Group, when compared to the three 1974 groups, fairs poorly in an effort to show correlation using Spearman's Rank Order Correlation Coefficient [r_s = .147, (.375), and (.025) when .05 value of r_s = .31]. Contradictory, Table 13 represents the correlation shown by the 1974 Leadership Group and the 1974 New Staff Group (r_s = .571 and .05 value of r_s = .31).

Organization and Administration is the largest category, having 28 belief statements. As shown in Table 12, the 1974 groups returned numerable tied scores due largely to the size of the category. The 1974 groups agreed that belief statement 67:

> That the project plan in distributive education should be provided in those school systems where the need for occupational training cannot be met effectively through the cooperative plan or where there is need for occupational training in addition to that provided by the cooperative plan.

should be placed at the bottom of the category. They also show contiguous reactions to the statement 68:

> That vocational instruction for adults should be available for the entire spectrum of management and non-management employees in distributive occupations at various levels of responsibility from entry through management.

Looking at Table 12 reinforces results of Tables 13A and 13 by showing a few like rankings in all four columns with a concentration in the 1974 groups.

Organization and Aministration is the largest of all categories in this study. With twenty-eight belief statements the size of this category approaches the maximum which can effectively be applied to the Q-sort methodology. This should be considered when reviewing the results of this category.

Belief statement 67 received considerable comment and was ranked at or near the bottom by all four groups. Some respondents commented on the ambiguity of the statement while others were more explicit as to why they disagreed. One comment in particular, made by a respondent, gives insight to its low ranking, "Since the Crawford Study, (the) simulation plan has been introduced. Project plan and simulation are not synonymous."

The 1974 groups had enough like rankings to show concordance between all four groups. Skewing an outcome can be accomplished by a high degree of correlation in any one segment and, therefore, the importance of total examination is reiterated.

TABLE 12.--The Rank Ordering of Basic Beliefs Within the Organization and Administration Category by the Four Ranking Groups.

60 That distributive education should be an integral part of the public school system.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.24	13.5	1.00	1.33	1.16	24.25	1.07	5

61 That distributive education should serve the needs of both the individual student and the business community.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.12	8	1.09	14.5	1.08	20.25	1.17	16

62 That the administrative pattern and exercise of controls for administration of distributive education should be flexible in order to serve the diversified needs of individuals and distributive businesses.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.41	22	1.14	17.33	1.00	1.05	1.38	26

63 That the cooperation of the professional staff at local, state and federal levels is essential to the optimum accomplishment of the goals of the distributive education program.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.05	1	1.07	12.5	1.00	1.05	1.15	12.33

64 That the distributive education program should include preparatory (both cooperative and non-cooperative) and supplementary instruction offered in high school, post-high school and adult courses.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.22	12	1.16	20.5	1.00	1.05	1.29	22.5

TABLE 12.--Continued.

65 That the distributive education program should include instruction for both youth and adults who have a career objective in the field of distribution and who can profit from the instruction.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.07	3	1.00	1.33	1.00	1.05	1.06	2.33

66 That the distributive education program should provide a continuum of educational opportunity that allows individuals to refine or redirect their occupational objectives.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.06	2	1.00	1.33	1.00	1.05	1.06	2.33

67 That the project plan in distributive education should be provided in those school systems where the need for occupational training cannot be met effectively through the cooperative plan or where there is need for occupational training in addition to that provided by the cooperative plan.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.37	19.5	1.30	27	1.25	28	1.41	27

68 That vocational instruction for adults should be available for the entire spectrum of management and non-management employees in distributive occupations at various levels of responsibility from entry through management.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.24	13.5	1.23	24	1.16	24.25	1.33	24

TABLE 12.--Continued.

69 That supervised occupational experiences should be provided for as many distributive education students as possible.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.41	22	1.21	23	1.16	24.25	1.20	18

70 That the distributive education program should reflect training needs and employment opportunities as evidenced by resources such as community surveys, business census and labor force reports, and advisory services.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.11	7	1.02	4.14	1.00	1.05	1.21	19

71 That distributive education for disadvantaged youth requires special planning and articulation with the regular high school and post-high school distributive education offerings.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.32	17	1.33	28	1.08	20.25	1.10	6

72 That a comprehensive high school should include a program of distributive education.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.46	27	1.02	4.14	1.00	1.05	1.03	1

73 That distributive education should be available both to high school graduates and those who did not complete high school.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.70	28	1.11	16	1.00	1.05	1.15	12.33

TABLE 12.--Continued.

74 That a Distributive Education Advisory Committee should give advice in planning, developing, and evaluating the program in each community.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.44	25	1.02	4.14	1.00	1.05	1.11	7

75 That distributive education should cooperate with other vocational services in planning instructional programs for those occupations which cut across fields, each service providing the instruction in which it specializes.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.14	10	1.02	4.14	1.00	1.05	1.14	10.5

76 That criteria for evaluation of the distributive education program should be tentatively established during the planning stage and that the criteria should be revised periodically.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.43	24	1.02	4.14	1.00	1.05	1.06	2.33

77 That periodic follow-up studies of distributive education graduates and drop-outs is essential to the evaluation of the effectiveness of the distributive education program.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.10	5.5	1.07	12.5	1.00	1.05	1.19	17

78 That each state and territory should charge leadership personnel with specific responsibilities for the further development and improvement of the distributive education program.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.09	4	1.14	17.33	1.00	1.05	1.34	25

TABLE 12.--Continued.

79 That participating experiences are essential if the project plan is to be a worthwhile vocational experience.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.45	26	1.28	26	1.00	1.05	1.26	21

80 That the project plan requires that time be allowed in the teacher's schedule to identify, direct and evaluate projects and participating experiences contributing to each student's occupational objective.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.30	16	1.14	17.33	1.00	1.05	1.14	10.5

81 That the project plan requires that time be arranged in the student's schedule to identify, develop and evaluate competencies achieved through projects related to his occupational objective.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.36	18	1.19	22	1.00	1.05	1.12	8.5

82 That because of individualized instruction and the nature of the behavioral outcomes desired, the size of the distributive education class is an important factor.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.13	9	1.26	25	1.00	1.05	1.29	22.5

83 That because of the learning outcomes desired and the demands of program management, the distributive education teacher-coordinator should have more time than the average teacher to plan, prepare and coordinate instruction.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.37	19.5	1.16	20.5	1.08	20.25	1.43	28

TABLE 12.--Continued.

84 That specially designed classroom facilities are highly desirable for the in-school distributive education instructional program.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.41	22	1.04	11	1.16	24.25	1.15	12.33

85 That audio-visual materials are highly desirable for good classroom instruction in distributive education.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.17	11	1.02	4.14	1.00	1.05	1.12	8.5

86 That preparatory training should be available to out-of-school youth and adults seeking to enter, re-enter, or retrain for employment in distribution and marketing.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.10	5.5	1.09	14.5	1.00	1.05	1.16	15

87 That distributive education personnel should carry on such research as is needed to provide information relating to the distributive education program.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.27	15	1.02	4.14	1.08	20.25	1.25	20

SUMMARY OF TABLE 12.--The Rank Ordering of Basic Beliefs Within the Organization and Administration Category by the Four Ranking Groups.

Organization and Administration	1965 Leadership Group Group I		1974 Leadership Group Group II		1974 Job Shift Group Group III		1974 New Staff Group Group IV	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
60	1.24	13.5	1.00	1.33	1.16	24.25	1.07	5
61	1.12	8	1.09	14.5	1.08	20.25	1.17	16
62	1.41	22	1.14	17.33	1.00	1.05	1.38	26
63	1.05	1	1.07	12.5	1.00	1.05	1.15	12.33
64	1.22	12	1.16	20.5	1.00	1.05	1.29	22.5
65	1.07	3	1.00	1.33	1.00	1.05	1.06	2.33
66	1.06	2	1.00	1.33	1.00	1.05	1.06	2.33
67	1.37	19.5	1.30	27	1.25	28	1.41	27
68	1.24	13.5	1.23	24	1.16	24.25	1.33	24
69	1.41	22	1.21	23	1.16	24.25	1.20	18
70	1.11	7	1.02	4.14	1.00	1.05	1.21	19
71	1.32	17	1.33	28	1.08	20.25	1.10	6
72	1.46	27	1.02	4.14	1.00	1.05	1.03	1
73	1.70	28	1.11	16	1.00	1.05	1.15	12.33
74	1.44	25	1.02	4.14	1.00	1.05	1.11	7
75	1.14	10	1.02	4.14	1.00	1.05	1.14	10.5
76	1.43	24	1.02	4.14	1.00	1.05	1.06	2.33
77	1.10	5.5	1.07	12.5	1.00	1.05	1.19	17
78	1.09	4	1.14	17.33	1.00	1.05	1.34	25
79	1.45	26	1.28	26	1.00	1.05	1.26	21
80	1.30	16	1.14	17.33	1.00	1.05	1.14	10.5
81	1.36	18	1.19	22	1.00	1.05	1.12	8.5
82	1.13	9	1.26	25	1.00	1.05	1.29	22.5
83	1.37	19.5	1.16	20.5	1.08	20.25	1.43	28
84	1.41	22	1.04	11	1.16	24.25	1.15	12.33
85	1.17	11	1.02	4.14	1.00	1.05	1.12	8.5
86	1.10	5.5	1.09	14.5	1.00	1.05	1.16	15
87	1.27	15	1.02	4.14	1.08	20.25	1.25	20

TABLE 13.--Spearman's Rank Order Correlations of Reactions on Organization and Administration of the 1965 Leadership Group to the Three 1974 Groups (Leadership, Job Shift, New Staff) and Between the 1974 Leadership Group and the 1974 New Staff Group.

	Rank Order Correlations Coefficients, r_s			
.05 Value of r_s	1965 Leadership Group & 1974 Leadership Group	1965 Leadership Group & 1974 Job Shift Group	1965 Leadership Group & 1974 New Staff Group	1974 Leadership Group & 1974 New Staff Group
.31	.147	(0.375)	(0.025)	.571

TABLE 13A.--Chi-Square and Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Organization and Administration.

Coefficient of Concordance, W	Chi-Square, X^2	.05 Value, X^2
.54	58.32	40.11

7. Teacher Education

There is only one conclusion to be drawn from the rank ordering of belief statements pertaining to Teacher Education in Table 14. The inference is invariably one of consistency regardless of ranking group. Illustrating this consistency are statements 88, 89 and 93 where the four groups differ from total agreement in only one rank. In Table 15, Spearman's Rank Order Correlation Coefficient definitely endorses like opinions on Teacher Education by each of the four paired groups. Table 15A validates what was perceived in Tables 14 and 15. The value of Kendall's W .84 explicitly depicts a strong positive relationship. A Chi-square of 26.88 almost doubles the .05 value of X^2 (15.50) held to be a significant level.

Belief statements 88 through 92 are fundamental, and the respondents found little with which to disagree, regardless of respondent group. The reaction to the remaining belief statements was not as positive, and in particular statements, 93, 94 and 96 generated more than nominal negative reaction.

In Statement 93 the inclusion of adult education as part of the distributive education teacher-coordinator's responsibility at a secondary level drew much controversy and resulted in the statement being ranked low. The statement is worded so that the reader is not certain how the teacher-coordinator is to participate or how this will affect the environment of the cooperative students or why this contact with the community will affect an increase in his knowledge more than another.

The severity of the action recommended in belief statement 94 detracted from the unquestionable validity that at times all personnel need to be refreshed. In-service occupational updating would be a more feasible avenue to follow allowing the professional teacher-coordinator to remain in his chosen position.

According to a respondent, "Item 96 is too general and needs revision with the Carmichael and Samson Studies." It was reversed to read:

> That teacher education for post-secondary instructional personnel should include advance study in those areas needed to develop middle management competencies.

In post-secondary education, students will not fill the entry-level distributive function jobs but will likely be qualified for a higher level. It is logical, as the respondent stated, to train these students for the role they will take in the distributive system.

TABLE 14.--The Rank Ordering of Basic Beliefs within the Teacher Education Category by the Four Ranking Groups.

88 That distributive education teacher-coordinators need specialized training as teachers of marketing and as coordinators of cooperative and project training.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.20	3	1.04	3	1.00	1.33	1.06	3

89 That distributive education student teachers should have student teaching experience in a distributive education program under the supervision of an experienced, well-qualified distributive education teacher-coordinator.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.21	4	1.16	5	1.08	4	1.07	4

90 That distributive education personnel at every level should be currently occupationally knowledgeable in distribution.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.25	5	1.11	4	1.00	1.33	1.02	1

91 That in a changing world of distribution it is essential that both content and teaching methods in distributive education be kept up-to-date.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.01	1	1.00	1	1.16	5	1.03	2

92 That both group and individual instruction should be used in the in-service training of distributive education personnel.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.07	2	1.02	2	1.00	1.33	1.17	5

TABLE 14.--Continued.

93 That the distributive education teacher-coordinator should participate in the adult education program whenever possible, thereby creating a more favorable training environment for cooperative students and increasing their own occupational knowledge.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.72	8	1.38	8	1.25	6	1.46	8

94 That teacher-coordinators should return to a distributive occupation at intervals when occupational updating is needed and advisable.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.57	7	1.23	6	1.33	7.5	1.41	6.5

95 That teacher education certification requirements should permit the distributive education program to capitalize on the availability of potential teaching personnel with a variety of abilities and backgrounds, provided standards are not lowered.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.36	6	1.47	9	1.75	9	1.41	6.5

96 That teacher education for post-secondary instructional personnel should include advanced study in a distributive field or in a distributive function.

1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1.83	9	1.26	7	1.33	7.5	1.58	9

SUMMARY OF TABLE 14.--The Rank Ordering of Basic Beliefs Within the Teacher Education Category by the Four Ranking Groups.

Teacher Education	1965 Leadership Group		1974 Leadership Group		1974 Job Shift Group		1974 New Staff Group	
	Group I		Group II		Group III		Group IV	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
88	1.20	3	1.04	3	1.00	1.33	1.06	3
89	1.21	4	1.16	5	1.08	4	1.07	4
90	1.25	5	1.11	4	1.00	1.33	1.02	1
91	1.01	1	1.00	1	1.16	5	1.03	2
92	1.07	2	1.02	2	1.00	1.33	1.17	5
93	1.72	8	1.38	8	1.25	6	1.46	8
94	1.57	7	1.23	6	1.33	7.5	1.41	6.5
95	1.36	6	1.47	9	1.75	9	1.41	6.5
96	1.83	9	1.26	7	1.33	7.5	1.58	9

TABLE 15.--Spearman's *Rank Order Correlations* of Reactions on Teacher Education of the 1965 Leadership Group to the Three 1974 Gropus (Leadership, Job Shift, New Staff) and Between the 1974 Leadership Group and the 1974 New Staff Group.

	Rank Order Correlations Coefficients, r_s			
.05 Value of r_s	1965 Leadership Group & 1974 Leadership Group	1965 Leadership Group & 1974 Job Shift Group	1965 Leadership Group & 1974 New Staff Group	1974 Leadership Group & 1974 New Staff Group
.60	.867	.599	.780	.821

TABLE 15A.--Chi-Square and Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Teacher Education.

Coefficient of Concordance, W	Chi-Square, X^2	.05 Value, X^2
.84	26.88	15.50

TABLE 16.--Summary of Coefficients of Concordance of Reactions of 1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group to Basic Beliefs Concerning Distributive Education.

Categoreis of Belief	Coefficient of Concordance, W	X^2	.05 Value of X^2
Definitions	1.00	68.0	27.58
Objectives	.45	18.0	18.30
Guidance	.74	38.48	22.36
Coordination	.56	15.68	14.06
Organization and Administration	.54	58.32	40.11
Teacher Education	.84	26.88	15.50

TABLE 17.--*Summary of Rank Order Correlations* of Reactions of the 1965 Leadership Group to the Three 1974 Groups (Leadership, Job Shift, New Staff) and Between the 1974 Leadership Group and the 1974 New Staff Group.

Categories of Beliefs	Rank Order Correlations Coefficients, r_s				
	1965 Leadership Group and 1974 Leadership Group	1965 Leadership Group and the 1974 Job Shift Group	1965 Leadership Group and the 1974 New Staff Group	1974 Leadership Group and the 1974 New Staff Group	.05* Value of r_s
Definitions	0.466	0.429	0.577	0.648	.39
Objectives	0.306	0.531	0.180	0.350	.54
Guidance	0.490	0.357	0.672	0.583	.45
Coordination	0.322	(0.292)	0.161	0.899	.64
Curriculum	0.866	0.125	0.543	0.490	.64
Organization and Administration	0.147	(0.375)	(.025)	0.571	.31
Teacher Education	0.867	0.599	0.780	0.821	.60

See Appendix A, Table 18.

Status of the Nine Hypotheses Following the Analysis of the Results

The null hypotheses 1-7 are tested using the data found in Table 16. Table 16 contains Kendall's W and the Chi-square value for each of the seven categories. To test the hypothesis stated in Chapter I, the Chi-square value for each coefficient of concordance, W, was calculated. The resultant figure was compared to the .05 value of Chi-squared derived from a standard chi-square table. If X^2 was equal to or greater than the .05 value of significance recorded from the table, agreement was indicated.

The null hypotheses 1-7 were:

1. The rankings of the eighteen statements of basic belief in category one, Definitions, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, 1.00, yielded a X^2 equal to 68.0 which was greater than the .05 value, 27.58.

2. The rankings of the eleven statements of basic belief in category two, Objectives, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W. This hypothesis was not rejected. The coefficient of concordance, .45, yielded a X^2 equal to 18.0 which was less than the .05 value, 18.30.

3. The rankings of the fourteen statements of basic belief in category three, Guidance, by the four groups of respondents

(1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .74, yielded a X^2 equal to 38.48 which was greater than the .05 value, 22.36.

4. The rankings of the eight statements of basic belief in category four, Coordination, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .56, yielded a X^2 equal to 15.68 which was greater than the .05 value, 14.06.

5. The rankings of the eight statements of basic belief in category five, Curriculum, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .65, yielded a X^2 equal to 18.2 which was greater than the .05 value, 14.06.

6. The rankings of the twenty-eight statements of basic belief in category six, Organization and Administration, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .54, yielded a X^2 equal to 58.32 which was greater than the .05 value, 40.11.

7. The rankings of the nine statements of basic belief in category seven, Teacher Education, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W. This hypothesis was rejected. An example of the Computations for the Kendall's Coefficient of Concordance, W, and Chi-square values for this category are given below. Complete computations of Kendall's W are given in Appendix D, Tables 33-39.

The formula used to compute Kendall's W is

$$W = \frac{S}{1/12\ K^2\ (N^3-N)} \quad \text{(FORMULA 1)}$$

Where

S = sum of the squares of the observed deviations from the mean of R_j; that is

$$S = \Sigma\ (R_j - \frac{\Sigma R_j}{N})^2$$

K = number of sets of rankings

N = number of entities ranked

$1/12\ K^2(N^3-N)$ = maximum possible sum of squared deviations[2]

The following rank ordering by the four ranking groups was taken from the summary of Table 14 in order to calculate W for the category of Teacher Education.

---

[2]Sidney Siegel, op. cit., p. 231.

Basic Belief Number	Rank: 1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
88	3	3	1.33	3	10.33
89	4	5	4	4	17.
90	5	4	1.33	1	11.33
91	1	1	5	2	9
92	2	2	1.33	5	10.33
93	8	8	6	8	30
94	7	6	7.5	6.5	27
95	6	9	9	6.5	30.5
96	9	7	7.5	9	32.5

The total of R_j is 177.99 and the mean is $\frac{177.99}{9}$ which equals 19.77

$$S = (10.33-19.77)^2 + (17-19.77)^2 + (11.33-19.77)^2 +$$

$$(9-19.77)^2 + (10.33-19.77)^2 + (30-19.77)^2 +$$

$$(27-19.77)^2 + (30.5-19.77)^2 + (32.5-19.77)^2$$

$$S = 807.21$$

Thus

$$W = \frac{807.21}{1/12\ (16)\ (720)} = \frac{807.21}{960} = .84$$

With a coefficient of concordance of .84 Teacher Education displays a strong positive relationship between the four groups.

To obtain the Chi-square from a Kendall's W of .84 we must do the following:

When N (the number of belief statements ranked) is larger than 7 the expression given in formula 2 is approximately distributed as Chi-square with

$$df = N - 1$$

$$X^2 = \frac{S}{1/12\ KN\ (N+1)} \qquad \text{(FORMULA 2)}$$

. . . observe that

$$\frac{S}{1/12\ KN\ (N+1)} = K(N-1)$$

and therefore $X^2 = K(N-1)W.$[3]

For the category Teacher Education

$$K = 4$$

$$N = 9$$

$$W = .84$$

Thus

$$X^2 = 4(8)(.84)$$

$$= 32\ (.84)$$

$$= 26.88$$

To find out if that value is one of agreement, the Chi-square value is compared with a 0.5 value, 15.50, derived from a Chi-square table. The Chi-square value obtained, 26.88, is greater than the 0.5 value, 15.50, therefore the hypothesis was rejected.

---

[3]Ibid., p. 236.

Null hypotheses 8 and 9 are tested using data in Table 17. Table 17 contains four columns of computed rank order correlation coefficients and a fifth column containing the .05 value which must be reached to show correlation.

The null hypotheses 8 and 9 were:

8. The rank order correlation coefficient of reactions by the 1965 Leadership Group are not related when compared pairwise with the reactions of (a) the 1974 Leadership Group (b) the 1974 Job Shift Group and (c) the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient. This hypothesis was not rejected.

In Table 17 the three columns significant to this hypothesis surpass the .05 value of r_s in only 8 of the 21 possible incidents. The first column, relevant to part (a) of the above hypothesis, had four of seven categories surpass the .05 value. The second column, relevant to part (b) of the above hypothesis, had only one of seven categories surpass the .05 value. The third column, relevant to part (c) of the above hypothesis, had three of the seven categories surpass the .05 value.

9. The rank order correlations of reactions by the 1974 Leadership Group are not related when compared with the reactions of the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient. This hypothesis was rejected.

In Table 17 the column significant to this hypothesis surpasses the .05 value of r_s in 5 of the 7 possible incidents.

A sample computation of Spearman's Rank Order Correlation Coefficient for the pairing 1965 Leadership Group and 1974 Leadership in the category of Coordination follows. For complete Spearman's Rank Order Correlation Coefficient computation, see Appendix D, Tables 26 to 32.

$$r_s = 1 - \frac{\sigma\Sigma d^2}{n^3-n} \qquad \text{(Spearman's Rank Order Correlation)}$$

n = the number of subjects

Σd^2 = the sum of the squared differences between subjects' ranks.

The following rank ordering of basic beliefs by two ranking groups was taken from the summary of Table 8 in order to calculate r_s for the category of Coordination.

Basic Belief Number	1974 Leadership Group	1974 Leadership Group	d_i	d_i^2
44	6	8	2	4
45	1	2	1	1
46	7	6	1	1
47	4.5	1	3.5	12.25
48	8	3.5	4.5	20.25
49	2	3.5	1.5	2.25
50	4.5	5	.5	.25
51	3	7	4	16

$$\Sigma d_i^2 = 57$$

$$r_s = 1 - \frac{\sigma\Sigma\, d^2}{n^3-n}$$

$$= 1 - \frac{6(57)}{(8)^3-8}$$

$$= 1 - \frac{342}{504}$$

$$= .322$$

Summary and Conclusion of Results

In this chapter the results of data collected from leaders in distributive education polled in 1974 have been displayed. These leaders were questioned concerning 96 belief statements used in the Crawford Study of 1965. Tables 2 through 17 contain the results for the seven categories (Definitions, Aims and Objectives, Guidance, Coordination, Curriculum, Administration and Teacher Education). In each of these categories, the belief statements were ranked using their mean. These resultant tables consist of four columns of means and ranks, one for each of the following: (1) 1965 Leadership Group (2) 1974 Leadership Group (3) 1974 Job Shift Group (4) 1974 New Staff Group.

Earlier in this chapter each of these categories was analyzed using statistical evidence provided by the functions, Chi-square, Kendall's Coefficient of Concordance and Spearman Rank Order Correlation Coefficient. These results are contained in Tables 16 and 17. The computed results are graphically substantiated in Figure 2 and Figure 3. These scatter diagrams of Definitions and Objectives, polar in outcome, symbolically display the randomness of the results. In Figure 2 the linear pattern reiterates the strong correlation between the four groups in Definitions. Similarly, Figure 3 shows little pattern which ratifies the random thinking in the category, Objectives, observed in the computations.

The null hypotheses presented in Chapter I are also dealt with in this chapter. Of the nine hypotheses, only two were not rejected.

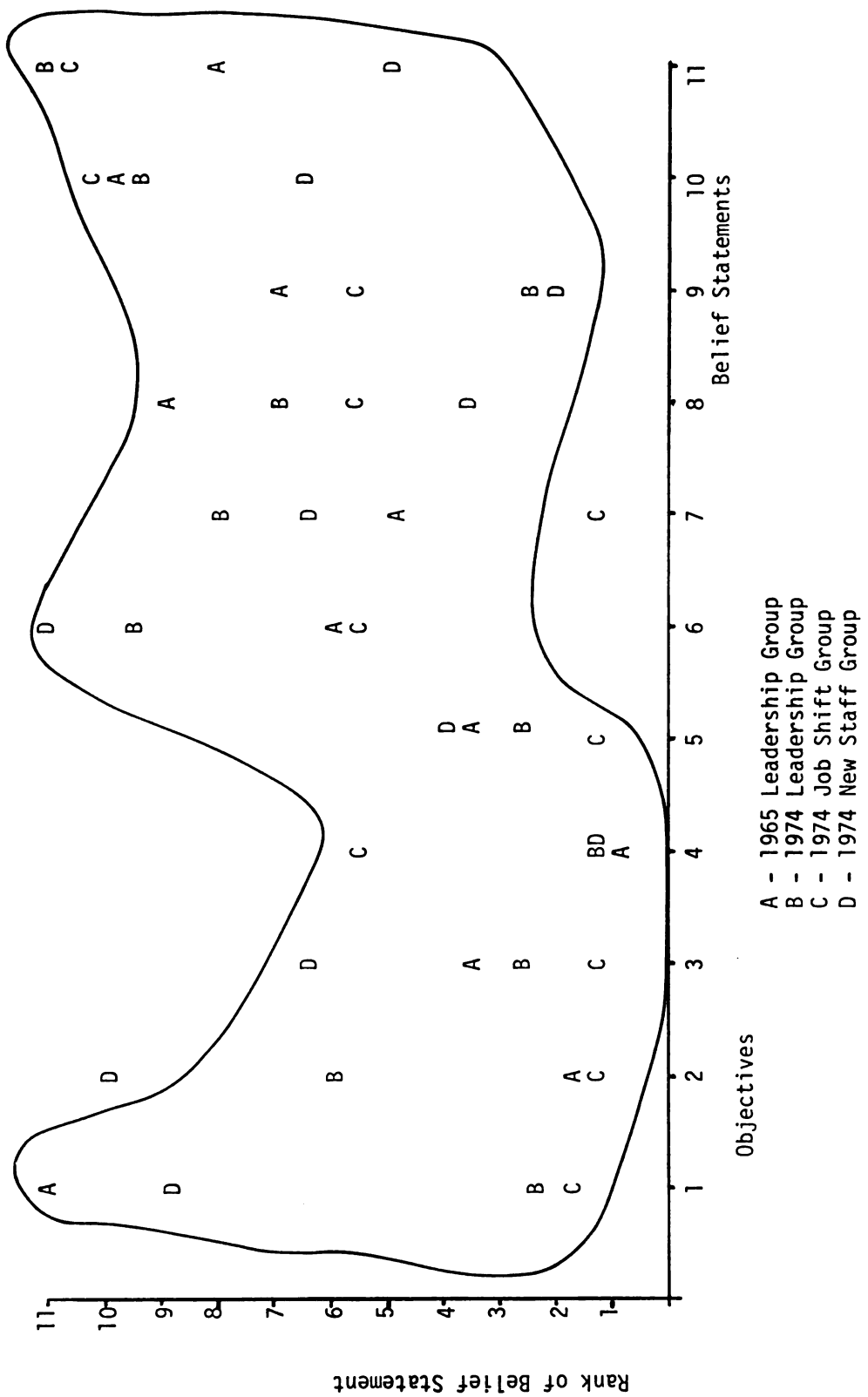


Figure 2.--Definitions--Belief Statements.

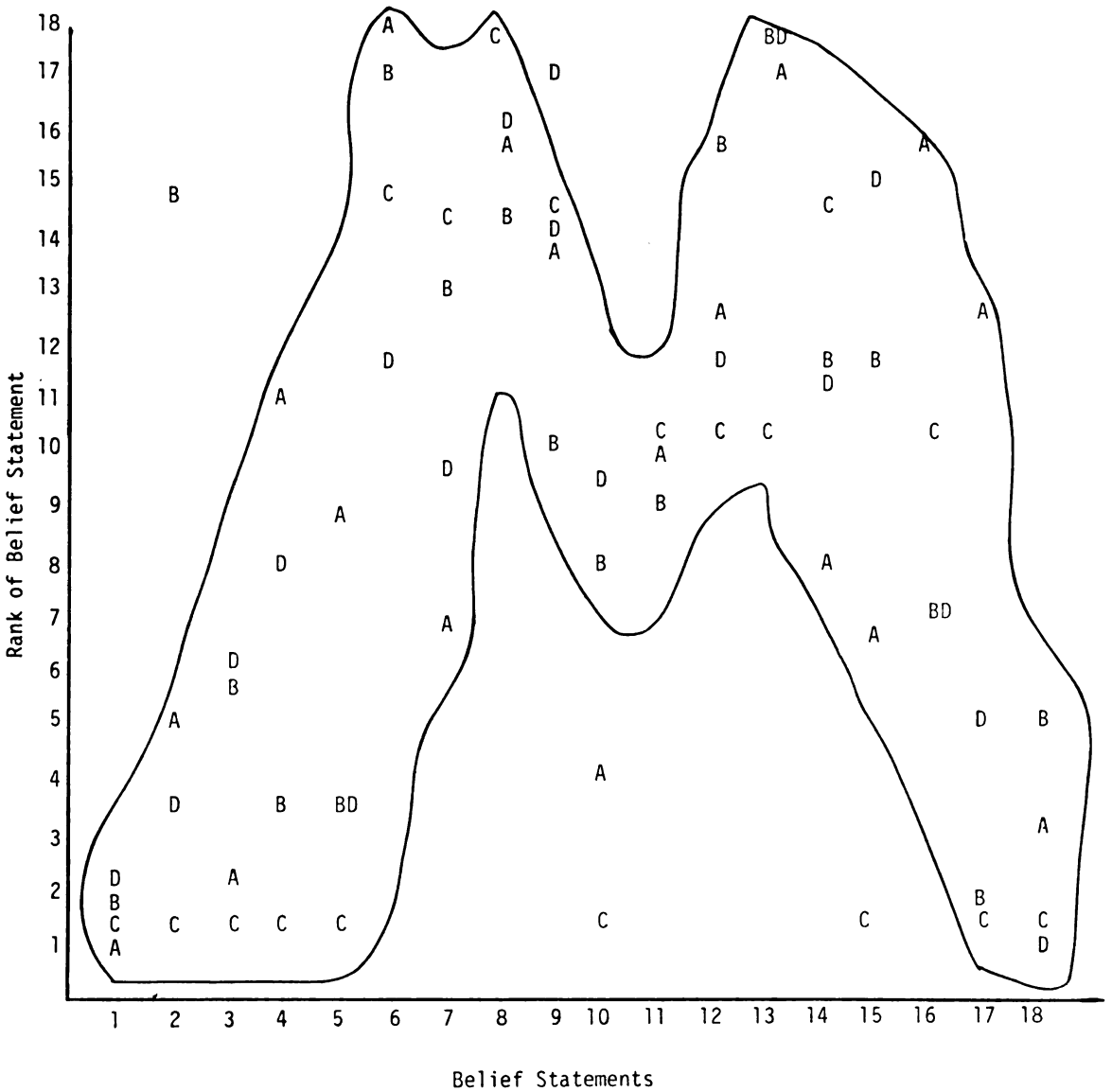


Figure 3.--Objectives--Belief Statements.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Statement of the Problem

The problem in this study is to replicate the Crawford Study by constructing a current philosophy of distributive education through validating a set of basic beliefs concerning definitions, aims and objectives, guidance, coordination, curriculum, administration and teacher education.

Hypotheses to be Tested

Nine hypotheses were stated and tested.

The following hypotheses stated in the null form were tested using Chi-square in this study:

1. The rankings of the eighteen statements of basic belief in category one, Definitions, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group, and 1974 New Staff Group) are not related as measured by Kendall's W.

2. The rankings of the eleven statements of basic belief in category two, Objectives, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

3. The rankings of the fourteen statements of basic belief in category three, Guidance, by the four

groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

4. The rankings of the eight statements of basic belief in category four, Coordination, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

5. The rankings of the eight statements of basic belief in category five, Curriculum, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

6. The rankings of the twenty-eight statements of basic belief in category six, Organization and Administration, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

7. The rankings of the nine statements of basic belief in category seven, Teacher Education, by the four groups of respondents (1965 Leadership Group, 1974 Leadership Group, 1974 Job Shift Group and 1974 New Staff Group) are not related as measured by Kendall's W.

In addition:

8. The rank order correlations of reactions by the 1965 Leadership Group are not related when compared pairwise with the reactions of (a) the 1974 Leadership Group (b) the 1974 Job Shift Group and (c) the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient.

9. The rank order correlations of reactions by the 1974 Leadership Group are not related when compared with the reactions of the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient.

Purpose of the Study

The primary purpose of this study is to compare the philosophies held by distributive education personnel in 1965 and the

current philosophies held by the same personnel who have remained in their respective job classifications. This is done to define a current perspective of the philosophy of distributive education.

The secondary purpose of this study is to compare the philosophies of distributive education personnel in 1965 with the philosophies of (1) personnel in the original group who transferred or shifted job classifications and (2) new personnel hired to replace respondents in the original group due to normal attrition between 1965 and 1974. This is done to define a current perspective of the philosophy of distributive education.

In addition, a comparison is made between the 1974 Leadership Group and the 1974 New Staff Group to define a current perspective of the philosophy of distributive education.

Hopefully, this study being a replication of the 1965 Crawford Study, will produce findings similar to those produced in 1965. The findings of the 1965 Crawford Study ". . . have implications for all phases of the distributive education program and should have a bearing on other vocational educational fields as well. The fact that the vast majority of the leadership in distributive education has agreed upon definitions, aims and objectives, curriculum, guidance, coordination, administration, and teacher education as applied to this field indicates that the philosophy of distributive education expressed in these findings can serve as a theoretical structure on which not only this research but related research can be erected."[1]

---

[1]Lucy C. Crawford, op. cit., pp. 37-38.

Methods and Findings

Defining the population as (1) participants of the 1965 Crawford study, (2) the same personnel who have remained in their respective job classifications since 1965, (3) personnel who have shifted jobs since 1965 and (4) new staff persons added to replace those lost through attrition since 1965, this study tests nine hypotheses concerning the relationship between the four groups. The sample returned was sufficiently significant to provide sound data for calculation of means, Spearman's Rank Order Correlation Coefficients, Kendall's W and Chi-square representative of the total population. The Q-methodology used in the Crawford study as well as this study is very effective, as is substantiated by numerous studies.

The raw data collected from the four groups was transformed into usable results by use of various aforementioned statistical functions. These results were then used to test the nine hypotheses established earlier in the study. Of these nine hypotheses stated in the null form, seven were rejected.

This study conclusively tests the following nine hypotheses:

1. The rankings of the eighteen statements of basic belief in category one, Definitions, by the four groups of respondents are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, 1.00, yielded a X^2 equal to 68.0 which was greater than the .05 value, 27.58.

2. The rankings of the eleven statements of basic belief in category two, Objectives, by the four groups of respondents are not related as measured by Kendall's W. This hypothesis was not rejected. The coefficient of concordance, .45, yielded a X^2 equal to 18.0 which was less than the .05 value, 18.30.

3. The rankings of the fourteen statements of basic belief in category three, Guidance, by the four groups of respondents are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .74, yielded a X^2 equal to 38.48 which was greater than the .05 value, 22.36.

4. The rankings of the eight statements of basic belief in category four, Coordination, by the four groups of respondents are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .56, yielded a X^2 equal to 15.68 which was greater than the .05 value, 14.06.

5. The rankings of the eight statements of basic belief in category five, Curriculum, by the four groups of respondents are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .65, yielded a X^2 equal to 18.2 which was greater than the .05 value, 14.06.

6. The rankings of the twenty-eight statements of basic belief in category six, Organization and Administration, by the four groups of respondents are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .54, yielded a X^2 equal to 58.32 which was greater than the .05 value, 40.11.

7. The rankings of the nine statements of basic belief in category seven, Teacher Education, by the four groups of respondents are not related as measured by Kendall's W. This hypothesis was rejected. The coefficient of concordance, .84, yielded a X^2 equal to 26.88 which was greater than the .05 value, 15.50.

8. The rank order correlation coefficient of reactions by the 1965 Leadership Group are not related when compared pairwise with the reactions of (a) the 1974 Leadership Group (b) the 1974 Job Shift Group and (c) the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient. This hypothesis was not rejected. In Table 17 the three columns significant to this hypothesis surpass the .05 value of r_s in only 8 of 21 possible incidents. The first column, relevant to part (a) of the above hypothesis, had four of seven categories surpass the .05 value. The second column, relevant to part (b) of the above hypothesis, had only one of seven categories surpass the .05 value. The third column, relevant to part (c) of the above hypothesis, had three of the seven categories surpass the .05 value.

9. The rank order correlations of reactions by the 1974 Leadership Group are not related when compared with the reactions of the 1974 New Staff Group using Spearman's Rank Order Correlation Coefficient. This hypothesis was rejected. In Table 17 the column significant to this hypothesis surpasses the .05 value of r_s in 5 of the 7 possible incidents.

Conclusions

The findings reported in Chapter IV provided a basis for the following conclusions. These conclusions are an analysis of the inferences drawn from the acceptance or rejection of the nine hypotheses.

1. Null Hypothesis 1 - concerning Definitions. The rejection of this hypothesis by a sizable margin emphasizes that regardless of respondent group, the terminology used in distributive education is agreed upon throughout the 1974 respondent groups as it was with the 1965 Leadership Group.

2. Null Hypothesis 2 - concerning Objectives. This hypothesis was not rejected. The reason for disagreement in this category was centered around several belief statements which showed quite different rankings from 1965 to 1974. The open-system of education is more readily accepted in the 1974 groups than in the 1965 groups as shown in the ranking of belief statement 27.

3. Null Hypothesis 3 - concerning Guidance. This hypothesis was rejected. The four respondent groups agreed on how the role of guidance fits into a distributive education program regardless of respondent group.

4. Null Hypothesis 4 - concerning Coordination. This hypothesis was rejected. Coordination, even though the hypothesis was rejected, is changing as a facet of the distributive education program. The three 1974 groups showed much agreement among themselves while the 1965 Leadership Group was not in concurrence with

the other three groups. The 1965 Leadership group differed in nearly every rank.

5. Null Hypothesis 5 - concerning Curriculum. This hypothesis was rejected. The four groups responding to belief statements on Curriculum have no significant differences regardless of respondent group.

6. Null Hypothesis 6 - concerning Organization and Administration. This hypothesis was rejected. The functions and aims of the leaders in distributive education in 1965 are the same as those questioned in 1974 in the area of Organization and Administration. Mention of the project plan aiding or taking the place of the cooperative plan in statement 67 drew much disagreement.

7. Null Hypothesis 7 - concerning Teacher Education. This hypothesis was rejected. The four respondent groups all agreed that specialized education of the teacher-coordinator is essential in the distributive education program.

8. Null Hypothesis 8 - concerning correlation between the 1965 Leadership Group and the three 1974 respondent groups. This hypothesis was not rejected. The fact that no significant correlation was found in the ranking of belief statements indicates that certain areas of distributive education are changing. This change is not drastic but it is present and illustrates a non-stagnant approach by the respondents to the philosophy of distributive education. More emphasis on the individual namely, performance objectives and explicit student career goals can be interpreted from the results in Chapter IV.

9. Null Hypothesis 9 - concerning correlation between the 1965 Leadership Group and the 1974 New Staff Group. This hypothesis was rejected. The personnel in distributive education in 1974, whether present in 1965 or added since then, agree on a philosophy of distributive education as it ought to be.

Implications

The foremost implication was that the "Philosophy of Distributive Education" formulated in 1965 was consistent with the findings of this study. There were differences but not to the extent that might infer a change in philosophy.

The mean score on most belief statements regardless of category was much higher in the 1965 Leadership Group than in any of the 1974 groups. This finding may be due largely to the fact that the belief statements that were questioned in 1974 are the incumbent philosophy and are reviewed now in a higher esteem than in 1965. The range of the response did not change the rankings of the belief statements. The range, in Definitions for the 1974 New Staff Group was (1.01, 1.33) as compared to the 1965 Leadership Group (1.04, 1.61) which had many higher means. Spearman's Rank Order Correlation Coefficient displays similar rankings regardless of the situation.

The implications of this study by category follows.

Definitions

There have been no major new theories introduced in the field of distributive education that would make the respondents

change their reactions dramatically since 1965. This implies that current personnel in distributive education use these definitions as a foundation for their programs and in every sense, "speak the same language."

Objectives

The changing views of society towards the importance of vocational education brought along an increased input of monies from federal, state and local governments which have changed the reactions in this category spectacularly. New legislation introduced since 1965, (for example, the 1968 Amendmends to the Vocational Education Act), has mandated changes in this area.

Guidance

This category implied that every effort should be made to continue the guidance and counseling assistance to both secondary students and adults. This guidance should come from within the distributive education program in addition to the guidance provided by the conventional counseling department. Guidance will increase students' awareness as to the opportunities and careers in distribution and maketing that are available to them.

Coordination

Rapid growth and increased emphasis in the area of coordination are two implications which can be extrapolated from our findings. Since 1965, when coordination was not as wide spread as it is today, an increasing number of students and distributive educators

has become more involved in the real world. The business community is vibrant, volatile and thus not easy to categorize and incorporate into text. Strikes are increasing in both public and private sectors of business. Motivation, job satisfaction and interpersonnel relationships are areas in which both the individual employee and the employer feel increasing consideration must be given. Co-op fulfills the needs of students to gain on-the-job training, and the results returned stress the educator's awareness of this situation.

Curriculum

Once a curriculum is developed by an educator into a distributive education program, radical departure from that curriculum is unlikely. The curriculum being adopted by the members entering distributive education since 1965 differs from that subscribed to prior to 1965. Development of the social amenities, human relations and occupational adjustment are fields previously not included as common components in a distributive education curriculum.

Organization and Administration

In order to insure that distributive education remains a quality program, it is important that standards of evaluation are established and adhered to. These standards should include periodic follow-up studies, the use of advisory committees, the inclusion of special planning for the disadvantaged youth, and the use of specially designed classroom facilities which incorporate audio visual techniques.

Teacher Education

The importance of providing today's youth with relevant occupational training requires teachers in distributive education to have specialized training. Current skills and techniques should be acquired by the teachers in addition to some related work experience.

Recommendations

1. It would be wise for individuals replicating this study to avoid the problems encountered in this study with the Job Shift Group. This group was not large enough to eliminate tied scores which skewed the rankings.

2. Future researchers should think about updating "The Philosophy of Distributive Education," which would benefit the modern distributive education program. To facilitate the development of a still viable philosophy, the future investigator must take the following directions from this study. A. Statements which were pointed out in the body of this text that aroused comment or ranked consistently low or possessed a high mean or displayed no correlation in ranking between 1965 and 1974 are prime candidates for work. B. Rewording belief statements, eliminating obsolete (but still valid) belief statements and interjecting new techniques and jargon into additional belief statements would constitute a work path essential in building a new philosophy of distributive education as it "ought to be." C. This reconstructed package should then be presented to the leaders in distributive

education using a technique identical to the one used in this study. This would demonstrate whether the distributive education community has a consensus of thinking on aspects of distributive education innovated since 1965.

3. This study should be used by members of distributive education programs. Each member should isolate the belief statements of particular concern to themselves. Once this is done the distributive education educator should see how these statements can be incorporated into the present distributive education program. This would insure that a more than one dimensional approach is established in structuring a distributive education program.

APPENDICES

APPENDIX A

THE .05 VALUE OF SPEARMAN'S RANK ORDER CORRELATION COEFFICIENT FOR VALUES 4 THROUGH 28

APPENDIX A

The following table is a supplement to Table 17 in Chapter IV. The .05 value of r_s (Spearman's rank order correlation coefficient) were taken from Table 18. An illustration of the use of Table 18 follows:

In category one, Definitions, N (the number of questions in the category) equals 18. The .05 significance level of r_s equals .39. Spearman's rank order correlation coefficient for the compared reactions of 1965 Leadership Group and 1974 Leadership Group (in Table 3) equals .466. Since .466 is greater than .39, the .05 level of significant degree of agreement between the two rating groups concerning Definitions may be drawn.

TABLE 18.--Table of Critical Values of r_s, the Spearman Rank Order Correlation Coefficient.

N	Significance Level . . . of r_s
	.05 . . .
4	1.00
5	.90
6	.82
7	.71
8	.64
9	.60
10	.56
12	.50
14	.45
16	.42
18	.39
20	.37
22	.35
24	.34
26	.32
28	.31

*E. G. Olds, "Distributions of Sums and Squares of Rank Differences for Small Numbers of Individuals," Ann. Math. Statist. IX (1938): 133-148.

APPENDIX B

FORM LETTERS AND DISTRIBUTION SHEET MAILED TO RESPONDENTS

APPENDIX B

FORM A

Thomas A. Doonan
4064 W. Orchard Hill Dr.
Bloomfield Hills, Mi 48013

In 1965 you and other leaders in distributive education throughout the United States were polled as to your beliefs concerning a selected ninety-six statements pertaining to various topics in your educational field. Each of the ninety-six statements were hypothesis of beliefs that contained seven categories: (1) Definitions, (2) Objectives, (3) Guidance, (4) Coordination, (5) Curriculum, (6) Organization and Administration, and (7) Teacher Education. This poll established a philosophy of distributive education "as it ought to be," and the report, "A Philosophy of Distributive Education" was written by Lucy C. Crawford.

I am presently replicating this study and plan to compare the philosophies held by distributive education personnel contacted in 1965 under the Crawford study and the current philosophies held by same personnel whom I am able to contact in 1974.

As a member of the above group, I would appreciate your cooperation in completing the enclosed survey.

Enclosed you will find: (1) an instruction sheet; (2) ninety-six statements of basic beliefs on distributive education; and (3) an answer sheet where you can check your reaction.

Please follow the instructions carefully. Note that there is no time limit, but it should take no longer than forty-five minutes to finish the survey. Please return the completed answer sheet in the enclosed envelope.

Thank you for taking the time to help further the growth of distributive education.

Very truly yours,

Thomas A. Doonan

FORM B

Thomas A. Doonan
4064 W. Orchard Hill Dr.
Bloomfield Hills, MI 48013

In 1965 leaders in distributive education throughout the United States were polled as to their beliefs concerning a selected ninety-six statements pertaining to various topics in their educational field. Each of the ninety-six statements were hypothesis of beliefs that contained seven categories: (1) Definitions, (2) Objectives, (3) Guidance, (4) Coordination, (5) Curriculum, (6) Organization and Administration, and (7) Teacher Education. This poll established a philosophy of distributive education "as it ought to be," and the report, "A Philosophy of Distributive Education" was written by Lucy C. Crawford.

I am presently replicating this study and plan to compare the philosophies held by distributive education personnel contacted in 1965 under the Crawford study and the current philosophies held by the same personnel whom I am able to contact in 1974. One of the secondary purposes of my study is to compare the philosophies of distributive education personnel in the 1965 Crawford study to the philosophies of new personnel hired to replace respondents in the original group due to normal attrition between 1965 and 1974.

As a member of the above group, I would appreciate your cooperation in completing the enclosed survey.

Enclosed you will find: (1) an instruction sheet; (2) ninety-six statements of basic beliefs on distributive education; and (3) an answer sheet where you can check your reaction.

Please follow the instructions carefully. Note that there is no time limit, but it should take no longer than forty-five minutes to finish the survey. Please return the completed answer sheet in the enclosed envelope.

Thank you for taking the time to help further the growth of distributive education.

Very truly yours,

Thomas A. Doonan

INSTRUCTION SHEET FOR BASIC BELIEFS CONCERNING DISTRIBUTIVE EDUCATION

You have received ninety-six statements of basic beliefs regarding the distributive education program as it ought to be. You are to indicate your agreement or disagreement, with each statement by placing an "X" in the appropriate blank.

Agree	Partially Agree	Neutral	Partially Disagree	Disagree
( )	( )	( )	( )	( )

Read the statements (with the words "I believe" prefacing them) and mark the blank that best describes your reaction.

You may change your answer as often as you like. After you have finished please check your answer sheet, making sure all ninety-six statements have been answered.

Please return the completed answer sheet in the enclosed envelope as soon as possible.

Your cooperation is appreciated.

APPENDIX C

NINETY-SIX BELIEF STATEMENTS MAILED TO RESPONDENTS

TABLE 19.--Statements of Basic Beliefs Concerning Definitions.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
01	That distributive education is a vocational instructional program designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation or an occupation requiring competency in one or more of the marketing functions.	1.04	1.00	1.00	1.02
02	That distributive education, as a vocational program, offers instruction in marketing, merchandising, related management, and personal development.	1.27	1.26	1.00	1.05
03	That distributive occupations are those occupations followed by persons engaged primarily in the marketing or merchandising of goods and services, at both management and non-management levels.	1.08	1.07	1.00	1.10
04	That a distributive education teacher-coordinator is a member of the local school staff who teaches distributive and related subject matter to students preparing for employment and coordinate classroom instruction with on-the-job training or with occupationally oriented learning activities of students. He is responsible for the distributive education program in the school. His responsibilities for adult distributive education may vary.	1.37	1.04	1.00	1.15

TABLE 19.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
05	That the distributive education cooperative plan is an organized pattern of instruction which involves regularly scheduled part-time employment and which gives students an opportunity to apply classroom learnings in practice. It enables them to develop occupational competencies through training on jobs related to their distributive occupational interests.	1.33	1.04	1.00	1.05
06	That the distributive education project plan is an organizational pattern of instruction which involves a series of selected learning activities or projects related to the field of marketing, merchandising, and management and which are related to a student's occupational interests.	1.61	1.38	1.16	1.19
07	That distributive education preparatory instruction, whether under the project plan or as part of the cooperative plan, is instruction which prepares youth or adults for entry and advancement in a distributive occupation or in an occupation requiring distributive competencies.	1.31	1.21	1.16	1.16

TABLE 19.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
08	That distributive education supplementary instruction is instruction for distributive workers wishing to refresh, update, or upgrade competencies needed in their distributive employment. It is usually provided on a part-time basis.	1.53	1.26	1.33	1.28
09	That coordination is the process of organizing, developing, and maintaining effective relationships among all groups involved in the distributive education program to the end that the student receives the best possible preparation for a career in distribution.	1.40	1.16	1.16	1.24
10	That the cooperative method in distributive education is a means by which an organized sequence of on-the-job learning experiences to develop competencies related to each student's distributive occupational interest is correlated with classroom instruction.	1.21	1.11	1.00	1.16
11	That in distributive education participating experiences are learning experiences which focus on activities of distributive occupations and decision-making situations in distribution.	1.35	1.14	1.08	1.29

TABLE 19.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
12	That the project method is a means by which classroom instruction is correlated with a series of group and/or individually designed learning activities and projects related to a student's occupational interest.	1.39	1.35	1.08	1.19
13	That a project in the distributive education project plan is a combination of organized classroom and community learning activities related to an individual's distributive occupational interests. The length of time to complete the project depends upon the ability of the individual learner.	1.60	1.50	1.08	1.33
14	That a distributive occupational objective is a current career goal, selected by the student, the preparation for which is the purpose for his vocational instruction in distribution and marketing.	1.32	1.19	1.16	1.19
15	That Distributive Education Clubs of America is a youth organization providing a program of activities which complements and enriches distributive curriculums.	1.31	1.19	1.00	1.25

TABLE 19.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
16	That an Advisory Committee for distributive education is a group of persons representative of both the school and the business community which gives recommendations that may be used for the development and improvement of the distributive education program. School representatives are ex-officio members.	1.53	1.09	1.08	1.11
17	That a Training Sponsor is the person in a distributive organizatin designated to be responsible for training and supervising the distributive education student on his job. He works directly with the distributive education coordinator.	1.39	1.00	1.00	1.06
18	That a Training Station is the place of employment of the distributive education student where he receives on-the-job training and supervison by his employer and/or training sponsor.	1.17	1.07	1.00	1.01

TABLE 20.--Statements of Basic Beliefs Concerning Aims and Objectives.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
19	That preparation for gainful employment and for advancement in a distributive occupation is the primary goal of the distributive education program.	1.28	1.02	1.08	1.16
20	That the distributive education program should engender an understanding and appreciation of the American private enterprise system as a cornerstone of the American Democracy.	1.08	1.04	1.00	1.17
21	That the distributive education program should foster an awareness of the civic, social, and moral responsibilities of business to society.	1.10	1.02	1.00	1.15
22	That the distributive education program should encourage and promote the use of ethical standards in business and industry.	1.06	1.00	1.08	1.06
23	That the distributive education program should stimulate the student's interest in his chosen distributive occupational field by providing an understanding of the opportunities it offers him to be a contributing member of society.	1.10	1.02	1.00	1.12

TABLE 20.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
24	That the distributive education program should prepare distributive personnel to analyze consumer demand and to satisfy the needs and wants of consumers intelligently, efficiently, and pleasantly.	1.18	1.14	1.08	1.26
25	That the distributive education program should provide training that results in increased efficiency in distribution and marketing.	1.11	1.11	1.00	1.15
26	That the distributive education program should contribute to the improvement of the technique in distribution and marketing.	1.23	1.09	1.08	1.12
27	That the distributive education program should be sensitive to changes in distributive and marketing practices and procedures as they are affected by societal, economic, technical, and educational developments, and adapt to such changes.	1.20	1.02	1.08	1.07
28	That the distributive education program should advance the objectives of the total educational program.	1.24	1.14	1.16	1.15

TABLE 20.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
29	That the distributive education program should strive to develop among employers, employees, and consumers a wider appreciation of the value of specifically trained personnel in distribution.	1.22	1.21	1.25	1.14

TABLE 21.--Statements of Basic Beliefs Concerning Guidance.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1964 New Staff Group
30	That a primary goal of each distributive education teacher-coordinator's guidance activities should be the growth and adjustment of individual students in relation to their occupational interests in distribution and marketing.	1.48	1.04	1.08	1.14
31	That each distributive education student should have a distributive occupational interest if he is to give his best effort in learning technical skills and knowledges and in making occupational adjustments.	1.61	1.38	1.00	1.14
32	That all applicants for the distributive education program should be carefully considered to assure the inclusion of those students who can and sincerely wish to profit from instruction.	1.27	1.35	1.00	1.19
33	That in selecting training stations for distributive education students, every effort should be made to select those most likely to provide occupational and educational opportunities in keeping with the students' capabilities, interests, and goals.	1.08	1.04	1.00	1.06

TABLE 21.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
34	That distributive education students should be provided continuous assistance in securing the knowledge, skills, and attitudes needed in making adequate choices, plans, and interpretations essential to satisfactory adjustment in the distributive occupations.	1.17	1.02	1.00	1.06
35	That each distributive education student is a unique person intellectually, socially, emotionally, and physically and should be treated individually according to his capacities and interests.	1.20	1.02	1.00	1.11
36	That cooperative effort should be made to detect and modify conditions that interfere with the distributive education student's advantageous use of his educational and occupational opportunities.	1.25	1.11	1.16	1.15
37	That a distributive education student should determine for himself, with the assistance of guidance resources available, the point at which he should cease his formal education-at high school, post-high school, or college level.	1.64	1.38	1.16	1.52

TABLE 21.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
38	That many youth need supervised occupational experience as well as correlated instruction in the skills, knowledge, and attitudes of their occupations in order to make them more intelligent and productive participants in economic life.	1.42	1.21	1.16	1.12
39	That students who are selected to enter the distributive education cooperative classes potentially should be able to represent the school in a satisfactory manner when in contact with business people of the community and the customers they serve.	1.42	1.38	1.08	1.35
40	That each student enrolled in distributive education should be made fully aware of the opportunities and careers in distribution and marketing that are available to him.	1.14	1.02	1.00	1.03
41	That distributive education students should be counselled periodically by teacher-coordinators, employers and guidance counselors concerning progress towards their occupational objectives.	1.11	1.07	1.00	1.03

TABLE 21.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
42	That the distributive education program should provide guidance and vocational counseling for adults needing training or retraining for occupations in distribution and marketing.	1.44	1.14	1.16	1.17
43	That individual student records should be kept by the distributive education teacher-coordinator in cooperation with the student as evidence of progress and competencies achieved either through projects completed or through occupational experiences.	1.15	1.02	1.08	1.17

TABLE 22.--Statements of Basic Beliefs Concerning Coordination.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
44	That coordination is the activity which unites all components of the program and without which the distributive education program at any educational level cannot be considered vocational.	1.44	2.07	1.91	1.83
45	That the amount of time which distributive cooperative students spend on the job should be realistically appraised so that they will have time and energy to master the other subjects in which they are concurrently enrolled.	1.18	1.04	1.16	1.05
46	That the amount of time which distributive cooperative students spend in school and on the job should be regularly appraised so that the combined time for school and work does not usually exceed the normal work week.	1.60	1.28	1.16	1.23
47	That training sponsors of distributive education cooperative students should be oriented to their responsibilities in providing real-life learning experiences for students on the job. This includes periodic evaluation of the students' occupational experience.	1.39	1.00	1.00	1.07

TABLE 22.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
48	That coordinators should be employed by the school system for a sufficient period of time before and after the regular school year so that they may fulfill all of the responsibilities of the job.	1.84	1.16	1.00	1.07
49	That effective coordination activities provide an opportunity for the teacher-coordinator to help keep his occupational knowledge up to date.	1.20	1.16	1.16	1.19
50	That students in the project plan should have, whenever possible, employment experiences which are coordinated and evaluated in terms of students' occupational interests.	1.39	1.26	1.00	1.25
51	That coordination is primarily an instructional technique involving individual students. It also includes other activities of a community's distributive education program, such as public relations, research, and certain aspects of guidance.	1.26	1.30	1.41	1.64

TABLE 23.--Statements of Basic Beliefs Concerning Curriculum.

Card Number	Belief Statements	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
52	That the major portion of distributive education curriculum content is derived from functions of marketing.	1.68	1.23	1.08	1.43
53	That distributive education curriculums should include, in addition to functions of marketing, the area of personal development including human relations and occupational adjustment; the application of skills in mathematics and communications to distribution; appropriate product or service technology; and basic economic understandings.	1.11	1.02	1.00	1.15
54	That DECA, the youth organization for high school and post-secondary school students, should be co-curricular in that it should provide opportunities to further develop competencies normally learned in the classroom and on the job. It also provides opportunities to acquire additional competencies, such as leadership and social skills.	1.34	1.21	1.00	1.05

TABLE 23.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
55	That vocational instruction in distribution and marketing should be based primarily on the local needs and trends in marketing, merchandising, and related management. However, it should also take into account state, national, and world trade as well as such things as family mobility and occupational relocation.	1.42	1.23	1.00	1.30
56	That the development of competencies in distributive occupations involves both individual and group instruction.	1.04	1.00	1.00	1.30

TABLE 24.--Statements of Basic Beliefs Concerning Administration.

Card Number	Belief Statements	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
60	That distributive education should be an integral part of the public school system.	1.24	1.00	1.16	1.07
61	That distributive education should serve the needs of both the indiviual student and the business community.	1.12	1.09	1.08	1.17
62	That the administrative pattern and exercise of controls for administration of distributive education should be flexible in order to serve the diversified needs of individuals and distributive businesses.	1.41	1.14	1.00	1.38
63	That the cooperation of the professional staff at local, state, and federal levels is essential to the optimun accomplishment of the goals of the distributive education program.	1.05	1.07	1.00	1.05
64	That the distributive education program should include preparatory (both cooperative and non-cooperative) and supplementary instruction offered in high school, post-high school, and adult courses.	1.22	1.16	1.00	1.29
65	That the distributive education program should include instruction for both youth and adults who have a career objective in the field of distribution and who can profit from the instruction.	1.07	1.00	1.00	1.06

TABLE 24.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
66	That the distributive education program should provide a continuum of educational opportunity that allows individuals to refine or redirect their occupational objectives.	1.06	1.00	1.00	1.06
67	That the project plan in distributive education should be provided in those school systems where the need for occupational training cannot be met effectively through the cooperative plan or where there is need for occupational training in addition to that provided by the cooperative plan.	1.37	1.30	1.25	1.41
68	That vocational instruction for adults should be available for the entire spectrum of management and non-management employees in distributive occupations at various levels of responsibility from entry through management.	1.24	1.23	1.16	1.33
69	That supervised occupational experiences should be provided for as many distributive education students as possible.	1.41	1.21	1.16	1.20
70	That the distributive education program should reflect training needs and employment opportunities as evidenced by resources such as community surveys, business census and labor force reports, and advisory services.	1.11	1.02	1.00	1.21

TABLE 24.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
71	That distributive education for disadvantaged youth requires special planning and articulation with the regular high school and post-high school distributive education offerings.	1.32	1.33	1.08	1.10
72	That a comprehensive high school should include a program of distributive education.	1.46	1.02	1.00	1.03
73	That distributive education should be available both to high school graduates and those who did not complete high school.	1.70	1.11	1.00	1.15
74	That a Distributive Education Advisory Committee should give advice in planning, developing, and evaluating the program in each community.	1.44	1.02	1.00	1.11
75	That distributive education should cooperate with other vocational services in planning instructional programs for those occupations which cut across fields, each service providing the instruction in which it specializes.	1.14	1.02	1.00	1.14
76	That criteria for evaluation of the distributive education program should be tentatively established during the planning stage and that the criteria should be revised periodically.	1.43	1.02	1.00	1.06

TABLE 24.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
77	That periodic follow-up studies of distributive education graduates and drop-outs is essential to the evaluation of the effectiveness of the distributive education program.	1.10	1.07	1.00	1.19
78	That each state and territory should charge leadership personnel with specific responsibilities for the further development and improvement of the distributive education program.	1.09	1.14	1.00	1.34
79	That participating experiences are essential if the project plan is to be a worthwhile vocational experience.	1.45	1.28	1.00	1.26
80	That the project plan requires that time be allowed in the teacher's schedule to identify direct, and evaluate projects and participating experiences contributing to each student's occupational objective.	1.30	1.14	1.00	1.14
81	That the project plan requires that time be arranged in the student's schedule to identify, develop, and evaluate competencies achieved through projects related to his occupational objective.	1.39	1.19	1.00	1.12

TABLE 24.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
82	That because of individualized instruction and the nature of the behavioral outcomes desired, the size of the distributive education class is an important factor.	1.13	1.26	1.00	1.29
83	That because of the learning outcomes desired and the demands of program management, the distributive education teacher-coordinator should have more time than the average teacher to plan, prepare, and coordinate instruction.	1.37	1.16	1.08	1.43
84	That specially designed classroom facilities are highly desirable for the in-school distributive education instructional program.	1.41	1.04	1.16	1.15
85	That audio-visual materials are highly desirable for good classroom instruction in distributive education.	1.17	1.02	1.00	1.12
86	That preparatory training should be available to out-of-school youth and adults seeking to enter, re-enter, or retrain for employment in distribution and marketing.	1.10	1.09	1.00	1.16
87	That distributive education personnel should carry on such research as is needed to provide information relating to the distributive education program.	1.27	1.02	1.08	1.25

TABLE 25.--Statements of Basic Beliefs Concerning Teacher Education.

Card Number	Belief Statements	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
88	That distributive education teacher-coordinators need specialized training both as teachers of marketing and as coordinators of cooperative and project training.	1.20	1.04	1.00	1.06
89	That distributive education student teachers should have student teaching experience in a distributive education program under the supervision of an experienced, well-qualifed distributive education teacher-coordinator.	1.21	1.16	1.08	1.07
90	That distributive education personnel at every level should be currently occupationally knowledgeable in distribution.	1.25	1.11	1.00	1.02
91	That in a changing world of distribution it is essential that both content and teaching method in distributive education be kept up-to-date.	1.01	1.00	1.16	1.03
92	That both group and indiviual instruction should be used in the in-service training of distributive education personnel.	1.07	1.02	1.00	1.17

TABLE 25.--Continued.

Card Number	Belief Statement	Composite Mean of Degree of Agreement			
		1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group
93	That the distributive education teacher-coordinator should participate in the adult education program whenever possible, thereby creating a more favorable training environment for cooperative students and increasing their own occupational knowledge.	1.72	1.38	1.25	1.46
94	That teacher-coordinators should return to a distributive occupation at intervals when occupational updating is needed and advisable.	1.57	1.23	1.33	1.41
95	That teacher education certification requirements should permit the distributive education program to capitalize on the availability of potential teaching personnel with a variety of abilities and backgrounds, provided standards are not lowered.	1.36	1.47	1.75	1.41
96	That teacher education for post-secondary instructional personnel should include advanced study in a distributive field or in a distributive function.	1.83	1.26	1.33	1.58

APPENDIX D

SPEARMAN'S RANK ORDER CORRELATION COEFFICIENTS AND KENDALL'S W FOR THE SEVEN CATEGORIES

TABLE 26.--Spearman's Rank Order Correlations: Definitions--N=18; N^3=5832; N^3N=5814.

	GI/GII		GI/GIII		GI/GIV		GII/GIV	
	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2	d_i	d_1^2
01	.5	.25	.11	.012	1	1	.5	.25
02	9.5	90.25	4.89	23.91	1.5	2.25	11	121
03	3.5	12.25	.89	.79	4	16	.5	.25
04	7.5	56.25	9.89	97.81	3	9	4.5	20.25
05	5.5	30.25	7.89	62.25	5.5	30.25	0	0
06	1	1	3.75	14.06	6.67	44.48	5.67	32.14
07	6.5	42.25	7.75	60.06	3	9	4	16
08	1	1	2.5	6.25	.5	.25	1.5	2.25
09	4	16	.25	.06	0	0	4	16
10	4	16	2.89	8.35	5.5	30.25	1.5	2.25
11	1	1	.25	.06	7	49	8	64
12	3.5	12.25	2.25	5.06	1.17	1.36	4.67	21.80
13	1	1	6.75	45.56	1	1	0	0
14	3.5	12.25	6.25	39.06	3.33	11.08	.17	.02
15	5	25	5.39	29.05	8.5	72.25	3.5	12.25
16	8.5	72.25	5.25	27.56	8.5	72.25	0	0
17	11	121	11.39	129.73	7.5	56.25	3.5	12.25
18	2.5	6.25	1.89	3.57	2	4	4.5	20.25

$\Sigma d_i^2 = 516.5$
$6\Sigma d_i^2 = 3099$
$R = 1 - (\frac{3099}{5814})$
$R = 1 - .53302$
$R = .46698$

$\Sigma d_i^2 = 553.2$
$6\Sigma d_i^2 = 3319.2$
$R = 1 - .5709$
$R = .42910$

$\Sigma d_i^2 = 409.67$
$6\Sigma d_i^2 = 2458.02$
$R = 1 - .42278$
$R = .57722$

$\Sigma d_i^2 = 340.96$
$6\Sigma d_i^2 = 2045.76$
$R = 1 - .35187$
$R = .64813$

TABLE 27.--Spearman's Rank Order Correlations: Objectives--N=11; N^3= 1331; N^3-N=1320.

	GI/GII		GI/GIII		GI/GIV		GII/GIV	
	d_i	d_i^2	d_i	d_i^2	d_i	d_1^2	d_i	d_i^2
19	8.75	76.56	5.8	33.64	2	4	6.75	45.56
20	4	16	.75	.56	8	64	4	16
21	1.25	1.56	2.25	5.06	2.83	8	4.08	16.65
22	0	0	4.2	17.64	0	0	0	0
23	1.25	1.56	2.25	5.06	0	0	1.25	1.56
24	3.5	12.25	.8	.64	5	25	1.5	2.25
25	3	9	3.75	14.06	1.33	1.76	1.67	2.78
26	2	4	3.8	14.44	5.5	30.25	3.5	12.25
27	4.75	22.56	1.8	3.24	5	25	.25	.06
28	.5	.25	0	0	3.67	13.46	3.17	10.04
29	3	9	3	9	3	9	6	36
	Σd_i^2 = 152.74		Σd_i^2 = 103.34		Σd_i^2 = 180.47		Σd_i^2 = 143.14	
	$6\Sigma d_i^2$ = 916.44		$6\Sigma d_i^2$ = 620.04		$6\Sigma d_i^2$ = 1082.82		$6\Sigma d_i^2$ = 858.84	
	R = 1 - .694		R = 1 - .469		R = 1 - .820		R = 1 - .650	
	R = .306		R = .531		R = .180		R = .350	

TABLE 28.--Spearman's Rank Order Correlations: Guidance--N=14; N^3= 2744; N^3-N=2730

	GI/GII		GI/GIII		GI/GIV		GII/GIV	
	d_i	d_1^2	d_1	d_1^2	d_i	d_i^2	d_i	d_i^2
30	6.5	42.25	3.67	13.46	4.5	20.25	3	4
31	.67	.44	11.86	140.65	5.5	30.25	4.83	23.32
32	3	9	6.86	47.05	4	16	1	1
33	4.5	20.25	.14	.01	2.5	6.25	2	4
34	3.75	14.06	3.86	14.89	1.5	2.25	2.25	5.06
35	4.75	22.56	4.86	23.61	1	1	3.75	14.06
36	1	1	4.25	18.06	2	4	1	1
37	1.67	2.78	2.75	7.56	0	0	1.67	2.78
38	.5	.25	1.75	3.06	3.5	12.25	4	16
39	2.83	8.00	1.17	1.36	3.5	12.25	.67	.44
40	1.75	3.06	1.86	3.45	1.5	2.25	.25	.06
41	5	25	.86	.73	.5	.25	5.5	30.25
42	2	4	.25	.06	.5	.25	1.5	2.25
43	2.75	7.56	4.33	18.74	6.5	42.25	9.25	85.56

$\Sigma d_i^2 = 232.21$	$\Sigma d_i^2 = 292.69$	$\Sigma d_i^2 = 149.5$	$\Sigma d_i^2 = 189.78$
$6\Sigma d_i^2 = 1393.26$	$6\Sigma d_i^2 = 1756.14$	$6\Sigma d_i^2 = 897$	$6\Sigma d_i^2 = 1138.68$
$R = 1 - .510$	$R = 1 - .643$	$R = 1 - .328$	$R = 1 - .417$
$R = .490$	$R = .357$	$R = .672$	$R = .583$

TABLE 29.--Spearman's Rank Order Correlations: Coordination--N=8; N^3=512; N^3-N=504.

	GI/GII		GI/GIII		GI/GIV		GII/GIV	
	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2
44	2	4	2	4	1	1	1	1
45	1	1	3.33	11.08	0	0	1	1
46	1	1	2.67	7.12	2	4	1	1
47	3.5	12.25	3.17	10.04	2	4	1.5	2.25
48	4.5	20.25	6.67	44.48	5.5	20.25	1	1
49	1.5	2.25	2.33	5.42	2	4	.5	.25
50	.5	.25	3.17	10.04	1.5	2.25	1	1
51	4	16	4	16	5	25	1	1
	$\Sigma d_i^2 = 57$		$\Sigma d_i^2 = 108.54$		$\Sigma d_i^2 = 70.5$		$\Sigma d_i^2 = 8.5$	
	$6\Sigma d_i^2 = 342$		$6\Sigma d_i^2 = 651.24$		$6\Sigma d_i^2 = 423$		$6\Sigma d_i^2 = 51$	
	R = 1 - .678		R = 1 - 1.292		R = 1 - .839		R = 1 - .101	
	R = .322		R = (.292)		R = .161		R = .899	

TABLE 30.--Spearman's Rank Order Correlations: Curriculum--N=8; N^3= 512; N^3-N=504.

	GI/GII		GI/GIII		GI/GIV		GII/GIV	
	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2
52	2.67	7.12	1.5	2.25	0	0	2.67	7.12
53	0	0	.8	.64	.5	.25	.5	.25
54	1	1	3.8	14.44	4	16	3	9
55	.67	.44	4.8	23.04	.67	.44	0	0
56	0	0	.2	.04	4.33	18.74	4.33	18.74
57	1	1	.5	.25	1.67	2.78	2.67	7.12
58	0	0	5	25	.5	.25	.5	.25
59	1.33	1.76	2.8	7.84	0	0	.67	.44
	Σd_i^2 = 11.32		Σd_i^2 = 73.5		Σd_i^2 = 38.46		Σd_i^2 = 42.92	
	$6\Sigma d_i^2$ = 67.92		$6\Sigma d_i^2$ = 441		$6\Sigma d_i^2$ = 230.76		$6\Sigma d_i^2$ = 257.52	
	R = 1 - .134		R = 1 - .875		R = 1 - .457		R = 1 - .510	
	R = .866		R = .125		R = .543		R = .490	

TABLE 31.--Spearman's Rank Order Correlations: Organization and Administration--N=28; N^3=21952; N^3-N=21924.

	GI/GII		GI/GIII		GI/GIV		GII/GIV	
	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2
60	12.17	148.10	10.75	115.56	8.5	72.25	3.67	13.46
61	6.5	42.25	12.25	150.06	8	64	1.5	2.25
62	4.67	21.80	20.95	438.90	4	16	8.67	75.16
63	11.5	132.25	.05	.00	11.33	128.36	.17	.02
64	8.5	72.25	10.95	119.90	10.5	110.25	2	4
65	1.67	2.78	1.95	3.80	.67	.44	1	1
66	.67	.44	.95	.90	.33	.10	1	1
67	7.5	56.25	8.5	72.25	7.5	56.25	0	0
68	10.5	110.25	10.75	115.56	10.5	110.25	0.	0
69	1	1	2.25	5.06	4	16	5	25
70	2.86	8.17	5.95	35.40	12	148	14.86	220.81
71	11	121	3.25	10.56	11	121	22	484
72	22.86	522.57	25.95	673.40	26	676	3.14	9.85
73	12	148	26.95	726.30	15.67	245.54	3.67	13.46
74	20.86	435.13	23.95	573.60	18	324	2.86	8.17
75	5.86	34.33	8.95	80.10	.5	.25	6.36	40.44
76	19.86	394.41	22.95	526.70	21.67	469.58	1.81	3.27
77	7	49	4.45	19.80	11.5	132.25	4.5	20.25
78	13.33	177.68	2.95	8.70	21	441	7.67	58.82
79	0	0	24.95	622.50	5	25	5	25
80	1.33	1.76	14.95	223.50	5.5	30.25	6.83	46.64
81	4	16	16.95	287.30	9.5	90.25	13.5	182.25
82	16	256	7.95	63.20	13.5	182.25	2.5	6.25
83	1	1	.75	.56	8.5	72.25	7.5	56.25
84	11	121	2.25	5.06	9.67	93.50	1.33	1.76
85	6.86	47.05	9.95	99.00	2.5	6.25	4.36	19.00
86	9	81	4.45	19.80	9.5	90.25	.5	.25
87	10.86	117.93	5.25	27.56	5	25	15.86	251.53

Σd_i^2 = 3119.4	Σd_i^2 = 5025.03	Σd_i^2 = 3746.52	Σd_i^2 = 1569.89
$6\Sigma d_i^2$ = 18716.4	$6\Sigma d_i^2$ = 30150.18	$6\Sigma d_i^2$ = 22479.12	$6\Sigma d_i^2$ = 9419.34
R = 1 - .853	R = 1-1.375	R = 1 - 1.025	R = 1 - .429
R = .147	R = (.375)	R = (.025)	R = .571

TABLE 32.--Spearman's Rank Order Correlations: Teacher Education--N=9; N^3=729; N^3-N=720.

	GI/GII		GI/GIII		GI/GIV		GII/GIV	
	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2	d_i	d_i^2
88	0	0	1.67	2.78	0	0	0	0
89	1	1	0	0	0	0	1	1
90	1	1	3.67	13.46	4	16	3	9
91	0	0	4	16	1	1	1	1
92	0	0	.67	.44	3	9	3	9
93	0	0	2	4	0	0	0	0
94	1	1	.5	.25	.5	.25	.5	.25
95	3	9	3	9	.5	.25	2.5	6.25
96	2	4	1.5	2.25	0	0	2	4
	$\Sigma d_i^2 = 16$		$\Sigma d_i^2 = 48.18$		$\Sigma d_i^2 = 26.5$		$\Sigma d_i^2 = 21.5$	
	$6\Sigma d_i^2 = 96$		$6\Sigma d_i^2 = 289.08$		$6\Sigma d_i^2 = 159$		$6\Sigma d_i^2 = 129$	
	R = 1 - .133		R = 1 - .401		R = 1 - .220		R = 1 - .179	
	R = .867		R = .599		R = .780		R = .821	

TABLE 33.--Kendall's W Definitions $W = \frac{S}{1/12\ K^2(N^3-N)}$ -- K=4; N=18; N^3=5832.

	1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
1	1	1.5	1.11	2	4.61
2	5	14.5	1.11	3.5	24.11
3	2	5.5	1.11	6	14.61
4	11	3.5	1.11	8	23.61
5	9	3.5	1.11	3.5	17.11
6	18	17	14.25	11.33	60.58
7	6.5	13	14.25	9.5	43.25
8	15.5	14.5	18	16	64
9	14	10	14.25	14	52.25
10	4	8	1.11	9.5	22.61
11	10	9	10.25	17	46.25
12	12.5	16	10.25	11.33	50.08
13	17	18	10.25	18	63.25
14	8	11.5	14.25	11.33	45.08
15	6.5	11.5	1.11	15	79.19
16	15.5	7	10.25	7	39.75
17	12.5	1.5	1.11	5	20.11
18	3	5.5	1.11	1	10.61
					681.06

Mean = 37.83

$$S = (4.61-37.83)^2 + (24.11-37.83)^2 + (14.61-37.83)^2 + (23.61-37.83)^2$$
$$+(17.11-37.83)^2 + (60.58-37.83)^2 + (43.25-37.83)^2 + (64-37.83)^2$$
$$+(52.25-37.83)^2 + (22.61-37.83)^2 + (46.25-37.83)^2 + (50.08-37.83)^2$$
$$+(63.25-37.83)^2 + (45.08-37.83)^2 + (79.19-37.83)^2 + (39.75-37.83)^2$$
$$+(20.11-37.83)^2 + (10.61-37.83)^2$$

$$W = \frac{7822.73}{(1/12)(16)(5814)} = \frac{7822.73}{7752} = 1.00.$$

TABLE 34.--Kendall's W Objectives $W = \frac{S}{1/12\ K^2(N^3-N)}$ --K=4; N=11; N^3=1331.

	1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
19	11	2.25	5.20	9	27.45
20	2	6	1.25	10	19.25
21	3.5	2.25	1.25	6.33	13.33
22	1	1	5.20	1	8.2
23	3.5	2.25	1.25	3.5	18.7
24	6	9.5	5.20	11	31.7
25	5	8	1.25	6.33	20.58
26	9	7	5.20	3.5	24.7
27	7	2.25	5.20	2	16.45
28	10	9.5	10	6.33	35.83
29	8	11	11	5	35
					251.19

Mean = 22.83

$S = (27.45-22.83)^2 + (19.25-22.83)^2 + (13.33-22.83)^2$
$+(8.2-22.83)^2 + (18.7-22.83)^2 + (31.7-22.83)^2$
$+(20.58-22.83)^2 + (24.7-22.83)^2 + (16.45-22.83)^2$
$+(35.83-22.83)^2 + (35-22.83)^2$

$W = \frac{800.5}{1/12(16)(1320)} = \frac{800.5}{1760} = .45.$

TABLE 35.--Kendall's W $W = \frac{S}{1/12\ K^2(N^3-N)}$ -- K=4; N=14; N^3=2744.

Guidance

	1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
30	12	5.5	8.33	7.5	33.33
31	13	12.33	1.14	7.5	33.97
32	8	11	1.14	12	32.14
33	1	5.5	1.14	3.5	11.14
34	5	1.25	1.14	3.5	10.89
35	6	1.25	1.14	5	13.39
36	7	8	11.25	9	35.25
37	14	12.33	11.25	14	51.58
38	9.5	10	11.25	6	36.75
39	9.5	12.33	8.33	13	43.16
40	3	1.25	1.14	1.5	6.89
41	2	7	1.14	1.5	11.64
42	11	9	11.25	10.5	41.75
43	4	1.25	8.33	10.5	24.08
					385.96

Mean = 27.56

$$S = (33.33-27.56)^2 + (33.97-27.56)^2 + (32.14-27.56)^2 + (11.14-27.56)^2 + (10.89-27.56)^2 + (13.39-27.56)^2 + (35.25-27.56)^2 + (51.58-27.56)^2 + (36.75-27.56)^2 + (43.16-27.56)^2 + (6.89-27.56)^2 + (11.64-27.56)^2 + (41.75-27.56)^2 + (24.08-27.56)^2$$

$$W = \frac{2701.65}{1/12(16)(2730)} = \frac{2701.65}{3640} = .74$$

TABLE 36.--Kendall's W Coordination $W = \frac{S}{1/12\ K^2(N^3-N)}$ -- K=4; N=8; N^3=512.

	1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
44	6	8	8	7	29
45	1	2	4.33	1	8.33
46	7	6	4.33	5	22.33
47	4.5	1	1.33	2.5	9.33
48	8	3.5	1.33	2.5	15.33
49	2	3.5	4.33	4	13.83
50	4.5	5	1.33	6	16.83
51	3	7	7	8	25.00
					139.98

Mean = 17.49

$$S = (29-17.49)^2 + (8.33-17.49)^2 + (22.33-17.49)^2 + 9.33-17.49)^2 + (15.33-17.49)^2 + (13.83-17.49)^2 + (16.83-17.49)^2 + (25-17.49)^2$$

$$W = \frac{381.26}{1/12(16)(504)} = \frac{381.26}{672} = .56.$$

TABLE 37.--Kendall's W Curriculum $W = \frac{S}{1/12\ K^2(N^3-N)}$ -- K=4; N=8; N^3=512.

	1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
52	8	5.33	6.5	8	27.83
53	2	2	1.20	2.5	7.7
54	5	4	1.20	1	11.2
55	6	5.33	1.20	5.33	17.86
56	1	1	1.20	5.33	8.53
57	7	8	6.5	5.33	26.83
58	3	3	8	2.5	16.5
59	4	5.33	1.20	4	10.53
					126.98

Mean = 15.87

$$S = (27.83-15.87)^2 + (7.7-15.87)^2 + (17.86-15.87)^2 + (8.53-15.87)^2 + (26.83-15.87)^2 + (16.5-15.87)^2 + (10.53-15.87)^2$$

$$W = \frac{438.43}{1/12(16)(504)} = \frac{438.43}{672} = .65.$$

TABLE 38.-- Kenall's W Organization and Administration $W = \frac{S}{1/12\ K^2(N^3-N)}$ -- K=4; N=28; N^3=21952

	1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
60	13.5	1.33	24.25	5	44.08
61	8	14.5	20.25	16	58.75
62	22	17.33	1.05	26	66.38
63	1	12.5	1.05	12.33	26.88
64	12	20.5	1.05	22.5	56.05
65	3	1.33	1.05	2.33	7.71
66	2	1.33	1.05	2.33	6.71
67	19.5	27	28	27	101.5
68	13.5	24	24.25	24	85.75
69	22	23	24.25	18	87.25
70	7	4.14	1.05	19	31.19
71	17	28	20.25	6	71.25
72	27	4.14	1.05	1	33.19
73	28	16	1.05	12.33	57.38
74	25	4.14	1.05	7	37.19
75	10	4.14	1.05	10.5	25.69
76	24	4.14	1.05	2.33	31.52
77	5.5	12.5	1.05	17	36.05
78	4	17.33	1.05	25	47.38
79	26	26	1.05	21	74.05
80	16	17.33	1.05	10.05	44.88
81	18	22	1.05	8.5	49.55
82	9	25	1.05	22.5	57.55
83	19.5	20.5	20.25	28	88.25
84	22	11	24.25	12.33	69.58
85	11	4.14	1.05	8.5	24.69
86	5.5	14.5	1.05	15	36.05
87	15	4.14	20.25	20	59.39
					1415.89

Mean = 50.56

S = 15794.38

$$W = \frac{1579.38}{1/12(16)(21924)} = \frac{15,794.38}{29,232} = .54.$$

TABLE 39.-- Kendall's W Teacher Education $W = \frac{S}{1/12\ K^2(N^3-N)}$ -- K=4; N=9; N^3=729.

	1965 Leadership Group	1974 Leadership Group	1974 Job Shift Group	1974 New Staff Group	R_j
88	3	3	1.33	3	10.33
89	4	5	4	4	17
90	5	4	1.33	1	11.33
91	1	1	5	2	9
92	2	2	1.33	5	10.33
93	8	8	6	8	30
94	7	6	7.5	6.5	27
95	6	9	9	6.5	30.5
96	9	7	7.5	9	32.5
					177.99

Mean = 19.77

$$S = (10.33-19.77)^2 + (17-19.77)^2 + (11.33-19.77)^2 + (30-19.77)^2 + (27-19.77)^2 + (30.5-19.77)^2 + (9-19.77)^2 + (32.5-19.77)^2$$

$$W = \frac{807.21}{1/12(16)(720)} = \frac{807.21}{960} = .840.$$

SELECTED BIBLIOBRAPHY

SELECTED BIBLIOGRAPHY

Books

Bird, C. Social Psychology. New York: Appleton-Century-Crofts, Inc., 1940.

Blackstone, Bruce I. "Federal Programs," Office Practice and Procedures. Forty-thrid Yearbook of the Eastern Business.

Boggs, Lohnie J. "New Media for Teaching General Business," New Media in Teaching the Business Subjects. Third Yearbook, Washington, D. C.: National Business Education Association, 1965.

Borow, Henry. Man in a World of Work. Boston: Houghton Mifflin Company, 1964.

Brown, David E. The Mobile Professor. Washington, D. C.: American Council on Education, 1967.

Campbell, W. G. Form and Style in Thesis Writing. Boston: Houghton Mifflin Company, 1969.

Cenci, Louis, and Gilbert G. Weaver. Teaching Occupational Skills. New York: Pitman Publishing Company, 1968.

Dewey, John. Democracy and Education. New York: The Free Press, 1916.

Edwards, Allen L. Techniques of Attitude Scale Construction. New York: Holt, Rinehart and Winston, Inc., 1957.

Elzey, Freeman F. A First Reader in Statistics. Belmont: Brooks/Cole Publishing Company, 1968.

Evans, Rupert N. Foundations of Vocational Education. Columbus: Charles E. Merrill Publishing Co., 1971.

Fishbein, Martin. Readings in Attitude Theory and Measurement. New York: John Wiley and Sons, Inc., 1967.

Fox, David J. The Research Process in Education. New York: Holt, Rinehart and Winston, Inc., 1969.

Good, Carter V., ed. Dictionary of Education. New York: McGraw-Hill Book Company, Inc., 1959.

Guilford, J. P. Fundamental Statistics in Psychology and Education. 4th ed. New York: McGraw-Hill Book Company, Inc., 1965.

Ivins, Wilson H., and Runge, William B. Work Experience in High School. New York: The Ronald Press Company, 1951.

Kirk, Roger E. Experimental Design: Procedures for the Behavioral Sciences. Belmont: Brooks/Cole Publishing Company, 1968.

Likert, Rensis. "The Measurement of Attitudes." Archives of Psychology, No. 140 (1932).

Mason, Ralph E., and Haines, Peter G. Cooperative Occupational Education and Work Experience in the Curriculum. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1965.

Prosser, Charles A., and Quigley, Thomas H. Vocational Education in a Democracy. Revised edition. Chicago: American Technical Society, 1949.

Roberts, Roy W. Vocational and Practical Arts Education. New York: Harper and Row Publishers, 1971.

Rowe, Kenneth L. "Improving the Content of the Secondary School Distributive Education Program." The Emerging Content and Structure of Business Education. Eighth Yearbook. Washington, D. C.: National Business Education Association, 1970.

Samson, Harland E. "The Teaching of Distributive Education." Contributions of Research to Business Education. Ninth Yearbook. Washington, D. C.: National Business Education Association, 1971.

Siegel, Sidney, Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Company, Inc., 1956.

Stephenson, William. The Study of Behavior, Q-Technique and Its Methodology. Chicago: The University of Chicago Press, 1953.

Stephenson, William. "The Analysis of Variance of Q-Sort Data." The Journal of Experimental Education XXXIV, No. 1 (Fall, 1965).

Tate, Donald J. "Manpoer Needs Change Educational Emphasis." Business Education Meets the Challenge of Change. Fourth Yearbook. Washington, D. C.: National Business Education Association, 1966.

Periodicals

American Vocational Association. Vocational-Technical Terminology. Washington, D. C.: American Vocational Association Publication Committee, 1971.

Andrews, L. O. Challenges and Needed Developments in Teacher Education. Multi-State Teacher-Education Project, U. S. Office of Education Project. Washington, D. C., 1968.

Ashmun, Richard D. "New Approaches in the Professional Education of Distributive Education Teachers." Vocational-Technical Teacher Education: National Seminar Proceedings. Columbus: The Ohio State University, 1967.

Bair, Medill. "Developing Accountability in Urban Schools: A Call for State Leadership." Educational Technology XI, No. 1 (January, 1971).

Beaumont, John A. "The Federal Role in Distributive Education." American Vocational Journal (December, 1963).

Block, John M. "A Comparison of the Forced and Unforced Q-Sorting Procedure." Educational and Psychological Measurement XVI, No. 4 (1956).

Blount, Nathan S. "The Effect of Selected Junior Novels and Selected Adult Novels on Student Attitudes Toward the 'Ideal' Novel." The Journal of Educational Research LIX, No. 4 (December, 1965).

Bond, Marjorie H. "Teenage Attitudes and Attitude Changes as Measured by the Q-Technique." The Journal of Educational Sociology XXXVI (September, 1962).

Broen, William E., Jr. "A Factor-Analytic Study of Religious Attitudes," The Journal of Abnormal and Social Psychology LIV, No. 2 (March, 1957).

Burkett, Lowell A. "Latest Word from Washington." American Vocational Journal XLVI, 8 (November, 1971).

Byrnside, O. J., Jr. "From the Editor." Business Education Forum XXV, 2 (November, 1970.

Calhoun, Calfrey C. "New Approaches in Providing Major Field Content for Vocational Business and Office Teachers." Vocational-Technical Teacher Education: National Seminar Proceedings. Columbus: The Ohio State University, 1967.

Carter, Fairchild. The Role of Distributive Teacher Education in Adult Education. Council for Distributive Teacher Education Professional Bulletin, Series No. 3, 1963.

Courtney, E. Wayne, and Halfin, Harold H. Competencies of Vocational Teachers, A Factor Analysis of the Training Needs of Teachers of Occupational Education. Corvallis, Oregon: Oregon State University, 1969.

Cummins, Robert E. "Some Application of 'Q' Methodology to Teaching and Educational Research." The Journal of Educational Research LVII, No. 2 (October, 1963).

Davies, M. "The General Factor in Correlations Between Persons." Brit. Journal of Psychology XXVIX (1939).

Dorr, Eugene L. A Case Study of Weaknesses of Coordination Practices. Distributive Teacher Education Professional Bulletin, Series No. 2, State Department of Vocational Education, Distributive Education Service, Phoenix, Arizona, 1962.

Emick, Glenn O. Cooperative Training in Merchandising and Retail Selling in the Public Secondary Schools. Ed. D. Dissertation, Indiana University, 1935. Published as Vocational Education Bulletin No. 186. Commercial Series No. 10. U. S. Department of Interior, Office of Education. Washington, D. C.: Government Printing Office, 1936.

Ewan, George E. "A New Vocational Education." American Vocational Journal XLV, 7 (October, 1970).

Federal Board for Vocational Education. Statement of Policies for Vocational Education. Bulletin No. 1, 1917.

Ferguson, Edward T. "A Challenge for the Distributive Education Program of the 70's." The Balance Sheet LI, 5 (January, 1970).

Guthrie, Mearl. "Business Teacher Education Progams Need Complete Overhauling." The Forum XXIII, 8 (May, 1969).

Haas, Kenneth B. Federal Security Agency, United States Office of Education, Distributive Education Organization and Administration, Vocational Division, Bulletin No. 205. Washington: Government Printing Office, 1939.

Haas, Kenneth B. Federal Security Agency, United States Office of Education, Distributive Education Organization and Administration, Vocational Division, Bulletin No. 211. Washington: Government Printing Office, 1940.

Hardwick, Arthur L. "Career Education--A Model for Implementation." Business Education Forum XXV, 8 (May, 1971).

Harris, E. Edward. "What's Ahead for D. E." American Vocational Journal XLVI, 1 (January, 1971).

Huffman, Harry. Guidelines for Cooperative Education. Columbus: The Center for Vocational and Technical Education, The Ohio State University, 1967.

Hunt, DeWitt. Work Experience Education Programs in American Secondary School. Washington, D. C.: Government Printing Office, 1957.

Kemp, Barbara H. "Vocational Education: The Emphais in on 'All.'" Business Education World LI, 1 (September-October, 1970).

Koehn, Emil A. "The State Leadership Role in Vocational Education." American Vocational Journal XLV 7 (October, 1970).

Marks, Mary V. "Perspectives of Distributive Teacher Education: A Survey with Instruments." American Vocational Journal XLVI, 8 (November, 1971).

Medinnus, Gene R. "Parental Q-Sort Descriptions of Five-Year Olds as Predictors of First Grade Adjustment." The Journal of Educational Research LVII, No. 2 (October, 1963).

Miller, Wayne W. "Time, Dollars and Programs that Dare to be Different." American Vocational Journal XLVI, 4 (April, 1971).

Minear, Leon P. "Business Education Faces the Future." American Vocational Journal XLV, 4 (April, 1970).

Morsh, Joseph E. "The Q-Sort Technique as a Group Measure." Educational and Psychological Measurement XV (Winter, 1955).

Nahinsky, Irwin D. "Q-Sort Approaches in Studying Sex, Socio-economic Status, and Psychopathological Variables." Psychological Reports XII (1963).

Samson, Harland E. "Planning: Advance Thorough and Complete." American Vocational Journal XLVI, 4 (April, 1971).

Schill, William J. "The Use of the Q-Technique in Determining Curriculum Content." California Journal of Educational Research XII (September, 1961).

Schill, William J. "Unforced and Group Response to a Q-Sort." The Journal of Experimental Education XXXIV (Summer, 1966).

Schulthesis, Robert A. "Research Priority for Business Education." The Delta Pi Epsilon Journal XIII, 2 (February, 1971).

Sheldon, M. Stephen, and Sorenson, A. Garth. "On the Use of Q-Technique in Educational Evaluation." Journal of Experimental Education XXIX, No. 2 (December, 1960).

Tate, Donald J. "Realistic Vocational Business Education." Journal of Business Education XLVII, 2 (November, 1971).

Tennyson, W. Wesley. "Career Development: Who's Responsible." American Vocational Journal XLVI, 3 (March, 1971).

United States Congress. Vocational Education Amendments of 1968. Public Law 90-576, 90th Congress, 1st Session, October 16, 1968. Washington: Government Printing Office, 1968.

United States Congress. Message from the President of the United States Relative to American Education. House of Representatives Document 92, 87th Congress, 1st Session, February 20, 1961. Washington: Government Printing Office, 1961.

United States Congress. Vocational Education Act of 1963. Public Law 88-210, 88th Congress, 1st Session, December 18, 1963. Washington: Government Printing Office, 1963.

Unpublished Materials

Barnes, Bernice. "Attitudes of Minority and Non Minority Students Toward Non Skill Aspects of Office Work." Ph.D. dissertation, Arizona State University, 1971.

Bicanich, William F. "Distributive Education Students' Reactions to the Cooperative part-time Distributive Education Programs in Minnesota." M.A., University of Minnesota, 1964.

Brown, Eleanor B. "Relationship of Practice in Business Education to Established Objectives." Ed.D. dissertation, The Pennsylvania State University, University Park, 1958.

Crawford, Lucy C. " A Philosophy of Distributive Education," A Report of the First Step in the Research Project," A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education." Manuscript, V.P.I., Blacksburg, Virginia, 1967.

Crawford, Lucy C. "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education." Final Report of Research Project supported by United States Office of Education Grant OE-6-85-044, Vol. I, 1967.

Driska, Robert S. "Office Education on the Secondary School Level: A Critical Analysis." Ph.D. dissertation, Arizona State University, 1967.

Ertel, Kenneth A. Identification of Major Tasks Performed by Merchandising Employees Working in Three Standard Industrial Classifications of Retail Establishments. U. S. Office of Education Project No. ERD-257-65. Moscow, Idaho: University of Idaho, 1966.

Ford, Wynnie S., and Patterson, Herman F. "The Development and Use of a Q-Sort for Determining the Most Characteristic Problems of Student Teachers in Business Education." Ed.D. dissertation, Colorado State College, Greeley, 1967.

Frame, Terry M. "The Relationship Between Tasks Performed by Selected Office Employees and Office Education Students." Ph.D. dissertation, Northern Illinois University, 1971.

Frank, Harry E. "Factors Influencing Perceptions of the Ideal Adult Vocational Education Program for Public Secondary Schools." Ph.D. dissertation, The Florida State University, 1968.

Freeze, Chester R. "Study of Openness as a Factor Change of Student Teachers." Ph.D. dissertation, The University of Alabama, College, 1963.

Grandoni, John E. "A Survey of Selected Distributive Education Progams in New York State: A Study of Specific Cooperative Part-time Retailing Programs Based on Personal Observations at Schools and Training Stations." Ph.D. dissertation, New York University, 1957.

Gratz, Jerre E. "Identification and Analysis of the Major Issues in Selected Business Education Subjects of the Public Secondary Schools." Ed.D. dissertation, University of Houston, 1961.

Hahn, Frederick E. "Influence of Attitude Set on Reported Satisfaction with Student Teaching." Ph.D. dissertation, Rutgers-The State University, New Brunswick, 1963.

Hallam, James A. "New Dimensions for Research in Business Education as Revealed by a Study of the Titles of Research Completed, 1954-1964, and by opinion Survey of a Selected Group of High School and College Business Educators Regarding Recommended Research. Ph.D. dissertation, The University of Iowa, 1965.

Harris, Earl E. "Business Education and Distributive Education Teacher-Coordinators Critical Requirements and Reasoned-Judgement Comparisons." Ed.D. dissertation, Northern Illinois University, 1965.

Harris, E. Edward. "Office Education and Distributive Education Teacher-Coordinators: Critical Requirements and Reasoned-Judgement Comparisons. Ph.D. dissertation, Northern Illinois University, DeKalb, 1965.

Hanna, J Marshall. "Conflicting Viewpoints in the Field of Secondary-School Business Education." Ed.D. dissertation, New York University, New York, 1950.

Hayden, Carlos Keith. "Major Issues in Business Education." Ph.D. dissertation, Ohio State University, Columbus, 1950.

Hines, Marjorie L. "A Study of the Comparison of the Attitudes of Selected Groups of Students Before and After the Student Teaching period Through the Use of the Q-Sort." Ph.D. dissertation, Colorado State College, Greeley, 1963.

Huff, George P. "Evaluation of Affective Behaviors in Student Teachers by Application of Q-Methodology." Ph.D. dissertation, The University of Southern California, Los Angeles, 1964.

Johansen, Harold D. "An Evaluation of the Federally Reinbursed Distributive Education Programs in Iowa High Schools with Specific Reference to the Evaluative Guides as Developed by the National Study of Secondary School Evaluation." Ed.D. dissertation, University of Iowa, 1963.

Jones, Galen V. "Practices and Characteristics of the Federally Supported Cooperative Distributive Education Programs in Pennsylvania, 1955-56." Ed.D. dissertation, Temple University, 1957.

Keller, William D. "A Comparison of Teachers' and Educators' Opinions Regarding the Most Beneficial Master's Degree Programs for Business Teachers." Ph.D. dissertation, Colorado State College, 1965.

Kinzer, Lowry G. "The Philosophy of Distributive Education Teacher-Coordinators as Compared to Business and Office Education Teacher-Coordinators in New Mexico." Ph.D. dissertation, Arizona State University, 1969.

Kittner, Helena. "Issues in Vocational Education: A Book of Readings for Educators." Ph.D. dissertation, Columbia University, 1966.

Long, R. Charles. "A Study to Determine the Effects of the Vocational Act of 1963 Upon Business Teacher Education Programs in Selected Colleges and Universities." Ph.D. dissertation, University of North Dakota, 1967.

Magisos, Joel H. "An Analysis of Factors Associated with Perceptions of Role by State Supervisors of Vocational Education." Ph.D. dissertation, The Ohio State University, 1968.

Marks, Mary V. "The Project Method in Action." Paper presented at the meeting of the National Association of Distributive Education Teachers, American Vocational Association, Miami Beach, Florida, December 9, 1965.

Meyer, Warren G. Pilot Training Project Based on Directed Occupational Experience for Teachers of Distribution and Marketing. U. S. Office of Education Project No. 6-1594. Minneapolis, Minnesota: University of Minnesota, 1967.

Meyer, Warren G. "Teacher Educator for Distributive Education, University of Minnesota." Paper presented at the 1967 National Seminar in Distributive Education sponsored by Michigan State University and Arizona State University. Found in "Readings in Distributive Education."

Mills, Chester O. "Academic Status of High School Distributive Education Cooperative Students." Ph.D. dissertation, The Ohio State University, 1964.

Nye, Bernard C. "Major Issues in Distributive Teacher Education." Ph.D. dissertation, The Ohio State University, 1967.

Nuccio, Carmella Elizabeth. "Opinions of Business Teachers on Major Issues in Their Field and Significance of Selected Background Factors in Shaping Beliefs." Ph.D. dissertation, The Ohio State University, 1965.

Patton, Lucille W. "An Analysis of Curriculum and Employment Needs in Post-Secondary Distributive Education in Oklahoma." Ed.D. dissertation, Oklahoma State University, 1971.

Peck, Charles and Denman, Frederick L. Relative Importance and Preparation for Distributive Education Subject Areas. Research Study. University of Washington, 1968.

Plymire, Boyd G. "The Q-Sort as a Measurement of the Attitudes of Business Educators Concerning the Professional Contributions of Business Education Periodical Literature." Ed.D. dissertation, The University of North Dakota, Grand Forks, 1967.

Reece, Barry L. "Adult Distributive Education Issues." Ed.D. dissertation, University of Nebraska, 1971.

Rice, Dick C. "Role Perception in the Supervison of State Vocational Education in Ohio in Relation to Change." Ph.D. dissertation, The Ohio State University, 1966.

Samson, Harland E. "The Critical Requirements for Distributive Education Teacher Coordinators." Ph.D. dissertation, University of Minnesota, 1964.

Smith, Charles B. "The Development of a Q-Sort to Measure Self-Concept of Writing Competence." Ed.D. dissertation, Colorado State College, Greeley, 1962.

Soutter, Florence E. "Perceptions on Cooperative Distributive and Office Education Programs." Ph.D. dissertation, Arizona State University, 1971.

Warmke, Roman F. "A Study of Current Distributive Education Issues, Based upon Opinions of Education Leaders." Ph.D. dissertation, University of Minnesota, Minneapolis, 1960.

Traicoff, George, Jr. "The Knowledge and Opinions of Business Educators Toward Vocational Education with Special Emphasis Toward Distributive Education." Ed. D. dissertation, Indiana State University, 1967.

Talkington, Joe E. "An Analysis of Industrial Arts Objectives as Determined by Q-Technique." Ph.D. dissertation, Colorado State College, Greeley, 1962.