

THE PROJECT METHOD IN DISTRIBUTIVE EDUCATION:
STUDENT ACHIEVEMENT IN SELECTED
CONTENT AREAS

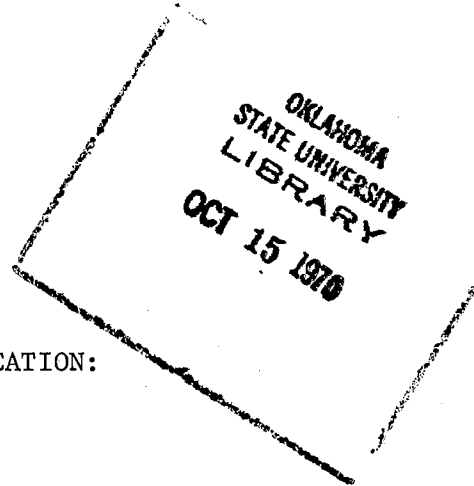
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DOCTOR OF EDUCATION
May, 1970

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ACKNOWLEDGMENTS

The writer would like to express his gratitude to the dissertation committee, Drs. Kenneth St. Clair, Chairman; William W. Stevenson; and Donald Allen for their sincere interest and guidance.

Special gratitude is expressed to Dr. St. Clair for his tireless assistance in completion of the research study. Special thanks are expressed to Dr. Stevenson and Dr. William D. Frazier for their encouragement, support, and financial assistance through the Vocational Research Coordinating Unit at Oklahoma State University.

Special gratitude is expressed to Paula Horne for her diligent efforts in typing rough drafts and the final copy of the dissertation. Appreciation is expressed, also, to Carol Bolles for her typing assistance.

Last, but far from least, is the recognition for the prolonged and continued understanding, encouragement, and assistance rendered by my wife, Suzy, and our son Jim Benson. This support helped to make the study a reality.

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CHAPTER I

THE NATURE OF THE PROBLEM

Introduction

Education in the United States today is witnessing more and more emphasis being placed upon vocational education and those people who are responsible for its development. The federal government, as well as the individual states, has promoted and provided for the education of those individuals who need training in order to support themselves and their families.

The Honorable Dewey F. Bartlett, Governor of Oklahoma, in a speech to a National Conference on Research, said of vocational education:¹

Your field to me is one of the most exciting fields and I would say particularly exciting in the educational area. I feel that the role of vocational-technical education is just beginning to be realized as important as it actually is in the total scene, the total spectrum of education.

In a 1961 address to Congress, the late President John F. Kennedy, who had great concern about the quality and the direction of education in the United States, recommended the establishing of an advisory committee to study and evaluate the commitments of federal government to vocational education.

Late in 1961 a panel of consultants for vocational education was appointed by the Secretary of Health, Education, and Welfare. One member of the panel was Mr. J. B. Perky, now retired State Director of

Vocational-Technical Education in Oklahoma. The panel was "charged with the responsibility of reviewing and evaluating the National Vocational Education Acts, and making recommendations for improving and redirecting the program."²

During the ensuing year the Panel of Consultants met and conferred with vocational education specialists and commissioned special studies to be made in vocational education in addition to those being conducted by the Panel's staff. Several conferences were set up to give the Panel a better view and understanding of all aspects of vocational education.

In a report prepared for the Panel of Consultants, a presentation was given on behalf of distributive education by Mr. Harry W. Ketchum. His presentation was in relation to the future opportunities for distributive education. Mr. Ketchum stated that:³

The importance of Distributive Education as a field of vocational training can only be measured in relation to the past contributions, current needs, and future potentials in the broad field of marketing and distribution toward the improvement of which Distributive Education programs are directed.

Mr. Ketchum went on to say that future opportunities for distributive education and the significance of its responsibility in meeting national goals can best be expressed within the framework of six interrelated propositions. His propositions were:⁴

First--Although America stands today as the most productive nation in the world, we cannot maintain our position of leadership, meet the nation's goals nor achieve full employment without substantial increases in our rate of economic growth.

Second--Marketing and distribution have always been and will continue to be a major factor in this growth process.

Third--With every innovation in science and technology, industrial development and automation, the tasks,

responsibilities, and opportunities for marketing and distribution will increase--as they have in the past.

Fourth--The most significant component within the distribution system must, by its very nature, continue to be the individual rather than the machine. Consequently increased efficiency and productivity in marketing must be sought through a better educated labor force and more effective utilization of human resources.

Fifth--Significant progress in reducing costs and increasing efficiency throughout marketing and distribution must therefore depend to a considerable extent upon the quality of education and training in this field, both formal and informal, and in this Distributive Education must play a major role.

Sixth--The future opportunities to increase the contributions of Distributive Education to the attainment of National goals will be limited only by our imagination, our resourcefulness and our sincere efforts through every avenue of approach.

As previously mentioned, the Panel of Consultants had a staff which conducted research regarding vocational education in addition to the reports presented by various individuals. For example, a study of availability of vocational education was conducted in six sample states that were considered representative of the Nation as a whole.^{5, 6} In the six states⁷ selected, it was found that, of a total 3,733 schools, only 5.1 percent of the schools offered distributive education. Over 256,000 students were enrolled in vocational education in these schools and distributive education enrollees comprised only 4,650 of the total group. These figures indicated that only .3 percent of the nation's high school youth were enrolled in distributive education.

In reality, distributive education students represented eight percent of the total federally reimbursed vocational education programs in 1960-61.⁸ It should also be noted that the five states with the

largest enrollment and greatest number of distributive education programs were not included in the research sample.

The Panel of Consultants learned from their research that distributive education was not offered in the rural areas of the United States. Dr. Rufus W. Beamer, in a speech to the Distributive Education Section of the American Vocational Association Convention in 1963, said:⁹

All of us know that this situation (not offering D. E. in rural areas) has existed because of a requirement in the Federal Acts that enrollment in Distributive Education be limited to employed persons. If this limitation is lifted, then distributive education could be made available to youth who live in rural areas and attend rural high schools. The need for distributive education being made available to rural youth is obvious. Young people from rural areas migrate to urban areas, and a great many social and economic problems would be eliminated if they migrated possessing skills that would enable them to get and hold a job. The migration of our people and our business from so called rural areas to urban areas might be curtailed drastically if strong programs of distributive education were placed in rural schools.

Dr. Beamer reported from a recent (at the time of the speech) issue of Women's Wear Daily that a study of 77 selected rural communities in four different areas of Kansas indicated that, in a period from 1957 to 1962, 57 communities with less than 1,000 people lost retail stores whether population had increased or decreased.

On the basis of research and information such as that presented in the preceding pages, the Panel of Consultants made their recommendations to Congress and the President of the United States. The Panel's general recommendations were that "in a changing world of work, vocational education must:"¹⁰

1. Offer training opportunities to the 21 million non-college graduates who will enter the market in the 1960's.

2. Provide training or retraining for the millions of workers whose skills and technical knowledge must be updated, as well as those whose jobs will disappear due to increasing efficiency, automation, or economic change.
3. Meet the critical need for highly skilled craftsmen and technicians through education during and after the high school years.
4. Expand vocational and technical training programs consistent with employment possibilities and national economic needs.
5. Make educational opportunities equally available to all, regardless of race, sex, scholastic aptitude, or place of residence.

A recommendation that was to be widely accepted by those interested in distributive education was:¹¹

Pre-employment training programs should be developed for distributive occupations in addition to the present cooperative work-study programs. This pre-employment training program should be eligible for Federal support in addition to the cooperative programs.

The United States Congress, with the passage of the Vocational Education Act of 1963, gave to Vocational Education the opportunity to provide training for all qualified persons interested in such a program.

In the area of marketing and distribution, with which distributive education is concerned, Advertising and Sales Promotion, Retail Selling, and Management are three of many important areas. This study will be confined to these three areas and their relationship to cooperative as well as pre-employment training programs in distributive education.

There are literally billions upon billions of dollars spent each year for advertising in our country. In 1958 the top advertiser in the United States was Procter and Gamble Company. They spent

\$98,701,433 compared with \$61,774,000 in 1955. The biggest bulk of the advertising dollar is spent by the manufacturer. However, the retailers do spend their share of the money on advertising. Sears, Roebuck and Company spent \$2,371,000 in 1955 compared with \$4,633,855 in 1958.

Advertising has been defined as "selling in print" or the presentation of a proposition to people in such a way that they may be induced to act upon it. At any rate, it is a commonly accepted fact that advertising is essentially selling. Advertising is said to be twofold in its functions: (1) to intensify wants or desires and (2) to control the means by which wants or desires are satisfied. Certain needs, wants and desires can be fulfilled and a profit can be made by both the retailer and the advertising company.

In 1967, over 125,000 men and women were employed in professional or other types of positions that required a considerable knowledge of advertising. Over one-third of these people were employed in advertising agencies with more than one-half of them employed in the New York City and Chicago metropolitan areas. Those people not employed in agencies worked for manufacturing companies, stores, as well as other organizations having products or services to sell. They are also employed by advertising media, such as newspapers and magazines. In addition, printers, engravers, art studios and other such establishments employ many advertising personnel.¹²

Many young people are attracted to advertising each year. Those seeking employment opportunities through the 1970's will face stiff competition. However, those with the background and aptitude can look forward to good opportunities.

The Occupational Outlook Handbook states:¹³

Employment in advertising is expected to increase rapidly during the rest of the 1960's and through the 1970's. Among the factors that will contribute to the demand for advertising workers are the overall growth of industry, the development of new products and services, and the increase in competition among producers of industrial and consumer goods. In addition to those needed to fill new positions, several thousand advertising workers will be needed each year to replace those who transfer to other types of work, or who retire, die or leave the field for other reasons. The greatest demand is likely to occur in advertising agencies, since advertisers are turning over more and more of their advertising work to agencies.

The information in the preceding pages regarding the field of advertising and the following information concerning retail selling is presented as a basis for selection of the two subject content areas in which the first year cooperative method students were tested. The importance of trained and qualified personnel in retail establishments is a must. The Occupational Outlook Handbook states:¹⁴

The success of any retail business depends largely on its sales people. Courteous, efficient service from behind the counter or on the sales floor does much to satisfy customers and to build a store's good reputation.

According to the Occupational Outlook Handbook:¹⁵

Saleswork offers career opportunities for young people who have not completed high school as well as for those who have a college degree; for men and women who like to travel and those who do not; and for people who want salaried employment as well as those who aspire to run their own businesses.

Those individuals employed in sales occupations sell for manufacturers, insurance companies, producers of other goods and services, large wholesalers, retail stores of all types and sizes, and other retailers who deal directly with the public. Almost 4.8 million workers were employed in sales occupations in 1966. About one-fourth were part-time employees who usually worked fewer than 35 hours a

week. Two out of every five were women, employed mainly in retail stores.¹⁶

Employment in sales occupations is expected to rise moderately during the rest of the 1960's and through the 1970's. Openings will be created by growth of companies, people leaving the field for other jobs, those being transferred, as well as retirements and deaths of those presently employed. It is expected that some 275,000 workers will be needed each year.

The Occupational Outlook Handbook says:¹⁷

As employment rises, the proportion of part-time workers--already higher than in most occupational groups--is also likely to increase. In the growing number of suburban shopping centers, particularly where many retail stores remain open for business several nights a week, a larger proportion of the sales force is likely to be made up of part-time workers employed only on Saturdays and during the evening shopping hours.

The main reason for the anticipated rise in employment is the prospect of increased sales resulting from population growth, business expansion, and rising income levels.¹⁸ Approximately 2.9 million sales persons, with nearly three-fifths of them women, were employed early in 1967 in some 100 different kinds of retail business in the United States. These people worked in stores that varied from one employee to hundreds of employees. They also worked as door-to-door salesmen, as well as for other retail establishments.

The Oklahoma Employment Security Commission provides data concerning actual employment as well as manpower needs for nine geographical regions of the state plus the Oklahoma City and Tulsa Standard Metropolitan Statistical Area (SMSA).¹⁹ Oklahoma City SMSA utilized 51,100 workers in the wholesale and retail trade area during June, 1967, while the Tulsa SMSA utilized 38,500 such workers. The occupational

area ranked second to the government in total employment in the Oklahoma City SMSA, while in the Tulsa SMSA it ranked second to manufacturing.

It was predicted that needs in the Oklahoma City area would increase 7.9 percent (some 4,040 positions) over the 1967 figure by 1969, while the Tulsa area would increase eight percent (some 3,080 positions) over 1967. By 1972, the Oklahoma City SMSA is predicted to reach 59,880 employees, up 17.2 percent; while the Tulsa SMSA should reach 44,850 employees, a 16.5 percent gain. Most of these predicted positions should be centered in sales, professional-technical-managerial, or clerical occupational groups.^{20, 21}

In Oklahoma, during the month of June, 1967, some 21,801 nonfarm wage and salary workers in the Oklahoma City SMSA were engaged in sales occupations, while 17,026 such workers were employed in the Tulsa SMSA. More than 70 percent of the above workers were employed in wholesale or retail trade establishments.

The forecast was for sales occupations to expand 7.5 percent in the Oklahoma City SMSA while providing 1,638 new jobs and reaching a total employment of 23,439. By 1972, employment should increase another 11.5 percent and provide 2,510 more jobs. Meanwhile, the Tulsa SMSA was forecast to expand by 10.3 percent in sales by 1969, providing 1,758 new jobs and reaching a total of 18,784 employees. By 1972, employment should increase an additional 10.8 percent and provide 1,829 additional jobs with a total employment of 20,613.

As the number of employment opportunities in Oklahoma have increased, so have retail sales. There was a gain of 12.1 percent in 1968 over 1967. The main thrust was provided by retail stores located

outside of the five major urban areas. Stores located in nine selected cities with populations over 10,000 persons were not the principal beneficiaries of the 1968 sales gain. Retailers in communities outside the five major urban areas and nine selected cities were the major contributors to the considerable gain in the State's retail sales picture.²²

One goal of many individuals employed in wholesale-retail sales and service occupations is to ultimately be promoted to the management. It is at this level that the success or failure of a business depends upon the way that managers do their job. The Occupational Outlook Handbook described the nature of managerial work as:²³

Salaried managers usually have one prime aim: to get a job done by directing or planning the work of others. Some, however, are, chiefly policymakers. Managers' responsibilities depend on the management level and type of employer.

Management positions can be classified into three major categories. One is first-line management positions which usually are either supervisory or trainee. The second includes middle-management personnel who are normally department heads in charge of marketing, accounting, personnel, or a similar department. The third category is that of top level managers who make decisions on what products the firm might make, buy, or sell.²⁴

In Oklahoma, during June, 1967, an estimated 24 percent (53,975) of all nonfarm and salary workers in the Oklahoma City SMSA were employed in the professional-technical-managerial occupations. The rate of employment was expected to increase by 6.9 percent or 3,737 new jobs. Many of these jobs were provided by the government and service. By 1972, the employment total should reach 62,218, an

increase of 8,243 new positions, which would be an increase of 15.3 percent over the 1967 level.²⁵ In Tulsa, during June, 1967, one out of every five nonfarm and salary workers were employed in the professional-technical-managerial category. It was anticipated that by June, 1969, there would be a need for 3,596 additional people, 9.8 percent increase, in this area. The projected increase for 1972 is 6,803 additional employees, or an 18.6 percent increase over the June, 1972 figure.²⁶

The outlook for employment during the 1970's is excellent as the employment of managers is expected to increase rapidly.²⁷ The salary range for these individuals will be from approximately \$6,000 for first-line management to \$50,000 for top-level management.²⁸

The information regarding Retail Selling, Advertising and Sales Promotion, and the broad area of Management, in the previous pages was included to serve as both introductory material and a brief overview to show why these three areas were chosen. The three subject content areas Retail Selling, Advertising and Sales Promotion, and Management, will be utilized in the research study to test high school distributive education students in regard to their achievement in a pre- and post-test situation.

Statement of the Problem

The basic problem of the research study was to determine whether the project method of instruction is accomplishing its task of training young men and women to enter the world of work without the benefit of first hand experience in an on-the-job training situation such as the cooperative method approach. An exhaustive and a comprehensive answer to the question implied by the basic problem of the study was

not available, so three subject content areas of study were decided upon to be used in testing students who were previously enrolled and those who were not previously enrolled in the project method of instruction. Differences in their rate of achievement were determined and analyzed.

Selected variables, that will be explained in greater detail later in this chapter, will be taken into account to see if these variables have any influence on the achievement of the cooperative method students.

Students involved in the study will be composed of two distinct groups of first and second year cooperative method students: (1) those presently in the cooperative method class who were previously enrolled in the project method, and, (2) those presently in the cooperative method class who were not previously enrolled in the project method of instruction. The cooperative method students will first be divided into their respective groups of Distributive Education II and Distributive Education III groups and then subdivided into the two groups as indicated above. The D. E. II students are first year cooperative method students and the D. E. III students are second year cooperative method students.

Primarily the question being asked is: which group of students, those previously enrolled in the project method or those not previously enrolled in the project method, achieve at a greater rate once enrolled in the cooperative method class? The answer to this question could possibly go a long way toward answering the question of whether or not the project method prepares the student for a higher level of entry into the cooperative method of instruction class.

Need for the Study

The project method of instruction in distributive education was instituted in the fall of the school year of 1964. In the five years that it has been in effect the program has been on a pilot program basis in many schools, with few people being specialists in the project method of teaching distributive education.

Peter Haines and Edward Ferguson stated in an October, 1966, article concerning the project plan:²⁹

At present, the project method of instruction is relatively untried in distributive education; it can, though, if found to be valid and practical, make many important contributions to the teaching of distribution and marketing. The project method is designed as a means of in-school preparatory instruction, in contrast to the cooperative method, which utilizes an on-the-job training approach. As such, it is a method that readily allows for the training of more students of distributive education. Students benefit greatly from a longer period of time to develop, both physically and mentally, and to decide upon and prepare for their occupational choices. Let us hope that the project method of instruction provided distributive education with a degree of success relatively equal to that of the cooperative method.

It could very well be said that the project method of instruction is still relatively untried today, in many places. There is a definite need for knowing whether the program is accomplishing its primary objective, that of preparing young people to enter distributive occupations without their having been employed in an on-the-job training situation.

In Oklahoma, the primary purpose of pre-employment training is to orient the students to the field of marketing and distribution and specifically to the particular job the student is interested in pursuing as a cooperative student.

The question that is being asked is quite simple: "Does a pre-employment training give the project method student a head start over

the student that was not in a pre-employment training class?" It is hoped that this study will provide information relative to the students' achievement in the three content areas through the project methods of instruction and the cooperative method.

Scope of the Study

The broad guidelines for conducting the study will be as follows:

1. Students involved will be of junior and senior level in Oklahoma high schools.
2. Each first year cooperative student will be administered the test of Retail Selling plus the Advertising and Sales Promotion test.
3. Each second year cooperative student will be administered the test on Principals and Organization of Management.
4. Measurements of prior achievement will be taken from the previous two semesters' grade point average.
5. Schools that utilized the project and cooperative methods of instruction during the 1967-68 and 1968-69 school year will be the population from which the data will be obtained.

Delimitations of the study:

1. Data are applicable only to the population from which drawn, and generalization should be made only to it or a similar population.
2. Prior achievement is limited to grade point averages for the two previous semesters.
3. The only selection procedures employed for including students were (a) completion of both pre- and post-tests, (b) grade

- point average, (c) I. Q. scores all being available, and (d) the school previously offering the project method and currently only the cooperative method of instruction.
4. Eleven different teachers were involved in teaching the three subject content areas. No control was attempted on the approaches or methods of presentation of the individual teachers.
 5. I. Q. scores will be used primarily to show homogeneity of the two parts of the sample: (1) those previously enrolled in the project method and (2) those not previously enrolled in the project method of instruction.

Hypotheses

Hypothesis 1: There will be no significant difference in student achievement on the test Retail Selling between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

Hypothesis 2: There will be no significant difference in student achievement on the test Advertising and Sales Promotion between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

Hypothesis 3: There will be no significant difference in student achievement on the test Principles and Organization of Management between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

Definition of Terms

1. Pre-employment Training. Training provided for students under age 16 in the distributive occupational areas. Projects supplement classroom instruction in the place of on-the-job training.

2. Project Method of Training. The coordination of individualized as well as group projects with classroom instruction. The individualized projects should relate to the specific student's occupational objective (See Appendix J).

3. Project Plan. An organizational pattern for preparatory vocational instruction in distributive education, which involves a regularly scheduled series of individually designed activities that give students an opportunity to apply theory in practice while developing competencies through projects related to their distributive occupational objectives without actual on-the-job training experience.

4. Cooperative Method. A method of instruction, used with distributive education students, which involves on-the-job learning experiences coordinated with classroom instruction. The on-the-job training is done in cooperation with community business agencies, selected in relation to the student's occupational objective (See Appendix I).

5. Cooperative Plan. An organizational pattern for preparatory instruction in which regularly scheduled part-time employment gives students an opportunity to apply theory in practice while developing competencies through training on a job related to their distributive occupational objective.

6. Distributive Occupations. Those occupations followed by proprietors, managers, or employees engaged primarily in marketing

and merchandising goods or services. Such occupations may be found in various business establishments, including but not limited to, retailing, wholesaling, manufacturing, storing, transporting, financing, and risk-bearing.

7. A. V. A. American Vocational Association. A professional organization whose members are associated in various areas of vocational education.

8. D. E. Distributive Education. The letters D. E. are quite often used when describing or discussing distributive education.

Summary

It has been the purpose of this first chapter to present an overview of distributive education as a division of Vocational-Technical Education. In addition, the writer has attempted to present in brief form both the problem to be researched and the need for the research to be completed. Substantiating research literature has been cited.

The remaining four chapters will be devoted to (1) a review of relevant literature, (2) research methodology and procedures used in the research, (3) a presentation and analysis of data collected, and (4) summarization, conclusions, and recommendations concerning the research study.

FOOTNOTES

¹William D. Frazier, William W. Stevenson, and William L. Hull, eds. Proceedings - National Conference on Research, 1968 Vocational Education Amendments, Oklahoma Research Coordinating Unit (Stillwater, Oklahoma, 1968), p. 13.

²Education for a Changing World of Work, Report of the Panel of Consultants for Vocational Education, U. S. Department of Health, Education, and Welfare (Washington, 1962), p. V.

³Taken from a report prepared for the Panel of Consultants on Vocational Education, based on a presentation by Harry W. Ketchum, Director, Office of Marketing Service, U. S. Department of Commerce, at a meeting of leaders of Distributive Education Groups (April 29, 1962) and the Central Regional Education Conference (April 30, 1962), Conrad Hilton Hotel, Chicago, Illinois.

⁴Ibid.

⁵Education for a Changing World of Work, p. 87.

⁶"The Availability of Vocational Education in Six Selected States," A study for the Panel of Consultants on Vocational Education, U. S. Department of Health, Education, and Welfare (Washington, 1967).

⁷States selected as representative of all the other states were: Alabama, Georgia, Iowa, Nebraska, Ohio, and Pennsylvania.

⁸Education for a Changing World of Work, p. 39.

⁹Taken from remarks made by Dr. Rufus W. Beamer, Head, Department of Vocational Education, Virginia Polytechnic Institute, Blackburg, Virginia, to the Distributive Education Section, American Vocational Association Convention, Atlantic City, New Jersey, December, 1963.

¹⁰Education for a Changing World of Work, p. XVII.

¹¹Ibid., p. 226 and XVIII.

¹²United States Department of Labor, Occupational Outlook Handbook, Bureau of Labor Statistics Bulletin Number 1550 (Washington, 1968-69).

¹³Ibid., p. 36.

¹⁴Ibid., p. 268.

- ¹⁵United States Department of Labor, p. 267.
- ¹⁶Ibid.
- ¹⁷Ibid., p. 268.
- ¹⁸Ibid.
- ¹⁹Standard Metropolitan Statistical Area will hereafter be referred to as SMSA.
- ²⁰Manpower in Oklahoma, Oklahoma City SMSA, Oklahoma Employment Security Commission, October, 1968, p. 17.
- ²¹Manpower in Oklahoma, Tulsa SMSA, Oklahoma Employment Security Commission, February, 1969 , p. 18-19.
- ²²"Major Regional Differences in Retail Sales in 1968," Oklahoma Business Bulletin, Journal of the Graduate Faculty, College of Business Administration, University of Oklahoma, Volume 37, Number 4, April, 1969, pp. 3-5.
- ²³United States Department of Labor, p. 237.
- ²⁴Ibid., pp. 237-238.
- ²⁵Manpower in Oklahoma, Oklahoma City SMSA, pp. 20-21.
- ²⁶Manpower in Oklahoma, Tulsa SMSA, pp. 23-25.
- ²⁷United States Department of Labor, p. 239.
- ²⁸Ibid.
- ²⁹P. G. Haines and E. T. Ferguson, Jr., "Distributive Education," Business Education World, October, 1966, p. 16.

CHAPTER II

REVIEW OF SELECTED LITERATURE

Introduction

It was the purpose of Section One of the Vocational Educational Act of 1963 to authorize federal grants to states to assist them in maintaining, extending, and improving their existing vocational education programs. Also, the act was intended to help states develop new vocational education programs. Through these programs the states could provide part-time employment for youth in need of the earnings from such employment to be able to continue their vocational training on a full-time basis.¹

The Vocational Education Act of 1963 listed four main categories that an individual has the opportunity to fit into in order to qualify for vocational training:²

1. Those persons of all ages that are in high school pursuing a high school diploma.
2. Those who have completed or discontinued their formal education and are preparing to enter the labor market.
3. Those who have already entered the labor market but need to upgrade their skills or learn new skills.

4. Those persons who have special educational handicaps, such as academic, socioeconomic, or other handicaps that would prevent them from succeeding in the regular vocational education program.

Thus vocational education was handed a new set of guidelines plus receiving a challenge to train more people than was presently being accomplished. The challenge was to provide training for those individuals who were at least 14 years of age. These individuals are too young to qualify for work permits, but they can be provided with pre-employment training of a project nature. These people would be in the classroom at least one hour per day and would have projects in the classroom substituted for on-the-job training as would be provided in cooperative type programs.

In a speech to the D. E. section of the 1963 A. V. A. Convention, one speaker reported that the Panel of Consultants learned to have great confidence in vocational education, its past achievement, its present leaders and the importance of this educational service in the future.³ He also stated that many members of the Panel did not have a great knowledge of vocational education. However, given the facts, the committee determined that vocational education had demonstrated its worthiness.

The speaker listed four of the more important and immediate problems of vocational education to be solved. In addition he gave each of the problems a priority.

Priority One--Expand the present cooperative school-work program for in-school youth.

Priority Two--Develop experimental and pilot projects.

Priority Three--Develop programs for youth with special needs.

Priority Four--Develop pre-employment training programs for in-school youth.

Dr. Neal Vivian, Specialist in Distributive Education at the Center for Vocational and Technical Education, The Ohio State University, summed up the feelings of many people concerning the passage of the 1963 Vocational Education Act:⁴

By removing the employment requirement, the Act of 1963 has enabled schools to develop preparatory programs utilizing the project method. The greatest challenge to D. E. educators now is to make the high school program accessible to all high school youth who need it, want, and can profit by it.

Until the passage of the 1963 Vocational Education Act, vocational teachers had been able to utilize employment experiences in planning and coordinating learning experiences for their students. With the approval for project type vocational courses, there was no longer to be a common denominator of employment as a prerequisite for admission to the Distributive Education programs.⁵

Related Literature

Hartzler⁶ reported that distributive education has gone through roughly three major stages: (1) the job orientation stage, (2) the career stage, and (3) now the area of knowledge stage. Each of these three stages were discussed in relation to materials used, training of teachers, and types of students.

The author reported that during the first stage distributive education was basically a welfare program, born during the depression and primarily designed to train people to work on a specific job in a short period of time. The materials used were primarily individual

in that each student was trained in a specialized program designed for the particular student. The teacher was considered the key to the success of the program. He was expected either to know or acquire a great deal of information about many jobs so that he might train students in many fields. Because of this need for practical knowledge, the teacher was hired on the basis of his work experience rather than on his academic background. The students were primarily middle class young men and women who wanted to enter the world of work immediately upon leaving high school.

The second stage began after World War II. Because the world had changed it was necessary to make some changes in distributive education. The program was thus changed from job oriented to career oriented. The materials changed from primarily individual instruction to the utilization of textbooks for group instruction. As the trend toward career orientation came about, the teacher qualifications shifted from heavy work experience to a more general knowledge of retailing and its functions. It was during the 1940's and 1950's when colleges and universities began to set up teacher training programs with full-time personnel, simply because successful businessmen could not be lured away from their establishments to accept teaching positions. The students also changed. It has been stated that student enrollment was abundant during the 1930's because if a student had a job the D. E. Coordinator could pick the cream of the crop. With the change toward career orientation the type of job required for distributive education was not the most desirable to the students, so a major public relations campaign was started to keep up the enrollment. It is reported that at this point a major split developed among the distributive education

specialists. Some were still job oriented while others were striving toward a goal they could not see; this goal was actually the third stage.⁷

John Beaumont's appointment to the United States Office of Education probably was the beginning of the third stage.⁸ Hartzler reported that⁹

Mr. Beaumont saw clearly something that many others could only vaguely understand. Distributive Education was only a method of teaching, and not a body of knowledge to be taught. The third stage was now in sight.

The new orientation of distributive education called for training in a body of knowledge that was called marketing and distribution in some states. This represents the fulfillment of movement only dimly grasped some years ago, and also a nearly complete change in thinking.

During the third stage the materials have become more standardized. Hartzler stated that "there is not the allowance for individual instruction that was required when the end goal was merely to place a student on a job."¹⁰ However, this writer would like to point out that in the State of Oklahoma approximately 50 percent of the classroom instructional time is to be utilized for individual instruction with the other 50 percent of the time spent in group instruction.¹¹ The teachers at the present time must be certified within the state they are teaching. It has been speculated^{12, 13, 14, 15} that in the future there will be two teachers in all programs, one who has a background in guidance and psychology to coordinate the on-the-job activities, with the second being a specialist who might be called a related instructor whose background in technical education may be greater than that of the coordinator. Hartzler feels that the student will change as the program modifies. He feels that there should be a good offering for the middle class student but that the emphasis should not be on the immediate job

prospects after high school but on the area of marketing and distribution; this should give the program appeal. The author further stated that the job attained upon high school graduation is far from attractive as a career goal.

The conclusions drawn by Hartzler are quite appropriate:¹⁶

Distributive education has moved through three stages in order to become an academic area of knowledge. The changes in the next few years will probably be more and more in this direction. Whether or not the changes are desirable will depend upon personal opinion and training. The changes should result in more enrollment, more group instruction, and less emphasis on job orientation and more on a distributive education area of knowledge. This in turn should make the program more desirable to more students, and achieve more training in distribution and marketing.

One of the mandates of the Vocational Educational Education Act of 1963 was that distributive education must be offered to students 14 years of age or older. Many cities and towns in several states initiated project method programs of instruction in distributive education. Reasons other than the legislation encouraged schools to include this program in their secondary curriculum. Three of the prevalent reasons were as follows:¹⁷

1. Not all students who desire vocational training in distribution and marketing wish to be placed in actual job training.
2. Not all students who seek cooperative distributive job training can be placed.
3. Each year in a school system which offers distributive education in several schools, a few trainees will be terminated by employers from their training assignments. This creates an immediate problem. Subsequent placement cannot be guaranteed. No adequate provision has been made for these students to continue striving toward vocational competency in marketing and distribution.

In support of the preparatory classes, John Beaumont stated:¹⁸

Educating people for careers in merchandising and marketing is becoming increasingly important. New social and economic problems face our nation every day, and distributive education presents new answers which have been ignored consistently in the past. [..] Unfortunately, distribution has been inclined to emphasize experience and neglect education in preparatory programs. The reluctance to develop an effective partnership recognizing the importance of both elements has been evident in education and business.

Beaumont also expressed the ever present need for cooperative efforts between businessmen and educators if education is to have a more important part in preparation of careers in merchandising and marketing.¹⁹

Arnold H. Scolnick²⁰ reported that, of every ten young people in grade school in 1963, three of them would fail to finish high school for one reason or another. Furthermore, according to Scolnick, the job needs for those youngsters dropping out were being almost completely neglected.

The Project Method

In a 1963 speech to the National Clinic on Distributive Education, Mary Marks, Program Specialist in Distributive Education, made the following remarks in relation to the project method of instruction.²¹

The purpose of introducing this thought [project method of teaching distributive education] here is to underline the fact that distributive education is now to have the challenge of learners bringing with them a wider range of individual differences. We will be concerned with learners who through training will be prepared for employment requiring routine and uniform performance. For them the vocational approach to instruction may be centered on simple rote training in the skills and technology of their occupational capability. We will also be concerned about learners who are capable of more complex performance. The vocational approach, under these circumstances, will require methodology that encourages

creativity, problem-solving in a uniform way, interpretation, analysis and control of job behavior.

Miss Marks went on to say:²²

At whatever level of sophistication occupational goals lie, however, the instructor must provide the opportunity for each individual to meet the demands characteristic of distributive employment--the capacity to observe, listen and interpret intelligently, and the capacity to make judgments about products and services. The instructor must be in a position of confidence concerning the ability of each individual to be resourceful in the performance requirements of his chosen employment situations.

Miss Marks said that, since the time for redirection of distributive education was at hand, much thoughtful attention has been given to curriculum and instructional techniques desirable to developing individual qualifications for employment and career achievement. She summarized those points as:²³

1. Distributive education succeeds or fails on the basis of what individual trainees are able to do with the substance of the curriculum. The methodology includes rote training as preparation for employment requiring uniform performance and problem-solving instruction for purposes of self-direction in employment situations.
2. Participation activities are the essential ingredient of vocational instruction. These may be in the form of cooperative training experiences or occupationally oriented group and individual projects stimulating transfer of subject matter to specific conditions of distributive employment.
3. Supervised occupational experience is the culminating participation activity in distributive education. It may be provided within the framework of systematic instruction or as an organized tutorial-consultant service designed to identify and strengthen weaknesses in qualifications of those having entered regular employment.
4. Training plans showing participation activities for individual enrollees are needed to control and direct the development of performance qualifications. These will provide evidence of achievement and opportunity for individual growth towards employment and career objectives.

5. Participation activities require a commitment of time for the individual enrolled in distributive education. Allowance for this time should be made in the credit load scheduled for him.
6. Adequate time must be available to the teacher to develop and utilize community and school resources for occupationally directed learning experiences. Coordination of instruction with current practices and trends affecting employment qualifications takes on increased significance when distributive education is extended into the areas of preparatory training.

John A. Beaumont²⁴ in a speech to the Governor's Conference on Education for Distribution in Indiana, said that for preparatory educational programs to be effectively used as a basis for employment that they must have breadth and specificity at the same time. He felt that breadth was necessary in order not to narrow or limit the preparation of the students to only one specific job. The program will need specificity in order that the program will not become so general that it does not apply in any particular occupation.

Beaumont also stated that education for occupational preparation has long recognized that participation and experience are essential elements of the program. Effective preparatory education in distribution must of necessity retain "doing" elements of this nature if there is to be maintained a relationship between theory and practice. He felt that supervised occupational experience under a cooperative plan should remain the dominant technique of participation. However, systematic instruction should be provided on a school-work basis in the form of the project plan of instruction. Under the project plan, students would have the opportunity to work as a member of a team as well as individually.

William H. Antrim, D. E. Coordinator at Palo Verde High School, Tuscon, Arizona, states:²⁵

The advent of preparatory classes in which on-the-job training plays a less dominant role presents the DE Coordinator with the challenge of a change in classroom practice. The instructor must formulate laboratory experiences that will of themselves help students to develop the vocational understandings, skills, and attitudes necessary for success in later practical situations.

The utilization of model store facilities is one method through which this challenge can be met. This method allows the students to participate in a simulated situation, made as realistic as possible, in which the learning experiences can be as varied as they would be during employment in a retail store. Antrim also said that since the project method seeks to meet the specific problems of the project student head-on, that the projects should be prepared in relation to the student's career objective. Therefore, they are generally individual projects.

One type of group project that is beneficial to the project students is the simulated merchandising project. The model store that is in the D. E. classroom is stocked with actual and dummy merchandise. The stock is varied enough so as to meet the needs of all the students in relation to their career objectives. Through utilization of this method, the instructor can plan projects with built-in errors for the students to detect. The students also have the opportunity to put some of their classroom experience to work in a simulated situation involving the student as the merchandiser.²⁶ By means of the model store situation, the project students are able to face situations similar to those they will meet when employed.

In a speech to the 1965 A. V. A. Convention, Mary Marks remarked:²⁷

Unlike the cooperative situation, where the student is employed and his training supervised by a department head or manager, the project laboratory relies upon the teacher-coordinator to plan and supervise trainee participation experiences.

It should be pointed out that the use of projects is not new to distributive education simply because of the advent of the project method of instruction. Haines and Ferguson stated that "the good D. E. coordinators have been using projects effectively since the beginning of D. E. in the 1930's."²⁸ The thing that is new about projects in distributive education today is that in preparatory classes the project is the primary means of the instruction in teaching-learning situations.

Another factor that should be mentioned is that the project method is not unique to distributive education;²⁹ it has been utilized in teaching for a long time.³⁰

Regarding the early usage of the project method in teaching, Haines and Ferguson stated: "The rationale underlying the introduction and early use of the term 'project' was established by Franklin Ernest Heald, specialist in agriculture education in the U. S. Department of Agriculture, 1914-1918."³¹

Haines and Ferguson went on to say:³²

The basic difference between Heald's use of projects and projects used in distributive education today is that projects in Heald's era were broad in scope and not individually tailored for students' particular occupational goals.

The project method of teaching was later introduced into general education and William Kirkpatrick, who was a leader in the progressive education movement, was quick to adopt the idea. Chancey³³ reported that Kirkpatrick first proposed the project method of teaching to a

group of educators at a Chicago meeting on April 28, 1917. Kirkpatrick was a great believer in the child-centered school and maintained that "the great end of life is not knowledge but action."^{34, 35} Kirkpatrick also believed that "education was the development of character and personality, not the acquisition of bookish information."^{36, 37}

Chancey has defined the project method as being:³⁸

...a method of instructing centering around meaningful individual or group activities of education value, generally involving investigation and solution of problems, and frequently involving the use of handling of products and/or equipment.

The author further stated that the key words of his definition were "meaningful activities of education value" and "involving investigation and solution of problems." If the project is not meaningful to the student, it is of no value to him and he has wasted his time in carrying out some form of non-useful investigation.^{39, 40, 41, 42}

Haines and Ferguson stated the following concerning the project method:⁴³

It must be remembered that a project is legitimate only when the students' labors can be evaluated in some way. The mere fact that the students visit several distributive businesses does not constitute a project; the visits must be coupled with reporting and discussion.

As Haines and Ferguson stated, the primary aim of the project method is not to supplement or replace the cooperative method of instruction:⁴⁴

...but to provide meaningful instruction for many thousands of D. E. students who, for a multitude of reasons, are not able to gain their instruction through the cooperative method. The project method will become the vehicle to provide instruction in distribution and marketing to the high school student in the small rural community as well as in the large inner-city school.

Chancey summed up what has been said in the previous pages in one simple sentence, "Teacher planning is the key to successful utilization of the project method."⁴⁵ It should be obvious, though, that this statement refers to all education as well as the project method.

Samson and Thompson pointed out quite clearly that the objectives of the project and cooperative method programs are the same as those for distributive education in general:⁴⁶

- (a) to offer instruction in distribution and marketing,
- (b) to aid in improving the techniques of distribution,
- (c) to develop an understanding of the social and economic responsibilities of those engaged in distribution in a free, competitive society.

Both programs, project and cooperative, must be able to stand on their own and provide the instruction and experience necessary to bring the students to the level that is being sought. There are students in many high schools that do not fall into the category of those students interested in the cooperative method and, therefore, are prime candidates for the project class. Three groups of such students might be categorized as follows:⁴⁷

1. Students, not interested in college, who face the prospect of graduating without possession of any salable skill.
2. Students whose aptitudes and interests are not suitable for the regular cooperative program.
3. Students who may or may not possess the necessary aptitude for the regular cooperative program but who are attending high schools too small to qualify for the regular cooperative program.

The Cooperative Method

The cooperative method of instruction in distributive education has been utilized for many years and the value of the work experience that the students receive while on the job has long been established.⁴⁸

While cooperative distributive education students are placed in a business establishment somewhere within the broad spectrum of marketing and the distribution of goods and services, other cooperative work experience programs have been placing students in many diverse occupations. In Sweden, the Parliament made a decision in 1962 that all children in class eight (which normally consists of 15-year olds) "should be given vocational guidance--including practical work in actual working conditions."⁴⁹ The idea behind this was to acquaint the children with actual working conditions before they found themselves in the job market.

The idea of acquainting students with the actual conditions of a job is but the beginning for students enrolled in the cooperative method of distributive education. The student is "trained" for his job, both while on the job and at school. Thus, the word "cooperative" takes on meaning in that the teacher-coordinator and the store manager, department manager, or training supervisor are working together to enable the student to progress to the ultimate of both his skill and ambition. In regard to the level at which the student actually enters the job market, Meyer and Toupin stated:⁵⁰

Generally speaking, the level of entry occupation in the field of distribution corresponds to the amount of individual responsibility and the importance of the judgements required in the kind of distribution in question.

For those high school students interested in continuing in a distributive occupation upon high school graduation, the outlook for distribution has never been brighter.⁵¹ Many large chain store companies are urging young people to begin careers in retailing.^{52, 53, 54, 55, 56} Training programs are set up with these large chains and talent for these programs is being recruited by the different companies.

Consequently the student currently employed on a cooperative basis has an excellent opportunity to continue with the company after program completion. If the employee wishes to continue his education after high school many firms will gladly keep the employee on a part-time basis.

Concerning a college education as preparation for entering retailing, Meyer and Toupin said:⁵⁷

While in the past there has been a mixed reception to a college or university education as preparation for careers in distribution, particularly retailing, there is strong evidence that this situation is changing rapidly. The trend toward education for distribution is augmented by (a) the growing complexities of the operating practices of distributive trades accentuated by the need for greater skills in the management and ownership of business (learning by experience alone is no longer sufficient), (b) the importance of distribution to national security as it makes possible the benefits of mass production, and (c) the increasing importance of distribution as demonstrated by the constant increase in the proportion of gross national product it generates and the steady rise in the number of jobs it provides.

High school students, as well as other adults, have a need and desire to be told and shown that faith is held in them. Such was the case in West Irondequoit High School in Rochester, New York.⁵⁸ A long-standing problem of the school was that of getting textbooks sold to all 2,500 students, who were required to purchase their own books. In past years, it had normally taken approximately four weeks for the students to purchase their books in the small school store. It was suggested by the local D. E. coordinator that the gymnasium be turned into a book store and that the distributive education students stock the store and operate the check-out stands. The proposal was accepted by the local administration, even though some eyebrows were raised, thinking that the idea was rather unusual.

The venture was a complete success, however. The distributive education students received experience in merchandising, pricing, inventory, and check-out stand procedures (including cashing checks and checking up their register each day). In a total of 18 hours over \$17,000 worth of textbooks were sold to over 2,500 students, compared with the four weeks normally required in years past.

Cooperative on-the-job training experience can be quite complete, as exemplified by the program developed by the Sunray D-X Oil Company of Tulsa, Oklahoma. Faced with a problem of too few qualified dealers and skilled employees in their stations, the company launched a program in cooperation with the distributive education programs in Tulsa, called "Learn and Earn."⁵⁹

The program started by giving selected students four weeks of intensive training in all phases of service station operation. Short courses ranging from motor tune-up to driveway salesmanship were included. The cost of the program was shared equally by the company and the dealers, with the twofold aim of the project being accomplished. Those aims were:⁶⁰

1. to give boys a marketable skill, so necessary to youth who have completed their education,
2. and to provide a valuable source of trained and qualified dealers who can market Sunray D-X products successfully.

Much has been spoken and written about what the cooperative student should learn, both in the classroom and while at his job training station. It seems appropriate at this time to point out that "distributive education is more than a study of salesmanship"⁶¹ even though the classroom work many times is similar to that of regular academic classes. Regarding these similarities and differences, Lowe remarked:⁶²

The most significant difference between distributive education and college preparatory subjects is that distributive education is vocational in nature with an effort being made to provide individualized instruction necessary to help the students succeed on the job.

Gagne defines learning most appropriately as, "A change in human disposition or capability, which can be retained, and which is not simply ascribable to the process of growth."^{63, 64}

Ashmun reported further that "Gagne also indicates that the teacher is dealing with a learner whose senses, nervous system, and muscles are stimulated into nervous activity, or responses, usually thought of as some type of performance."⁶⁵

A case presented by Ashmun illustrates how true the above statements concerning learning actually are. A certain D. E. teacher-coordinator was deep in conference with one of his students whom he had observed on the job the day before. The student had reported to his place of employment, a men's clothing store, in a sport shirt, slacks, and unshined shoes. During the conference the coordinator found out that the student did not own a white shirt nor a suit or sport coat. He had not told the coordinator because of his shyness. With this information the student and coordinator went to the employer, who agreed to sell the student the necessary clothing at a reduction, with a portion of the money to be deducted from the student's salary each week. A later followup showed the student neatly dressed and a productive salesman.⁶⁶ The main point that the writer wishes to make here is that there are many varied types of learning situations that students are confronted with. This student learned, as he "changed his behavior in a positive way as a result of a personal experience."⁶⁷

Research Studies

A thorough search of the related research literature revealed several studies to incorporate into this section of the review of literature. Two studies will be described at this point and two others later in this chapter. Ferguson⁶⁸ and Vivian⁶⁹ were interested primarily in distributive education and the learning abilities of distributive education students. Both researchers used pre- and post-tests on specific subject areas as a portion of their research design, and both used high school students as subjects. Ferguson's research design employed a control group while Vivian used only specific variables as controls in his study. Ferguson and Vivian used aptitude and achievement test scores as variables and as sources of data for their studies. Other variables used included the socioeconomic status which both researchers utilized. Ferguson compared his data by sex of the student while Vivian did not. Economic understanding was used by Ferguson and Vivian as a control variable.

As for the actual design, each researcher's paper might be described as follows:

Ferguson: Pre- and post-test over two specific areas were administered, along with the utilization of a control group and specific variables. Project and cooperative classes were given a treatment (classroom instruction) while the control group was not.

Vivian: Pre- and post-test on Economic Understanding with the inclusion of specific variables and the classification of the students' socioeconomic categories as levels of scholastic ability.

Ferguson's study⁷⁰ was a comparison of the effectiveness of the project and cooperative methods of instruction based on two competencies

TABLE I
GRAPHICAL ANALYSIS OF TWO MAJOR RESEARCH STUDIES

	Ferguson (a)	Vivian (b)
Age of student used as variable.	*	
Aptitude test scores used for portion of data.	*	*
Class rank used as variable.		*
Control group used.	*	
Economic understanding used as variable.	*	*
Only variables used as control.		*
Parental identification used as a variable.		*
Pre- and post-test.	*	*
Prior achievement of student used as variable.	*	*
Sex of student used as variable.	*	
Socioeconomic status of student used as variable.	*	*
Used high school students.	*	*

(a) Edward Trevor Ferguson, "A Comparison of the Effectiveness of the Project and Cooperative Methods of Instruction on Selected Competencies in Distributive Education at the Secondary Level," (Unpublished doctoral dissertation, Michigan State University, 1967).

(b) Neal Edward Vivian, "Economic Understanding of Distributive Education Students," (Unpublished doctoral dissertation, University of Minnesota, 1966).

with several variables included. The competencies⁷¹ were (1) Economic Understanding and (2) Sales Aptitude. The variables⁷² included (1) socioeconomic background, (2) age, (3) sex, (4) prior achievement of the students as measured by the Sequential Tests of Educational Progress and Reading, and (5) the teacher's attitude was considered through the use of the Minnesota Teacher Attitude Inventory. These competencies and variables were incorporated to compare the effectiveness of the project and cooperative methods of teaching high school distributive education.

Ferguson's sample⁷³ consisted of 733 students in ten Michigan high schools. Each school contained four groups of students: (1) an eleventh grade project method distributive education class, (2) an eleventh-grade English or social science control class, (3) a twelfth-grade cooperative method distributive education class, and (4) a twelfth-grade English or social science control class.

The data gathered were pertinent to those variables previously listed. A pre-test was given on Economic Understanding as well as on Sales Aptitude to all of the participating students. The distributive education students were then administered the treatment (classroom instruction) on each of the competencies tested, while the control groups were not given the treatment. At the conclusion of the treatment the post-test (identical to pre-test) was given to each of the students involved. Three statistical procedures were used to analyze the data collected:⁷⁴ (1) t-tests, (2) correlational analyses, and (3) analyses of covariance.

The major findings of Ferguson's study were:⁷⁵

1. There was no statistically significant correlation between the variables of students' socioeconomic status

students' age, students' sex, and teachers' attitude inventory scores and the scores students attain on standardized achievement tests measuring reading comprehension, economic understanding, and sales comprehension.

2. There was a positive correlation between student prior achievement, as inferred from test scores achieved on the STEP - Reading, and scores students attain on standardized achievement tests of economic understanding and sales comprehension.

3. On the whole, the students in the two control groups scored higher than the distributive education students on the reading comprehension test.

4. The results showed that two control groups (English and/or social science classes), on the whole performed as well as, or in some cases, better than the two distributive education groups on the tests of economic understanding and sales comprehension. However, after initial differences were adjusted for through the analyses of covariance, the differences in the scores of the two grade-level control groups and their respective distributive education groups were not significant.

5. The difference in the scores of the cooperative method classes and the project method classes on the tests of sales comprehension were significant. There was no significant difference between the scores of these two groups on the test of economic understanding. On the whole, the cooperative method classes scored higher on all the tests, though only significantly higher on the tests of sales comprehension.

Vivian's study⁷⁶ considered the economic understanding of distributive education students; however, he did test other high school seniors (5,047 total) in Indiana. The purpose of his study was to determine relationships between economic understanding and other factors. Those factors were: (1) socio-economic background of the student, (2) scholastic ability, (3) participation in the distributive education program, (4) instruction in economics and (5) participation in the Junior Achievement program.⁷⁷

The measuring instrument of the study was The Test of Economic Understanding, which Ferguson also used. The pre-test was administered

in October and the post-test at the end of the school year. Additional data were collected on each student, including: (1) parental occupation, (2) class rank and (3) subject completed in school. The students were classified into four socioeconomic categories and into three levels of scholastic ability.⁷⁸

The analysis of variance technique with unweighted means was used to test the hypothesis for pre-test, post-test, and adjusted gain scores on The Test of Economic Understanding. The hypothesis tested was:⁷⁹

There are no significant differences of mean scores of students classified according to socioeconomic level, class rank, formal instruction in economics, participation in the distributive education program and participation in the Junior Achievement program.

The major findings of Vivian's study were as follows:⁸⁰

1. Parental Occupation. On pre-test, post-test and adjusted gain scores, no significant differences appeared for socioeconomic level of the student as indicated by parental occupation, so the hypotheses of no difference was accepted.
2. Class Rank. On the pre-test, post-test and adjusted gain scores, the hypotheses of no difference was rejected at the .05 level of significance.
3. Instruction in Economics. On the pre-test and post-test, significantly higher scores were made by economics students as compared to those not taking the course. However, no significant difference was found in the adjusted gain scores.
4. Participation in the Distributive Education Program. The distributive education students scored significantly lower on the pre-test and post-test than the nondistributive education group. No significant differences appeared between the two groups on the adjusted gain scores.

Vivian's conclusions included:⁸¹

1. Formal instruction in economics, participation in the distributive education program and in the Junior Achievement program are not significantly related to level of economic understanding of high school seniors.

2. Socioeconomic background is not significantly related to the level of economic understanding of the student.

3. Scholastic ability of the students is significantly related to their level of economic understanding.

The two research studies by Ferguson and Vivian, as described in the previous pages, related primarily to the testing of distributive education students in academic subject content areas. Both of the researchers controlled several variables while analyzing the data collected. Two additional studies, by Kintz⁸² and Coakley⁸³ are relevant to this researcher's study and mention of them was deemed necessary.

Kintz⁸⁴ found in his study of the units being covered in project approach distributive education classes that Retail Selling was covered in 100 percent of the classes; Advertising was covered in 98.1 percent of the classes; and, Management was covered in 85.7 percent of the classes.

Coakley⁸⁵ examined the effectiveness of project training in the classroom in distributive education by asking students and teacher-coordinators to "respond to questions that would indicate attitude, level of accomplishment, and reaction to projects as a result of experience in project training." Coakley's findings included:⁸⁶

1. Students reported that projects gave them a better understanding for working in marketing and distribution.
2. Students reported the projects to have been well managed by the teacher-coordinator.
3. Student attitudes toward the content learned in the competencies were favorable.

4. The teacher-coordinator reported the most effective projects were those in which there was much student involvement.

Projections

Within the Vocational Education Amendments of 1968⁸⁷ was the stipulation that each state:⁸⁸

...must use at least 15 percent of its annual basic vocational education allotment for programs for the disadvantaged (persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in regular programs).

Specific programs for the disadvantaged could be initiated through distributive education with this money; however, some distributive education coordinators are helping their disadvantaged youngsters learn to help themselves by enrolling them in their regular high school D. E. program.^{89, 90, 91, 92} Through the D. E. program the students are able to find employment, gain a basic understanding of both the world around them and the business world in which they are employed.

Scolnick said "the ultimate goal of distributive education is the preparation of the student for useful employment."⁹³ This statement reflects back to all students enrolled in the high school distributive education program. It is generally recognized that not all high school D. E. students will immediately enter the labor market, as some will attend colleges or other types of institutions. Chrismer's closing statement seems to echo what has been written in the past few pages.⁹⁴

If schools are to be significantly better, they must be significantly different. The most important consideration for any business department organizing for improvements is

to accept a complete adjustment to such a philosophy, and to the improvements it implies. The intent is to provide a better education for all boys and girls.

Summary

It has been the purpose of this chapter to present a sound basis of research and other current literature regarding the cooperative and project methods of instruction in distributive education. The research studies reviewed showed that some research has been done with the two above mentioned methods of instruction and that more does need to be accomplished. The other literature reviewed provided background material concerning distributive education.

The following three chapters will present (1) Research Methodology and Procedures, (2) Presentation and Analysis of the Data, and (3) Summary, Conclusions, and Recommendations.

FOOTNOTES

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³ Taken from a speech on Distributive Education's responsibility to youth at the Distributive Education Section, American Vocational Association's Convention, Atlantic City, New Jersey, December, 1963.

⁴ Neal E. Vivian, "Forward From 50 Years of Experience in Distributive Education," American Vocational Journal, March, 1967, pp. 33-34.

⁵ Taken from a speech presented by Miss Mary Marks, Program Specialist, Distributive Education, Department of Health, Education, and Welfare, U. S. Office of Education, at the National Clinic on Distributive Education, Washington, D.C., October, 1963.

⁶ F. E. Hartzler, "The Three States of Distributive Education," The Journal of Business Education, April, 1964, pp. 289-290.

⁷ Ibid., p. 290.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Interview with M. J. DeBenning, Oklahoma D. E. State Supervisor.

¹² Hartzler, p. 290.

¹³ Reno S. Knouse, "Innovations in Distributive Education...Planning to Teach," Business Education Forum, April, 1967, pp. 5-6.

¹⁴ Mary V. Marks, "The Visibility of Vocational Integrity in Distributive Education," Business Education Forum, May, 1966, pp. 14-16.

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¹⁶ Hartzler, p. 290.

17 John E. Calvert, "A Pilot Program to Establish an Intensive Training Distributive Education Laboratory," Business Education Forum, April, 1968, pp. 11-12.

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21 Mary Marks, Taken from 1963 speech to the Distributive Education Section, American Vocational Association's Convention.

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23 Ibid.

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27 P. G. Haines and E. T. Ferguson, Jr., "Distributive Education," Business Education World, November, 1966, p. 34.

28 P. G. Haines and E. T. Ferguson, Jr., "Distributive Education," Business Education World, December, 1966, p. 34.

29 Haines and Ferguson, November, 1966.

30 Gilbert E. Chancey, "The Project Method in Distributive Education," The Balance Sheet, November, 1968, p. 100.

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41 Helen L. Warren, "Retail Students Meet the Project Challenge," The Journal of Business Education, November, 1968, pp. 54-56.

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44 Ibid.

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55 John S. Roberts, "The Name of the Game is JOBS NOW," American Vocational Journal, February, 1968, pp. 24-26.

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⁵⁹DeBenning, p. 30.

⁶⁰Ibid.

⁶¹The writer has taken the liberty of using the title of the following article to put emphasis where he deemed necessary. Calvin D. Lowe, "Distributive Education is More Than a Study of Salesmanship," The Balance Sheet, September, 1965, p. 19.

⁶²Ibid.

⁶³Richard Ashmun, "Applied Learning Theory in DE," American Vocational Journal, April, 1967, p. 35.

⁶⁴Robert M. Gagne, The Conditions of Learning (New York, 1965), p. 5.

⁶⁵Ashmun, p. 35.

⁶⁶Ibid.

⁶⁷Ibid.

⁶⁸Edward Trevor Ferguson, "A Comparison of the Effectiveness of the Project and Cooperative Methods of Instruction on Selected Competencies in Distributive Education at the Secondary Level," (Unpublished doctoral dissertation, Michigan State University, 1967).

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⁷⁰Ferguson.

⁷¹Ibid., p. 7.

⁷²Ibid.

⁷³Ibid., p. 9.

⁷⁴Ibid., p. 73.

⁷⁵Ibid., pp. 120-124.

⁷⁶Vivian, "Economic Understanding of Distributive Education students."

⁷⁷Ibid.

⁷⁸Ibid.

⁷⁹Vivian, "Economic Understanding of Distributive Education Students."

⁸⁰Ibid.

⁸¹Ibid.

⁸²Charles L. Kintz, "An Evaluation of Project Approach Distributive Education Classes," (Unpublished masters report, Montana State University, 1965).

⁸³Carroll B. Coakley, "The Effectiveness of Project Training in Distributive Education," (Unpublished doctoral dissertation, University of Wisconsin, 1968).

⁸⁴Kintz.

⁸⁵Coakley.

⁸⁶Ibid., pp. ii-iii.

⁸⁷The Vocational Education Amendments of 1968 are actually amendments to the Vocational Education Act of 1963.

⁸⁸U. S. Department of Health, Education, and Welfare, The Vocational Education Amendments of 1968, U. S. Government Printing Office, Superintendent of Documents Catalog Number FS 5.280:80064 (Washington, 1969), p. 3.

⁸⁹Michael Henman, "A Way Up and a Way Out Through D.E.," Business Education World, January, 1969, pp. 15-16.

⁹⁰Richard G. Shaffer, "You Can Tip the Scales for the Disadvantaged Student," Business Education World, January, 1969, pp. 15-16.

⁹¹Maria L. Franklin, "Exploratory D.E. for the Disadvantaged," American Vocational Journal, November, 1967, pp. 58-59.

⁹²Maria L. Franklin, "We Tried Exploratory D.E. for the Disadvantaged," DE Today, September, 1968, pp. 2-3.

⁹³Scolnick, "Distributive Education - 1970 - Where is D. E. Heading?" Part One.

⁹⁴John M. Chrismer, "Innovations in Distributive Education and Office Occupations in the Rural Community," Business Education Forum, November, 1967, p. 22.

CHAPTER III

RESEARCH METHODOLOGY AND PROCEDURES

Introduction

The primary objective of the study was to determine whether the project method of instruction is accomplishing its task of training young men and women to enter the world of work without the benefit of first hand experience in an on-the-job training situation such as the cooperative method approach. An exhaustive and a comprehensive answer to the question implied by the objective of the study was not available, so three subject content areas of study were decided upon to be used in testing students that were previously and those that were not previously enrolled in the project method of instruction. Differences in their rate of achievement were determined and analyzed.

The objective of this chapter is to present (1) the instruments utilized in the study, (2) the method of determining socioeconomic status rank, (3) the population from which the sample was taken, (4) data collection procedures, and (5) the method of data analysis employed.

Instrumentation

Two test instruments, (See Appendix D) one on Retail Selling and the other on Advertising and Sales Promotion were administered to each of the first year cooperative method students. Each of the second year

cooperative method students were administered the test on Principles and Organization of Management. The test instruments utilized were developed for this study. In order to derive these instruments, a pool of author published test items were gathered from several publishing companies^{1, 2, 3, 4, 5, 6, 7, 8} that supply distributive education textbooks. Each of the three original instruments included 90 items. In order to choose the most appropriate and meaningful items for the final instruments to be used in this research, the Retail Selling and Advertising and Sales Promotion instruments were administered to 67 first year cooperative method distributive education students in two metropolitan area high schools.

An additional objective of the pilot administration of the two test instruments was to ascertain the discriminating power for each of the test items included. To do so, the item discriminating power index test was applied to the upper and lower 27 percent of the usable test forms. Discrimination power indexes ranged from a high of +.76 to a low of +.29 (See Appendix H).

Ahmann and Glock state that:⁹

The discriminating power of a test item is its ability to differentiate between pupils who have achieved well (the upper group) and those who have achieved poorly (the lower group). To find a measure of discriminating power of a test item we must first specify the characteristics of the upper and lower groups.

Ahmann and Glock report that an effective means of determining the discriminating power of a test is to:¹⁰

...compute the number of correct discriminations and the number of incorrect discriminations, then to find the difference between them (the net amount of effect discrimination), and, lastly, to express the discriminating power of the test item in terms of the percentage that the net amount of discrimination is of the maximum possible correct discrimination.

The formula employed to determine the discrimination factors is as follows:¹¹

$$D = \frac{U - L}{N}$$

where

D = index of item discriminating power.

U = number of pupils in upper group who answer the test item correctly.

L = number of pupils in the lower group who answer the test item correctly.

N = number of pupils in each of the two groups.

According to Ahmann and Glock, test should be composed of items with levels of difficulty near 50 percent. These items will show more discriminating power than those of widely varying levels of difficulty. The authors also state that test items with less than +0.20 discriminating power are questionable items. Any negative value (such as -0.40) discriminates in the wrong direction; the discriminating power of the item is unsatisfactory and should not be included in the instrument. The authors recommend that test items with discriminating powers between +.40 and +.70 be included.

The second year cooperative students' test instrument on Principles and Organization of Management also originally included 90 items that were combined from the same publishing companies' standardized test questions on Management. This instrument was developed too late in the school year to be administered to second year cooperative distributive education students in order to obtain the reliability factor of each of the test items. So that the final test instrument would consist of test items of at least face validity, the original 90-item test on basic Management was submitted to a panel of three jurors¹² for their consideration. The panel was asked to indicate those items they

believed were representative of the material included in the appropriate unit of study. Those items that two of the jurors concurred as not being representative were cast out of further consideration. From the total of 90 items, only three questions were indicated by two jurors to be nonrepresentative. Of the remaining 87 items, one of the three jurors indicated that 40 of them were nonrepresentative; however, the other two jurors felt they were representative. It should be pointed out that "one juror" referred to is a combination of responses from the panel of three jurors and not just a single juror indicating that 40 items were unrepresentative. In choosing the 33 test items to be included, a table of random numbers was utilized.¹³

In addition to the three test instruments, a student data sheet (See Appendix A) was devised to obtain certain relevant and needed information concerning the student and the student's father (or mother if the father was deceased). Portions of the information on the data sheet were utilized as variables in the statistical analysis of the achievement scores of the students.

Determining Socioeconomic Status

Rank of Family

The primary basis for determining socioeconomic status rank for the family of each student participating in this study was the NORC Occupational Prestige Scale, which is often referred to as the North-Hatt Occupational Prestige Scale.^{14, 15} The scale was developed as a result of a 1946 research study by North and Hatt and was based upon the response of 2,920 persons. The original list included one hundred occupations based upon the most frequently reported occupations from

all status levels in the 1940 census.¹⁶ The scale later was modified to the present ninety occupations listed in order from the most to the least prestigious rank.

In order to more accurately determine the socioeconomic status of all families, the Duncan Socioeconomic Index^{17, 18} was used to classify those occupations not listed in the NORC Scale. The Duncan scale lists four-hundred twenty-five occupations and was constructed so that its scores could be easily transformed to the NORC scale (See Appendix B).

Sample

The population in this research study consisted of distributive education students enrolled in the cooperative method of instruction classes in Oklahoma high schools that offered the project method of instruction during the 1967-68 and 1968-69 school years. The sample consists of those students enrolled in the cooperative method of instruction in distributive education during the 1969-70 school year at those schools that previously offered the project method. Students involved are juniors and seniors enrolled in first and second year cooperative method distributive education.

From a total population of 16 high schools, complete data were collected from eleven schools (See Appendix F), partial data from three schools, and two other schools were unable to participate in the research. Partial data from the three schools were not included in the study.

The total number of students participating in the study totaled 264. First year cooperative method students number 172, with 87 students having previously been enrolled in the project method of

instruction. The second year cooperative students accounted for the remaining 92 participants. Forty-five of these students had previously been enrolled in the project method and 47 had not previously been enrolled in the project method (See Appendix E).

Geographical locations of the high schools involved ranged from western and southwestern to the eastern and northeastern as well as the central portion of the State of Oklahoma. Population of the cities in which the schools were located ranged from approximately 7,000 to 350,000.

Data Collection

Distributive education teacher-coordinators were contacted by the researcher during the latter portion of the 1968-69 school year and asked to participate in the research study. Each teacher was asked to participate to the extent of administering the test instruments to his or her students and collecting I. Q. scores and grade point averages for each participating student. Each of the teachers contacted was willing to participate and the administrators of their respective schools were willing to participate in the research. Letters confirming the administrator's agreement to allow research to be conducted in the individual schools were sent to each of the superintendents involved (See Appendix G). One point made clear to each administrator was that the data collected would be kept in the strictest of confidence and that a comparison of individual schools would not be made.

Packets containing the appropriate materials were combined for each of the participating teacher-coordinators. Each packet contained copies of each of the three test instruments to be administered to the students

involved in the study, pre- and post-test answer sheets for each of the instruments, student data sheets, and a procedure form (See Appendix C) for administering the test instruments. Directions were spelled out in detail as to when to administer the test instruments and have the student data sheet completed by each participating student. The student data sheet was to be completed during the first two weeks of school. Each of the pre-tests were to be administered to the students during the first week of school. Each test instrument was designed in length so that it could be administered to the students in a maximum of one class period of 50 minutes. The post-test was the same as the pre-test and required a maximum of 50 minutes class time. The student data sheet required a maximum of 15 minutes to complete. The total maximum amount of class time spent in regard to the research study was three hours per student.

A formal orientation session was held with the participating teacher-coordinators during the August, 1969, Vocational-Technical Education Workshop in Stillwater, Oklahoma. During this meeting packets of test instruments, answer sheets, procedure forms, and return envelopes were given to those teachers participating. The procedure form was explained along with the purpose of the research study and questions concerning the study and the teachers' responsibilities were answered.

Statistical Procedures

Three research hypotheses were presented in Chapter One. The three hypotheses stated the null form that there would be no significant difference in achievement on selected test instruments between

the two groups of students previously and not previously enrolled in the project method of instruction. The data relating to these hypotheses were statistically tested through the Single-Classification Analysis of Variance technique as described by Popham.¹⁹

Supportive data regarding the influence of socioeconomic status of the students' families on the achievement of students previously and not previously enrolled in the project method were presented as supplementary data for the three hypotheses. The Multiple-Classification Analysis of Variance statistical technique as described by Popham²⁰ was used to analyze the data relating to the influence of socioeconomic status on the students' rate of achievement regarding each of the three hypotheses. Specific hypotheses relating to socioeconomic status were not constructed for the purpose of rejecting or failing to reject as a result of the data analysis. Instead, the data analysis served as a basis as to whether socioeconomic status influenced the students' rate of achievement on the test instrument.

The variables I. Q. and Grade Point Average were also included in the research study. I. Q. scores of the students participating in the study were used primarily to test for homogeneity of groups. In addition, the I. Q. means were statistically tested by using the multiple analysis of variance technique to determine whether there was a relationship between I. Q. and the year enrolled in the program.

Student grade point averages were included as a variable to determine if a relationship existed between (1) socioeconomic status of the students' families and the students' grade point averages and (2) socioeconomic status of the students' families and whether the students were previously or not previously enrolled in the project method. The mean

grade points of the students were tested by utilizing the multiple analysis of variance technique to determine whether the above relationships existed.

As the data were received from the participating teacher-coordinators the test answer sheets were grouped by subject content area and hand scored. The accompanying student data sheets were grouped according to the year in which the student was enrolled in the cooperative method. Test scores for the first year cooperative students on the two tests Retail Selling and Advertising and Sales Promotion were transferred to the respective student data sheets for easy access to all data. For purposes of anonymity, each student was assigned a code number that appeared on each test instrument administered to that student as well as his data sheet. This same procedure was carried out for the second year cooperative students who were administered the test Principles and Organization of Management.

The next step was to compile a master listing of all student test scores, grade point averages, I. Q. scores, and socioeconomic status rank of the students' families. The master listing was compiled by individual schools solely for the purpose of reporting to each teacher-coordinator how his school compared with the mean of all schools involved. This study does not include a comparison of individual schools for two reasons: (1) the size of the sample for each school is different, with a range of four to thirty-five first year students and a range of four to sixteen second year students, and (2) the researcher indicated to the teachers and their superintendents that such a comparison would not be made.

Each master listing (first and second year) was divided into two categories, (1) those students previously enrolled in the project method and (2) those students not previously enrolled in the project method of instruction. Data included in each category were: (1) pre-test score, (2) post-test score, (3) grade point average, (4) I. Q. score, and (5) difference score between the pre- and post-tests.

In order to deal with only positive numbers in the statistical procedures the largest negative difference score, which was 27, was added as a constant to each student's test score.

Data for each of the three hypotheses were divided into two groups, (1) those students previously enrolled in the project method and (2) those students not previously enrolled in the project method. The supportive data relating to the influence of socioeconomic status on the students' rates of achievement were grouped according to the socioeconomic status rank of the family (upper or lower) and whether the student was previously or not previously enrolled in the project method of instruction. The upper and lower socioeconomic status ranks were divided at approximately the fiftieth percentile as described by Runyan and Haber.²¹ The individual status ranks for the family of each participating student were derived from the NORC scale.

Data pertaining to the relationship between mean I. Q. scores and the year enrolled in the program were grouped by the year that the student was enrolled in the cooperative method and whether the student was previously or not previously enrolled in the project method of instruction.

Data pertaining to the relationship between socioeconomic status and mean grade point scores and whether or not the student was

previously enrolled in the project method were grouped into upper and lower socioeconomic status levels and each level was divided into the two groups of students previously and not previously enrolled in the project method of instruction.

Summary

It has been the purpose of this chapter to present the methodology and procedures utilized in this research study. The instruments used and their development were also explained. The basis for determining socioeconomic status was outlined and the procedure followed in gathering data was included. The statistical procedures employed were also discussed. Chapter IV will include a presentation and analysis of the data gathered. Chapter V will include a summarization of the data, conclusions from the data, and recommendations.

FOOTNOTES

¹The author-published tests were utilized by the researcher with the permission of the publishing companies. Any replication of the study using the same instruments will require similar approval.

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⁴G. Henry Richert, Warren G. Meyer, and Peter G. Haines, Retailing Principles and Practices (5th ed., New York, 1968).

⁵C. H. Sandage and Vernon Fryburger, Advertising Theory and Practice (7th ed., Homewood, Illinois, 1967).

⁶Herbert A. Tonne, Sidney I. Simon, and Esby C. McGill, Business Principles, Organization and Management (2nd ed., New York, 1963).

⁷Bernard A. Shilt and W. Harmon Wilson, Business Principles and Management (4th ed., Cincinnati, 1964).

⁸John W. Wingate and Carroll A. Nolan, Fundamentals of Selling (8th ed., Cincinnati, 1964).

⁹Stanley Ahmann and Marvin D. Glock, Evaluating Pupil Growth, (2nd ed., Boston, 1966), p. 191.

¹⁰Ibid., p. 192.

¹¹Ibid., pp. 192-193.

¹²The panel of jurors included: Mr. M. J. DeBenning, Oklahoma State Supervisor of Distributive Education; Mr. Ted Best, Assistant Oklahoma State Supervisor of Distributive Education and State DECA Advisor; and Mr. Lee Ward, Training Specialist with the Oklahoma AMIDS Agency. Mr. Ward was a former high school D. E. Teacher-Coordinator.

¹³Robert D. Mason, Statistical Techniques in Business and Economics (Homewood, Illinois, 1967), pp. 495-496.

¹⁴Robert Claud Wiley, "An Investigation of the Relationship Between Elementary School Socioeconomic Status and Teacher Professionalism," (Unpublished doctoral dissertation, Oklahoma State University, 1969), p. 58.

¹⁵ Albert J. Reiss, Jr., Occupations and Social Status (New York, 1961), pp. 59-101.

¹⁶ Wiley, p. 58.

¹⁷ Otis Dunley Duncan, in Albert J. Reiss, Jr., Occupations and Social Status (New York, 1961), pp. 109-161.

¹⁸ Wiley, p. 39.

¹⁹ W. James Popham, Educational Statistics, Use and Interpretation, (New York, 1967), pp. 164-186.

²⁰ Ibid., pp. 189-218.

²¹ Richard P. Runyon and Audrey Harper, Fundamentals of Behavioral Statistics (Reading, Massachusetts, 1967), pp. 42-48.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The purpose of this chapter is to present and analyze the data that were collected from participants in the study. The primary objective of the study was to determine whether the project method of instruction is accomplishing its task of training young men and women to enter the world of work without the benefit of first hand experience in an on-the-job training situation such as the cooperative method approach. An exhaustive and a comprehensive answer to the question implied by the objective of the study was not available, so three subject content areas of study were decided upon to be used in testing students that were previously and those that were not previously enrolled in the project method of instruction. The data collected from the students involved in the study will serve as a basis to determine if there is a difference in the rate of achievement between those students previously enrolled in the project method of instruction.

The three hypotheses presented in Chapter I were tested in the order listed. The analyses will be presented first in regard to the data analyzed by using the one way analysis of variance statistical technique and second in regard to the supportive data analyzed by using the multiple analysis of variance statistical technique.

Description of Student Achievement

Student achievement was determined by administering the three subject content area test instruments on a pre- and post-test basis. The student achievement scores are presented in the form of differences between the pre- and post-test on each instrument administered to the students. In order that only positive differences might be considered the largest negative difference was added as a positive constant to the difference score for each student on all three test instruments. The largest negative difference score on the three test instruments was 27, therefore, the constant of 27 was added to each student's difference score. The ratio of difference scores was, of course, not modified by this addition.

Statistical analysis of the data was achieved by using both the one way analysis of variance and the multiple analysis of variance statistical techniques. The one way analysis of variance was used to analyze the achievement difference scores on each of the three test instruments, with the only consideration being whether the student was previously or was not previously enrolled in the project method of instruction. The multiple analysis of variance was used to analyze the achievement difference scores on each of the three test instruments with two considerations: (1) whether the student was in the upper or lower socioeconomic level and (2) whether the student had previously or not previously been enrolled in the project method. Too, multiple analysis of variance was utilized to analyze the students' I. Q. and Grade Point Average scores. The primary reason for including student I. Q.'s and grade point averages was to determine if these variables

had any effect upon the rate of achievement of the students involved. The .05 level of significance was arbitrarily set as the level for rejecting the hypotheses.

Analysis of Data Relating to the Hypotheses

Hypothesis 1: There will be no significant difference in student achievement on the test Retail Selling between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

The mean score differences for those students previously enrolled in the project method and those students not previously enrolled in the project method and total sample mean score differences are presented in Table II.

The one way analysis of variance as described by Popham¹ was used to statistically analyze the data. The mean score difference between the pre- and post-test for those students previously enrolled in the project method of instruction was 29.22 with a high of sixty-three and a low of two. The mean score difference between the pre- and post-test for those students not previously enrolled in the project method of instruction was 31.41 with a high of sixty-six and a low of seven. The mean difference score of the total sample of students previously and not previously enrolled in the project method of instruction was 30.32. The one way analysis of variance on the test Retail Selling yield an F value of 1.5356 which was less than the 3.91 table value² required for rejection of the hypothesis at the .05 level of significance. Therefore, hypothesis one cannot be rejected.

TABLE II

MEAN SCORE DIFFERENCES ON THE TESTS RETAIL SELLING,
ADVERTISING AND SALES PROMOTION, AND PRINCIPLES
AND ORGANIZATION OF MANAGEMENT

	(a) Retail Selling	(b) Advertising and Sales Promotion	(c) Principles and Organization of Management
Previously in Project	29.22 Range: 63-2	36.53 Range: 71-10	35.98 Range: 63-9
Not Previously in Project	31.41 Range: 66-7	34.92 Range: 60-0	35.43 Range: 57-18
Mean of Total Sample	30.32	35.73	35.70

(a) - N = 172*

(b) - N = 172*

(c) - N = 92**

*The 172 participants that were administered the Retail Selling Test were also administered the Advertising and Sales Promotion Test.

**The 92 participants that were administered only the Principles and Organization of Management Test.

One way analysis of variance results on the test Retail Selling for students previously enrolled in the project method and those students not previously enrolled in the project method of instruction are presented in Table III.

TABLE III
ANALYSIS OF VARIANCE OF DIFFERENCE SCORES
ON THE RETAIL SELLING TEST

SOURCE	df	S.S.	M.S.	F
Between Groups	1	206.8402	206.8402	1.5356
Within Groups	170	22897.4389	134.6908	
Total	171	23104.2791		

Not significant; 3.91 required for rejection at the .05 level

Hypothesis 2: There will be no significant difference in student achievement on the test Advertising and Sales Promotion between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

The one way analysis of variance was used to analyze the data on the test Advertising and Sales Promotion. The mean score difference between the pre- and post-test scores for those students previously enrolled in the project method was 36.53 with a high of 71 and a low of 10. The mean score difference for those not previously enrolled in the project method was 34.92 with a high of 60 and a low of 0. As mentioned previously the difference scores are all positive numbers, with the largest negative score having been added to each difference

score. The mean difference score of the total sample of students previously and not previously enrolled in the project method of instruction was 35.73.

Students previously enrolled in the project method showed a mean score difference approximately one and one-half points higher than students not previously enrolled in the project method of instruction. The one way analysis of variance on the test Advertising and Sales Promotion yielded an F value of .7080 which was not significant as the value required for rejection at the .05 level of significance was 3.91. Thus, hypothesis two cannot be rejected.

One way analysis of variance results on the test Advertising and Sales Promotion for students previously enrolled in the project method and those students not previously enrolled in the project method of instruction are presented in Table IV.

TABLE IV
ANALYSIS OF VARIANCE OF DIFFERENCE SCORES ON THE
ADVERTISING AND SALES PROMOTION TEST

SOURCE	df	S.S.	M.S.	F
Between Groups	1	111.5959	111.5959	.7080
Within Groups	170	26792.1018	157.6005	
Total	171	26903.6977		

Not significant; 3.91 required for rejection at the .05 level

Hypothesis 3: There will be no significant difference in student achievement on the test Principles and Organization of Management

between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

The one way analysis of variance statistical technique was used to analyze the data relating to the above hypothesis. The mean score difference between the pre- and post-test scores for those students previously enrolled in the project method was 35.98 with a high of sixty-three and a low of nine. The mean score difference for those not previously enrolled in the project method was 35.43 with a high of 57 and a low of 18. The mean difference score of the total sample of students previously and not previously enrolled in the project method of instruction was 35.70. A difference of only .55 exists in the mean difference scores of the two groups, with those students previously enrolled in the project method scoring higher. The one way analysis of variance on the test Principles and Organization of Management yielded an F value of .055 which was not significant, as the value required for rejection at the .05 level of significance was 3.96. Hypothesis three cannot be rejected.

One way analysis of variance results on the test Principles and Organization of Management for students previously enrolled in the project method and those students not previously enrolled in the project method of instruction are presented in Table V.

Influence of Socioeconomic Status on Achievement

In order that an analysis might be made as to whether the socioeconomic status level of each participating student's family influenced the student's rate of achievement, the two groups of students previously

TABLE V
ANALYSIS OF VARIANCE OF DIFFERENCE SCORES ON THE
PRINCIPLES AND ORGANIZATION OF MANAGEMENT TEST

SOURCE	df	S.S.	M.S.	F
Between Groups	1	7.01	7.01	.055
Within Groups	90	11468.47	127.43	
Total	91	11475.48		

Not significant; 3.96 required for rejection at the .05 level

and not previously enrolled in the project method were divided into upper and lower socio-economic status (SES)³ groups. Hypotheses were not derived for the data relating to the influence of SES on the students' rate of achievement. These data fit into a supportive role for the three hypotheses stated previously. The multiple analysis of variance statistical technique was used to examine the influence of SES on the students' rate of achievement regarding each of the three hypotheses stated earlier.

The mean score differences on the tests Retail Selling, Advertising and Sales Promotion, and Principles and Organization of Management in relation to the influence of SES on achievement are presented in Table VI.

The mean score difference between the pre- and post-tests on the test Retail Selling for those students previously enrolled in the project method and in the upper SES group was 29.7441 while the lower SES group mean difference score was 28.0909. The mean score difference for those students not previously enrolled in the project method and in

TABLE VI

MEAN SCORE DIFFERENCES ON THE TESTS RETAIL SELLING, ADVERTISING AND
SALES PROMOTION, AND PRINCIPLES AND ORGANIZATION OF MANAGEMENT
IN RELATION TO THE INFLUENCE OF SES ON ACHIEVEMENT

	Retail Selling		Advertising and Sales Promotion		Principles and Organization and Management	
	Upper SES	Lower SES	Upper SES	Lower SES	Upper SES	Lower SES
Previously in Project	29.7441	28.0909	35.7441	37.2954	38.1739	33.9090
Not Previously in Project	29.2820	30.8260	34.5384	35.2391	36.2400	34.5000

the upper SES group was 29.2820 with the lower group scoring 30.8260. The upper SES level group previously enrolled in the project method scored higher than the lower group previously enrolled while the lower SES group not previously enrolled in the project method scored higher than the upper group not previously enrolled in the project method.

However, none of the differences in mean scores proved to be significant as the F value relating to the method of instruction (previously enrolled in the project method or not previously enrolled in the project method) was 1.5274 which was less than the 3.91 table value required for rejection at the .05 level of significance. The F value relating to the SES level (upper versus lower) was .9224 which was not significant. The F value yielded for interaction among groups was .1672 and was also less than the 3.91 value required for rejection. Therefore, the data support the idea that SES has no significant influence on achievement on the test Retail Selling.

Multiple analysis of variance results on the test Retail Selling for those students previously and not previously enrolled in the project method with each group divided into upper and lower socioeconomic status levels are presented in Table VII.

The mean score difference between the pre- and post-tests on the test Advertising and Sales Promotion for those students previously enrolled in the project method and in the upper SES group was 35.7441 while the lower group that had previously been enrolled in the project method had a mean difference of 37.2954. The mean score for those students not previously enrolled in the project method and in the upper SES group was 34.5384 while the lower group had a mean difference score of 35.2391. The lower SES level students scored higher on the average

TABLE VII

ANALYSIS OF VARIANCE OF DIFFERENCE SCORES
ON THE RETAIL SELLING TEST WITH RELATION
TO THE INFLUENCE OF SES ON ACHIEVEMENT

SOURCE	df	S.S.	M.S.	F.
Method**	1	206.8402	206.8402	1.5274*
SES	1	124.9121	124.9121	.9224*
Interaction	1	22.6453	22.6453	.1672*
Within	168	22749.8815	135.4159	
Total	171	23104.2791		

*Not significant; 3.91 required for rejection at the .05 level

**Those students previously or not previously enrolled in the project method of instruction

in both groups than did the upper SES level students. None of the differences, however, were significant. The F value relating to the method of instruction was .7014; the F value for SES level was .3019; and the F value yielded for interaction among the groups was .0831. All three F values were less than 1.0, which automatically indicated that they were not significant. The table value necessary for rejection at the .05 level of significance was 3.91. Therefore, the data support the idea that SES has no significant influence on achievement on the test Advertising and Sales Promotion.

Multiple analysis of variance results on the test Advertising and Sales Promotion for those students previously and not previously enrolled in the project method with each group divided into upper and lower socioeconomic status levels are presented in Table VIII.

TABLE VIII

ANALYSIS OF VARIANCE OF DIFFERENCE SCORES ON THE ADVERTISING
AND SALES PROMOTION TEST IN RELATION TO THE
INFLUENCE OF SES ON ACHIEVEMENT

SOURCE	df	S.S.	M.S.	F
Method**	1	111.5959	111.5959	.7014*
SES	1	49.4656	49.4656	.3109*
Interaction	1	13.2290	13.2290	.0831*
Within	168	26729.4072		
Total	171	26903.6977		

*Not significant; 3.91 required for rejection at the .05 level

**Those students previously or not previously enrolled in the project method of instruction.

The mean score difference between the pre- and post-tests on the Principles and Organization of Management for students previously enrolled in the project method and in the upper SES group was 38.1739 and the lower SES group mean difference score was 33.9090. The mean score difference for those students not previously enrolled in the project method and in the upper SES group was 36.2400 while the lower group had a mean score of 34.5000. The upper SES groups had higher mean difference scores than the lower SES groups in both the previously enrolled in project method group and the not previously enrolled in project method group. The differences were not significant as the F value yielded for method of instruction was .0550; the F value for socioeconomic status was 1.7054; and the F value for the interaction among groups was .3545. All three F values were less than the 3.96

table value required for rejection at the .05 level of significance. Thus, the data support the idea that SES has no significant influence on achievement on the test Principles and Organization of Management.

Multiple analysis of variance results on the test Principles and Organization of Management for those students previously and not previously enrolled in the project method with each group divided into upper and lower socioeconomic status levels are presented in Table IX.

TABLE IX

ANALYSIS OF VARIANCE OF DIFFERENCE SCORES ON THE PRINCIPLES
AND ORGANIZATION OF MANAGEMENT TEST IN RELATION TO
THE INFLUENCE OF SES ON ACHIEVEMENT

SOURCE	df	S.S.	M.S.	F
Method**	1	7.0111	7.0111	.0550*
SES	1	217.1752	217.1752	1.7054*
Interaction	1	45.1548	45.1548	.3545*
Within	88	11206.1372	127.3424	
Total	91	11475.4783		

*Not significant; 3.96 required for rejection at the .05 level

**Those students previously and not previously enrolled in the project method of instruction

Findings Regarding I. Q. and Year of Enrollment Results

I. Q. scores of the students participating in the research study were used primarily to test for homogeneity of groups. In addition, the I. Q. means were tested to determine whether there was a relationship between I. Q. and the year enrolled in the program.

The I. Q. means for the first and second year cooperative method students in relation to the previous enrollment in the project method are presented in Table X.

TABLE X

I. Q. MEANS FOR FIRST AND SECOND YEAR COOPERATIVE METHOD STUDENTS IN RELATION TO THE PREVIOUS OR NON-PREVIOUS ENROLLMENT IN THE PROJECT METHOD

<u>SOURCE</u>	<u>First Year Cooperative Method</u>	<u>Second Year Cooperative Method</u>
Previously in Project	100.8505	98.7333
Not Previously in Project	102.7058	103.2553

The mean I. Q. score for first year cooperative students previously enrolled in the project method was 100.8505 with a high of 129 and a low of 68. The mean I. Q. for the first year students not previously enrolled in the project method was 102.7058 with a high of 129 and a low of 71. Mean I. Q. scores for second year cooperative students previously enrolled in the project method was 98.7333 with a high of 127 and a low of 76. Second year cooperative students not previously enrolled in the project method had a mean I. Q. of 103.2553 with a high of 130 and a low of 67.

Both the first and second year cooperative students not previously enrolled in the project method had a higher mean I. Q. than those students previously enrolled in the project method. The second year students not previously enrolled in the project method had a higher I. Q. than their first year counterparts. However, the first year

cooperative students previously enrolled in the project method had a higher mean I. Q. than the second year cooperative students previously enrolled in the project method.

The differences were not great enough, however, to achieve significance. The F value yielded for method of instruction was 3.6215, which approached significance; however, it was less than the 3.89 value required for rejection at the .05 level. The F values for year in the program and interaction were .2242 and .7899 respectively and were both non-significant, as they were less than 1.0. Thus, the data would support the notion that a relationship does not exist between I. Q. and the year enrolled in the program; the groups were homogeneous.

Multiple analysis of variance results of the I. Q. means for first and second year cooperative method students in relation to the students' previous or non-previous enrollment in the project method are presented in Table XI.

Findings Regarding Grade Point Average and SES

Student grade point averages were included as a variable to determine if a relationship existed between (1) SES of the students' family and the students' grade point average and (2) SES of the students' family and whether the student was previously or was not previously enrolled in the project method. Grade point average mean scores for first and second year cooperative method students previously and not previously enrolled in the project method, in relation to SES are presented in Table XII.

The mean grade point average for first year cooperative method students previously enrolled in the project method and in the upper

TABLE XI

ANALYSIS OF VARIANCE OF I. Q. MEANS FOR FIRST AND SECOND YEAR
COOPERATIVE METHOD STUDENTS IN RELATION TO THE
STUDENTS' PREVIOUS OR NON-PREVIOUS
ENROLLMENT IN THE PROJECT METHOD

SOURCE	df	S.S.	M.S.	F
Method**	1	507.41	507.41	3.6215*
Year	1	31.41	31.41	.2242*
Interaction	1	111.67	111.67	.7899*
Within	260	36429.45	140.11	
Total	263	37078.94		

*Not significant; 3.89 required for rejection at the .05 level
**Those students previously and not previously enrolled in the
project method of instruction

TABLE XII

GRADE POINT AVERAGE MEAN SCORES FOR FIRST AND SECOND
YEAR COOPERATIVE METHOD STUDENTS PREVIOUSLY
AND NOT PREVIOUSLY ENROLLED IN THE PROJECT
METHOD IN RELATION TO SES

	<u>Upper SES</u>		<u>Lower SES</u>	
	1st Year	2nd Year	1st Year	2nd Year
Previously in Project	2.1786	2.2917	2.0118	2.1790
Not Previously in Project	2.3520	2.3464	2.2313	2.6077

SES level was 2.1786 with a high of 3.90 and a low of 0.70. The lower SES group mean was 2.0118 with a high of 3.50 and a low of 1.00. The mean grade point average for those students not previously enrolled in the project method and in the upper SES group was 2.3520 with a high of 3.50 and a low of 1.10. The lower group had a mean of 2.2313 with a high of 3.63 and a low of 0.80. The upper SES groups had higher mean grade point averages than the lower groups in both the previously enrolled in project method group and the not previously enrolled in project method group. The differences were not significant as the F value yielded for teaching method was 3.3996; this only approached the table value of 3.91 required for rejection at the .05 level of significance. The F value for socioeconomic status was 1.7216 and the F value for interaction among groups was .2265. These two values were less than the 3.91 value required for rejection. Thus, the data would support the notion that (1) no relationship exists between SES of the student's family and the student's grade point average and (2) no relationship exists between SES of the student's family and whether the student was previously or not previously enrolled in the project method, for the first and second year cooperative students.

Multiple analysis of variance results of grade point averages for first year students previously and not previously enrolled in the project method in relation to SES are presented in Table XIII.

The mean grade point average for second year cooperative method students previously enrolled in the project method and in the upper SES level was 2.2917 with a high of 4.00 and a low of 0.59. The lower SES group mean was 2.1790 with a high of 3.20 and a low of 1.20. The mean grade point for those students not previously enrolled in the project

TABLE XIII

ANALYSIS OF VARIANCE OF GRADE POINT AVERAGES FOR FIRST
YEAR COOPERATIVE METHOD STUDENTS PREVIOUSLY AND
NOT PREVIOUSLY ENROLLED IN THE PROJECT
METHOD IN RELATION TO SES

SOURCE	df	S.S.	M.S.	F
Method**	1	1.5924	1.5924	3.3996*
SES	1	.8064	.8064	1.7216*
Interaction	1	78.7044	.1061	.2265*
Within	168	81.2093	.4684	
Total	171			

*Not significant; 3.91 required for rejection at the .05 level

**Those students previously and not previously enrolled in the project method of instruction

method and in the upper SES level was 2.3464 with a high of 3.40 and a low of 0.90. The lower SES group was 2.6077 with a high of 4.00 and a low of 1.60.

The upper SES group previously enrolled in the project method had a higher mean grade point average than the lower SES group, while the lower SES group not previously enrolled in the project method had a higher mean grade point average than did the upper SES group.

None of the differences were great enough to be significant, though. The F value yielded for teaching method was 2.5640; the F value for socioeconomic status was .2547; and the F value for interaction among groups was 1.6959. Each of the three F values were less than the 3.96 value required for rejection at the .05 level of significance. The data support the notion that (1) no relationship exists between SES of

the student's family and the student's grade point average and (2) no relationship exists between SES of the student's family and whether the student was previously or not previously enrolled in the project method, for second year cooperative method students.

Multiple analysis of variance results of grade point averages for second year students previously and not previously enrolled in the project method in relation to SES are presented in Table XIV,

TABLE XIV

ANALYSIS OF VARIANCE OF GRADE POINT AVERAGES FOR SECOND
YEAR COOPERATIVE METHOD STUDENTS PREVIOUSLY AND
NOT PREVIOUSLY ENROLLED IN THE PROJECT
METHOD IN RELATION TO SES

SOURCE	df	S.S.	M.S.	F
Method**	1	1.2379	1.2379	2.5640*
SES	1	.1230	.1230	.2547*
Interaction	1	.8188	.8188	1.6959*
Within	88	42.4938	.4828	
Total	91	44.6735		

*Not significant; 3.96 required for rejection at the .05 level

**Those students previously and not previously enrolled in the project method of instruction

FOOTNOTES

¹W. James Popham, Educational Statistics (New York, 1967), pp. 164-177.

²Popham, 'Table G,' The Five and One Per Cent Points for the Distribution of F, pp. 399-402.

³Socioeconomic Status (SES). Hereafter socioeconomic status will be referred to as SES.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary objective of the study was to determine whether the project method of instruction is accomplishing its task of training young men and women to enter the world of work without the benefit of first hand experience in an on-the-job training situation such as the cooperative method approach. An exhaustive and a comprehensive answer to the question implied by the objective of the study was not available, so three subject content areas of study were decided upon to be used in testing students that were previously and those that were not previously enrolled in the project method of instruction. Differences in their rate of achievement were determined and analyzed.

Students involved in the study were enrolled in either the first or second year cooperative method of instruction and each of these two groups were divided into those students previously enrolled in the project method and those students not previously enrolled in the project method of instruction. First year students were administered two content area tests on (1) Advertising and Sales Promotion and (2) Retail Selling. The second year students were administered the test Principles and Organization of Management. The tests were administered to each of the groups on a pre- and post-test basis.

The following three hypotheses were posed concerning the data collected.

Hypothesis 1: There will be no significant difference in student achievement on the test Retail Selling between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

Hypothesis 2: There will be no significant difference in student achievement on the test Advertising and Sales Promotion between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

Hypothesis 3: There will be no significant difference in student achievement on the test Principles and Organization of Management between those students previously enrolled in the project method of instruction and those students not previously enrolled in the project method of instruction.

The primary data for each of the hypotheses were based on whether the student had previously or had not previously been enrolled in the project method of instruction. Supplementary data for the three hypotheses were analyzed in relation to the influence of SES on the students' achievement.

The variables I. Q. and Grade Point Average were included in the study also. I. Q. means were used primarily to determine the homogeneity of groups. In addition, the I. Q. means were tested to determine whether there was a relationship between I. Q. and the year enrolled in the program. Grade point means were included to determine if a relationship existed between (1) SES of the students' families

and the students' grade point averages, and (2) SES of the students' families and whether the students were previously or were not previously enrolled in the project method of instruction. Specific hypotheses were NOT posed relating to these variables; instead, the data were used to either support or fail to support the original three hypotheses. In each case, the data supported the hypotheses as written.

Summary of Findings Regarding the Three Hypotheses

A brief analysis of the data relating to the three hypotheses reveals that students not previously enrolled in the project method had a mean difference score slightly over two points higher than those students previously enrolled in the project method of instruction on the test Retail Selling. However, this difference was far from a significant one, as the F value of 1.5356 was less than the table value of 3.91 required for rejection at the .05 level of significance.

Students previously enrolled in the project method had a mean difference score approximately one and one-half points higher than those students not previously enrolled in the project method on the test Advertising and Sales Promotion. This difference was not significant as the F value of .7080 was less than the table value of 3.91 required for rejection at the .05 level of significance.

The students previously enrolled in the project method had a mean difference score .53 higher than those students not previously enrolled in the project method of instruction on the test Principles and Organization of Management. This difference was not significant as the F value of .055 was less than the table value of 3.96 required for rejection at the .05 level of significance.

Summary of Finding Regarding the Influence
of SES on Achievement

An analysis of the data relating to the three hypotheses, with regard to the influence of SES on achievement, reveals that the upper SES level groups in the previously enrolled in project method group had a higher mean difference than the lower SES groups on the Retail Selling and Management tests. In contrast, the lower SES group had a higher mean difference than the upper SES group on the Advertising test. The lower SES level groups in the not previously enrolled in project method group had a higher mean difference than the upper SES group on the Retail Selling and Advertising test. In contrast, the upper SES group had a higher mean difference than the lower SES group on the Management test. However, none of the differences were great enough to be statistically significant.

Summary of Findings Regarding I. Q. Scores
and the Year Enrolled in the Program

An analysis of the I. Q. scores of the students participating in the study reveals that students in both the first and second year cooperative method that were not previously enrolled in the project method had higher mean I. Q. scores than students previously enrolled in the project method. However, these differences were not significantly different at the .05 level. The first year cooperative method students previously enrolled in the project method had mean I. Q. scores higher than the second year students previously enrolled in the project method. The second year cooperative students not previously enrolled

in the project method had higher mean I. Q. scores than the first year students; however, the differences were not significant.

Summary of Findings Regarding Grade Point

Averages in Relation to SES

Grade point averages were analyzed in relation to SES and previous or non-previous enrollment in the project method. Both the first and second year cooperative method students not previously enrolled in the project method had higher mean grade point averages in both the upper and lower SES levels than those previously enrolled in the project method. The first year students in the upper SES level groups had higher mean grade point averages than the lower SES level groups for both those previously and not previously enrolled in the project method. The second year upper SES level group previously enrolled in the project method had a higher mean grade point than the lower SES group. However, the lower SES group not previously enrolled in the project method had a higher mean grade point than the upper SES group. None of the differences were significant, however.

Conclusions

None of the three hypotheses tested could be rejected. One major conclusion that can be reached from the data analysis is that there is no significant difference in the rate of achievement on the three content tests between those students previously enrolled in the project method and those students not previously enrolled in the project method of instruction. Possibly the most important conclusion that can be reached concerning the study is that those students who were previously

enrolled in the project method of instruction definitely were not harmed by having experienced one year of project method training. It should be added, however, that the students were not helped, to a significant degree, by having been previously enrolled in the project method of instruction.

Other conclusions are:

1. Students not previously enrolled in the project method scored slightly higher, but not significantly higher, than those students previously enrolled in the project method of instruction on the test Retail Selling.
2. Students previously enrolled in the project method scored slightly higher, but not significantly higher, than those students not previously enrolled in the project method of instruction on the test Advertising and Sales Promotion.
3. Students previously enrolled in the project method scored slightly higher, but not significantly higher, than those students not previously enrolled in the project method of instruction on the test Principles and Organization of Management.
4. Students in the upper SES level groups previously enrolled in the project method scored slightly higher, but not significantly higher, than the lower SES groups on the Retail Selling and Principles and Organization of Management tests.
5. Students in the lower SES level previously enrolled in project method scored slightly higher, but not significantly higher, than the upper SES group on the Advertising and Sales Promotion test.
6. Students in the lower SES groups not previously enrolled in the project method scored slightly higher, but not significantly higher,

than the upper SES group on the Retail Selling and Advertising and Sales Promotion tests.

7. Students in the upper SES level group not previously enrolled in the project method scored higher, but not significantly higher, than the lower SES group on the Principles and Organization of Management test.

8. Students in both the first and second year cooperative method programs not previously enrolled in the project method had higher mean I. Q. scores, but not significantly higher, than those students previously enrolled in the project method of instruction.

9. Students in the first year cooperative method previously enrolled in the project method had higher I. Q. scores, but not significantly higher, than the second year students previously enrolled in the project method of instruction.

10. Students in the second year cooperative method not previously enrolled in the project method had higher mean I. Q. scores, but not significantly higher, than the first year students not previously enrolled in the project method of instruction.

11. Students in both the first and second year cooperative method programs not previously enrolled in the project method had higher mean grade point averages, but not significantly higher, in both the upper and lower SES levels than those students previously enrolled in the project method of instruction.

12. Students in the first year cooperative method program in the upper SES level groups had higher mean grade point averages, but not significantly higher, than the lower SES level groups for both those previously and not previously enrolled in the project method of instruction.

13. Students in the second year cooperative method program in the upper SES level group previously enrolled in the project method had a higher mean grade point, but not significantly higher, than the lower SES group previously enrolled in the project method.

14. Students in the second year cooperative method program in the lower SES group not previously enrolled in the project method had a higher mean grade point than the upper SES group not previously enrolled in the project method of instruction.

Recommendations

As stated previously, an exhaustive study of differences in all possible outcomes of the two methods of instruction was not available within the confines of a single study. Therefore, it is deemed necessary that further research be carried out in this area. Suggestions for further study are detailed below.

One possibility for further measuring the success of former project method students would be to divide the first year cooperative method students into two groups of those previously and those not previously enrolled in the project method. Then, the teacher-coordinator, the student, and the employer would rate the student employee in several categories when he is initially employed. The student would then be rated again at the end of a specific period of time. In addition, the students could be administered tests of the nature used in this study or standardized tests such as those used by Ferguson and Vivian.

A second possibility for research would be to use the occupational objective of the student when he entered the project method and again upon entering the cooperative method. Relationships that might be

checked would include: (1) where he is employed in relation to both his prior and present occupational objectives, (2) does he remain employed, (3) does his occupational objective have a relationship to either his father's or mother's occupation?

A third research possibility would be to combine the method of the present study with the variables and statistical techniques used by Ferguson in his comparison of project and cooperative method students. The objective would be to test the same type groups as did this researcher and control the variables I. Q., G. P. A., Age, Sex, and Prior Achievement of the student through usage of the Multiple Analysis of Covariance statistical technique.

It is definitely the recommendation that the project method of instruction be continued. The reason underlying this statement is that students achieve in many ways other than on subject content tests. The projects completed in the laboratory as well as the subject content material learned help the student to develop into a more capable and well-rounded employee.

Opinions and Conclusions of the Researcher

The writer spent the school years 1965-66 and 1966-67 as a distributive education teacher-coordinator in the Oklahoma City Public Schools at Northwest Classen High School. During the 1965-66 school year, Mr. M. J. DeBenning, Oklahoma Distributive Education State Supervisor, announced that the project method of distributive education would be implemented into high schools where the teacher-coordinator was willing to initiate the program. The combination of being a new teacher-coordinator and knowing very little if anything about the project

method caused this writer to be one of several not willing to initiate the project method of instruction. At this point, the writer did not feel that the project method was the answer to the problems that were facing distributive education. Since that time, the writer has read many articles and done much research on the project method of instruction. This writer feels that those students enrolled in the project method of instruction have a definite advantage over those students not enrolled in the project method when initially beginning as a student trainee, in a business firm, as a first year cooperative method student.

The writer feels that the project method of instruction is a much better tool than some distributive educators give it credit. If these individuals would try the project method of instruction, they would find that their cooperative method students (some of which would have come through their project method class) would, on the average, be better employees. The underlying reason for this statement comes from two primary sources. One is the D. E. teacher-coordinators who have previously taught the project method and the second is the writer's association with students who have previously been enrolled in the project method of instruction. Those students who were previously enrolled in the project method have matured with the experiences they have encountered in the project method class. This statement is one that has been echoed by teacher-coordinators who have previously taught the project method.

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APPENDIX A

DISTRIBUTIVE EDUCATION

STUDENT DATA SHEET

APPENDIX B

SAMPLE OF INFORMATION USED IN DETERMINING
FAMILY SOCIOECONOMIC STATUS

FAMILY SOCIOECONOMIC STATUS

<u>Occupation</u>	<u>Reason for Assignment</u>	<u>NORC Rank</u>
Secretary	Duncan - Clerical and kindred	44
Truck Driver	NORC	67
Laundry and dry-cleaning operatives	Duncan - Operatives and kindred workers	54
Filling Station Attendant	NORC	74

APPENDIX C

PROCEDURE INFORMATION SHEETS

PROCEDURE FOR ADMINISTERING INSTRUMENTS
AND COLLECTING OTHER PERTINENT DATA

First Week

1. Have students fill in data sheet in class. Please ask that all blanks be filled in completely. All Cooperative Students (DE II and III) are to complete one data sheet each.
(a) Be sure that the students understand the question concerning whether or not they were in Project D. E. class.
2. Administer (1) Retail Selling and (2) Advertising and Sales Promotion tests to DE II students. Use the appropriate answer sheets and be sure to use the ones with September 1969 at the top for this first time.
3. Administer the Business Management test to the DE III students. Use the appropriate answer sheets and be sure to use the ones with September 1969 at the top for this first time.
4. Be sure to save the test sheets as the same tests will be readministered the 8th, 9th or 10th week.
5. Sometime between now and the 9th week; please get each student's I. Q. score and the two (2) previous semester's grade point average. There is a sheet for DE II students and a separate sheet for DE III students.

Eighth, Ninth, or Tenth Week

1. Administer (1) Retail Selling and (2) Advertising and Sales Promotion tests to DE II students. Use the appropriate answer sheets and make sure they have November 1969 at the top for this second test.
2. Administer the Business Management test to the DE III students. Use the appropriate answer sheets and make sure they have November 1969 at the top for this second test.

- 3.* Put all answer sheets; student data sheets; and the DE II and DE III G. P. A. and I. Q. score sheets in the enclosed envelope addressed to: Jimmie Thrash, 4708 Del Porte, Oklahoma City; and mail third class, educational materials. When I receive the materials, I will return the money to you that you have spent on postage.

Thanks very much for your help.

*You may keep the actual tests or throw them away. Just send me the answer sheets.

Units to Cover

After you have administered the tests the first time, cover the following units and then retest the students.

DE II

Textbook - Retailing Principles and Practices, Richert, Meyer and Haines.

Retail Selling

1. Unit 8 if 4th edition is used
2. Unit 6 if 5th edition is used

Advertising and Sales Promotion

1. Unit 12 if 4th edition is used
2. Unit 9 if 5th edition is used

DE III

Textbook - Business Principles and Management, Shilt and Wilson

Chapters: 1, 2, 3, 4, 5, 6, 7, 11, and 12

APPENDIX D
DATA COLLECTION INSTRUMENTS

DISTRIBUTIVE EDUCATION II

ADVERTISING AND SALES PROMOTIONSection One: TRUE-FALSE

Directions: DO NOT WRITE ON THE TEST! USE THE ANSWER SHEET PROVIDED!
Each of the following statements is either true or false.
If the statement is true, place the capital letter "T" in the corresponding answer blank. If the statement is false, place the capital letter "F" in the corresponding answer blank.

1. In an advertising layout the main purpose of the body copy is to attract the attention of the reader.
2. Prestige advertising is the form of institutional advertising that informs the public on the many ways in which the store serves customers.
3. Advertising is more compelling than any personal contact on the part of a salesman.
4. The sales volume produced by vending machines in the United States amounts to less than one percent of all retail trade.
5. The decor of a window display should be from the seller's view-point.
6. Retail representatives of stores frequently address groups of women on such subjects as clothing, fashion, and interior decoration with no attempt to close sales at these meetings.
7. It is wise to rely only on impersonal announcements such as posters in urging people to come to a meeting to hear a speaker.
8. Deliverymen, cashiers, and credit personnel have no part in promoting sales and customer good will.
9. Sales promotion that co-ordinates the efforts of all in the store usually pays small dividends.
10. An advertising plan is not part of the stores total budgeting procedure.

Section Two: MULTIPLE-CHOICE

Directions: Each statement or question is followed by four phrases or statements, one of which correctly completes the statement or is the best answer to the question. Place the letter of the best choice in the corresponding answer blank.

11. Which of the following media takes most of the retail advertising dollar? (a) newspapers, (b) catalogues, (c) direct mail, (d) radio.
12. The most common practice among retailers is to spend money for advertising according to (a) the value of the inventory, (b) the amount needed to accomplish a purpose, (c) a percent of sales, (d) a fixed percent of the margin.

13. Which of the following statements best describes the cost of trading stamps to the merchant? (a) the cost varies with type of store and kind of goods sold, (b) stamps do not cost money because they result in an increase of sales, (c) at least a 50 percent increase in volume is needed to cover the clerical costs, (d) a sales increase of about 25 percent will cover the costs.
14. Which of the following sources of information would be of least value to the retailer who wanted to know what is selling? (a) sales-people and buyers of own firm, (b) salesman from wholesale and manufacturers, (c) last year's stock-control records, (d) trade associations.
15. Which of the following is not part of the "B-complex" recommended for writing advertisements that sell? (a) be simple, (b) be specific, (c) be sincere, (d) be practical.
16. The elements that make up the communications view of advertising are (a) sender, message, medium, receiver, and feedback, (b) paid form, nonpersonal presentation, ideas and services, and identified sponsor, (c) advertiser, paid message, nonpersonal medium, and consumer.
17. The successful producer gives customers (a) what the producer thinks they should have, (b) what the retailer thinks they should have, (c) what the producer knows they want.
18. In early periods of history, symbolic signs, such as the large boot of the shoe merchant, were used because (a) it was too expensive to have signs printed, (b) most people could not read, (c) the stores had no windows in which to display their goods.
19. Before the nineteenth century, advertising progressed (a) rapidly, (b) at a moderate rate, (c) very slowly.
20. The object of much of the advertising and sales promotion of mail-order houses is to (a) pave the way for the salesman, (b) produce immediate sales, (c) get customers to enter the store.
21. A leader is (a) an article advertised at a cut price to attract customers into the store, (b) the first page in a magazine, (c) the lowest priced item in a window display.
22. When a store does not mention any particular merchandise in its advertising, but aims to create goodwill on the part of the public, this type of advertising is known as (a) selective advertising, (b) industrial advertising, (c) institutional advertising.
23. The most successful sales promotion activities involve (a) effective nonpersonal selling methods, (b) effective personal selling techniques, (c) the coordination of nonpersonal selling methods with personal selling, (d) proper interior and exterior display.
24. Institutional advertising attempts to (a) educate customers about products or services that are new, (b) build goodwill for the future, (c) keep in the customer's mind a product in regard to which she has already been educated, (d) stress the immediate availability in a certain place of goods for which demand already exists.
25. The major advertising medium that most retail stores use is (a) radio, (b) television, (c) newspapers, (d) direct mail.
26. The real you attitude in written sales presentations is shown (a) by the use of special words, (b) by the frequent use of the prospect's name, (c) by the writer keeping his firm's interest constantly in mind, (d) by the writer keeping the reader's interest constantly in mind.

27. Enclosing in the sales letter a business reply envelope with no postage required is an example of (a) making it easy for the reader to act, (b) urging the reader to act, (c) offering the reader inducements to act, (d) offering a premium to act promptly.
28. Since selling by telephone is very competitive, the merchandise or service offered must be (a) high priced with medium quality, (b) low priced with low quality, (c) of good quality and fairly priced, (d) high priced with high quality.
29. "Good morning, Mrs. Jones. This is Mr. Pierce of Pierce Fine Foods. We haven't done any business with you for some time and I thought I'd call you and find out why." This attention-getter is classified as (a) inactive account approach, (b) thank-you approach, (c) special occasion approach, (d) service approach.
30. Inflection is a voice quality which means (a) certain words are emphasized more than others, (b) a change in pitch or tone, (c) words are spoken clearly and distinctly, (d) the pitch of the voice is held constant.
31. Sales promotion by radio and TV is considered successful only when (a) there is an increase in sales, (b) the margin of markup on the extra business exceeds the cost of the promotion, (c) fan mail is received that is complimentary, (d) new customers are acquired.
32. The design of the layout should direct the eye movements of the reader from: (a) left to right on the advertisement, (b) center of page to top and then back down to the bottom, (c) right center to left side of page, (d) top of the advertisement through the other elements.
33. The most important element of the advertisement should be placed at the (a) upper right hand side of the ad, (b) upper left hand side of the ad, (c) center of the page at the top, (d) optical center of the page.
34. Which of the following statements best describes the true meaning of the statement, "The Consumer is King"? (a) That consumers are always able to purchase what they most desire. (b) That human wants are so insatiable that producers need not fear over-production. (c) That producers who fail to provide want-satisfying commodities will have to advertise extensively. (d) That producers who most effectively satisfy consumers' needs will be the ones most richly rewarded.
35. The determination of consumer demand before goods are produced results in which of the following? (a) There is a greater need for high-pressure selling, (b) There is greater financial risk for the producer, (c) There is no need for advertising, (d) "Low-pressure buying" takes the place of "high-pressure selling."
36. By placing emphasis upon the consumer and his wants, the function of selling and advertising will be which of the following? (a) Interpreting the utility of the product in terms of customers' needs and wants, (b) Deciding whether advertising or personal selling is to be used to create sales volume, (c) Tempting the consumer to at least give the product a trial, (d) Forcing the consumer to change his wants and desires to conform to those of the producer.
37. An advertiser should employ which of the following to get customers to believe what his advertising says? (a) Talk prospect's language, (b) Orient message to prospect's experience, (c) Start with the truth, (d) All of the above.

DISTRIBUTIVE EDUCATION II

RETAIL SELLINGSection One: TRUE-FALSE

Directions: DO NOT WRITE ON THE TEST! USE THE ANSWER SHEET PROVIDED!
Each of the following statements is either true or false.
If the statement is true, place the capital letter "T" in the corresponding answer blank. If the statement is false, place the capital letter "F" in the corresponding answer blank.

1. One good reason for using the merchandise approach is that often the customer will tell you what kind of item he wants.
2. When faced with a customer who is making excuses for not buying, the salesperson should "brush off" the excuses by giving more selling points.
3. When a prospect raises objections, it indicates that there is no interest in the article.
4. To avoid overselling, the wholesale salesman should always advise the retailer to order less than he can use.
5. In the average supermarket the average customer buys about one half of his purchases on impulse.
6. Trading up involves the sale of additional merchandise.
7. Handling more than one customer at a time is adaptable to the sale of all kinds of merchandise.
8. It is possible for a customer to be decisive at one time, at another to be stubborn, suspicious, or even obstinate all during the same sale.
9. Friendship between the buyer and the seller does not enter into the securing of business either for the first time or for repeat business.
10. It would be a service to a customer who asks for goods not in stock to turn her away immediately rather than attempt to show her what is in stock.

Section Two: MULTIPLE-CHOICE

Directions: Each statement or question is followed by four phrases or statements, one of which correctly completes the statement or is the best answer to the question. Place the letter of the best choice in the corresponding answer blank.

11. Which technique should be avoided when trading up? (a) Point out similar features in both products. (b) Say that the lower-priced merchandise is "cheap" or of "poor quality." (c) Determine the customer's intended use before trying to trade up. (d) Point out the additional features of the more expensive product.

12. "COD" means (a) call or deliver, (b) credit on demand, (c) collect on delivery, (d) cash on demand.
13. A "charge-send" sale would affect all but which one of the following departments: (a) customer service, (b) credit, (c) accounting, (d) delivery.
14. A check should not be accepted if it is (a) written in indelible pencil, (b) dated yesterday; (c) endorsed with a name only, (d) endorsed "For Deposit Only".
15. Selling is the specialized business of assisting and persuading prospective customers to buy goods and services (a) at a profit for the seller only, (b) for the satisfaction of the buyer, (c) to the mutual satisfaction of both seller and buyer, (d) at the lowest possible price.
16. The main difference between personal and nonpersonal selling is (a) the former involves talking to a particular prospect, especially face to face, and the latter does not, (b) personal selling communicates a message to a group of people, (c) personal selling includes advertising, (d) nonpersonal selling is tailored to meet a special set of circumstances involving a specific prospect.
17. Spending that results in satisfying needs rather than wants is called (a) discretionary spending, (b) subsistence spending, (c) arbitrary spending, (d) budgetary spending.
18. All of the following motives are patronage motives except (a) quality, (b) exercise, (c) assortment, (d) friendship or bias.
19. The salesman should discuss the care of the product in his sales talk because (a) proper care will result in fewer returns, (b) if goods are ruined because they are not properly cared for, the customer seldom blames himself, (c) the customer probably will blame any defective operation on the quality of the merchandise and may refuse to buy from the seller in the future, (d) all of the above.
20. An appeal to the emotions is most easily made by (a) using facts and figures, (b) offering warranties, (c) presenting testimony, (d) picturing an article in use.
21. A real objection, and not an excuse, such as "I want to look around before I decide," is an example of an objection to (a) the goods, (b) the seller, (c) immediate action, (d) price.
22. An objection to the goods should be handled by (a) showing more suitable goods, (b) contradicting the customer, (c) generalizing that the goods are in current demand, (d) claiming that the objection is not valid.
23. Most successful salesmen do not talk about (a) performance, (b) quality, (c) efficiency, (d) price.
24. Generally, the time to handle an objection is (a) after the demonstration, (b) at the moment the objection is raised, (c) just before attempting to close the sale, (d) during the close.
25. In agreeing on the terms of retail sales, the salesman should (a) encourage customers to pay cash or to charge their purchases and themselves, (b) suggest that goods be sent C.O.D., (c) suggest that all goods be delivered by the company to prevent breakage and returns, (d) insist on cash for the purchases.

26. The securing of information about a customer prior to actual contact (a) is a waste of time, (b) hinders the salesman in making the close, (c) is never a waste of time, (d) is particularly important in tailoring the sales presentation to a most difficult customer.
27. A good rule for a salesman to follow is to (a) talk to all customers as if they are the same age, (b) adapt the sales talk to the age and other characteristics of each prospect, (c) talk to prospects as if they are younger than they really are, (d) treat men and women alike.
28. The customer type that tends to be confident, positive, and in most cases opinionated is the (a) decisive type, (b) impulsive type, (c) deliberate type, (d) stubborn type.
29. When the salesman knows it is difficult to make an appointment with a prospect, it is good practice to make the appointment (a) by a well-constructed letter, (b) by telephone, (c) by the invitation method, (d) by calling in person and asking for an appointment.
30. The type of greeting which most easily transfers the customer's attention from the salesman to the merchandise is called the (a) informal approach, (b) formal approach, (c) merchandise approach, (d) service approach; for example, "May I help you?"
31. One question a salesman may ask that would aid him in analyzing the customer's needs and will not block the sale is (a) "How much would you like to pay?" (b) "To what use will the product be put?" (c) "What size do you wear?" (d) "What color do you like?"

DISTRIBUTIVE EDUCATION III

BUSINESS PRINCIPLES AND MANAGEMENTSection One: YES-NO

Directions: DO NOT WRITE ON THE TEST! USE THE ANSWER SHEET PROVIDED!
 Each of the following questions can be answered "yes" or "no." If the answer to the question is "yes," place the answer "yes" in the corresponding answer blank. If the answer is "no," place the answer "no" in the corresponding answer blank.

1. Since laws have been passed to control the resale price of certain goods, can it be said that business is no longer competitive?
2. Is the amount of government regulation of business decreasing?
3. Can today's businesses be characterized as "dynamic"?
4. Is a bank classed as a service type of business?
5. Do businesses that honor credit cards usually pay the credit card company for the credit card service?
6. Did the Ford Motor Company begin business without Henry Ford investing cash?
7. Can job security be listed as an advantage of operating one's own business?
8. Are persons to whom a business owes money called debtors?
9. Must a corporation obtain permission from the federal government before it can operate as a business?
10. Is giving an employee a specialized type of work an example of delegation of authority?
11. Does a stock-control card show the balance on hand after each purchase and after each withdrawal of stock?
12. If you take a partner into your business, is his investment known as borrowed capital?
13. Do commercial credit companies lend money on accounts receivable?

Section Two: MULTIPLE-CHOICE

Directions: Each statement or question is followed by two or more phrases or statements, one of which correctly completes the statement or is the best answer to the question. Place the letter of the best choice in the corresponding answer blank.

14. The manufacture of a pair of shoes creates (a) form utility, (b) time utility, (c) place utility.
15. A person who rents an automobile from a car-rental business has what is known as (a) the right of possession, (b) the right of ownership, (c) the right of use, (d) both the right of possession and the right of use.
16. A very important characteristic of free enterprise is (a) competition, (b) fair-trade laws, (c) monopolistic practices.

17. People invest in businesses primarily because they wish (a) to make profits, (b) to have a safe place for their money, (c) to see the country become prosperous, (d) to be known as capitalists.
18. The percentage of families in this country that change their residence within a year is about (a) 5 percent, (b) 10 percent, (c) 20 percent, (d) 30 percent.
19. The part of the personal consumption income that is being spent for services is estimated to be about (a) 10 percent, (b) 20 percent, (c) 30 percent, (d) 40 percent.
20. The number of businesses in this country having more than 1,000 employees is approximately (a) 3,500; (b) 10,000; (c) 25,000; (d) 50,000.
21. Surveys of newly established small businesses indicate that within the first year the number that discontinue operations is approximately (a) 5 percent, (b) 10 percent, (c) 20 percent, (d) 33 1/3 percent.
22. Which of the following is not considered an advantage of operating one's own business? (a) social standing, (b) difficulty of retirement, (c) job security, (d) increased income.
23. A balance sheet of a business is a financial report showing (a) only the assets, (b) only the assets and the claims against the assets, (c) the assets, the claims against the assets, and the equity of the owner(s).
24. An advantage of the sole proprietorship is that (a) the owner is not hindered in making decisions, (b) the owner usually has some special ability, (c) this type of business usually finds it easy to obtain additional funds.
25. The written agreement to operate a partnership is known as the (a) certificate of incorporation, (b) balance sheet, (c) articles of copartnership.
26. A disadvantage of one's being a partner in a business is the (a) unlimited financial liability of a partner, (b) contribution of each partner's goodwill, (c) pooling of management ability.
27. The limited partnership type of business is confined mainly to (a) manufacturing businesses, (b) retail stores, (c) brokerage firms.
28. A memorandum written by the credit manager to the sales manager in the same business is known as (a) a credit line, (b) an interoffice communication, (c) an outgoing communication.
29. For filing correspondence pertaining to various schools that purchase textbooks, the textbook publisher that has a national market probably will use (a) an alphabetic file, (b) a numeric file, (c) a geographic file.
30. When planning the start of a new business, the easiest amount to estimate is (a) sales, (b) net profit, (c) fixed capital.
31. When a business replaces a piece of equipment because that equipment is out of date, it is said that the replacement was necessary because of (a) depreciation, (b) obsolescence, (c) depletion.
32. The investment made by stockholders is known as (a) short-term capital, (b) borrowed capital, (c) proprietary capital.
33. The value indicated on the stock certificate is known as the (a) book value, (b) par value, (c) market value.

APPENDIX E
PARTICIPATING STUDENT POPULATION

PARTICIPATING STUDENT POPULATION

	Retail Selling	Advertising	Management
Previously in Project	87	87	45
Not Previously in Project	85	85	47
Totals	172*	172*	92

*The 172 students were administered both the Retail Selling and Advertising instruments and represent a combined total of 172 students for both groups.

APPENDIX F

PARTICIPATING HIGH SCHOOLS
AND STUDENT SAMPLE SIZE

PARTICIPATING HIGH SCHOOLS
AND STUDENT SAMPLE SIZE

School	<u>First Year</u>		<u>Second Year</u>	
	Previously in Project	Not Previously in Project	Previously in Project	Not Previously in Project
A	11	10	4	6
B	2	2	4	4
C	8	4	9	-
D	8	3	8	7
E	1	10	3	10
F	19	16	2	3
G	5	3	3	3
H	12	10	-	-
I	2	4	5	1
J	5	7	5	11
K	14	16	2	2
Totals	87	85	45	47

APPENDIX G

SAMPLE LETTER OF CONFIRMATION TO DO RESEARCH
IN LOCAL HIGH SCHOOLS

July 22, 1969

Mr. _____, Superintendent
_____ Public Schools
_____, Oklahoma

Dear Mr. _____:

This letter is to confirm our telephone conversation of Monday, July 14, 1969 during which my request to conduct research in your local distributive education program was approved. The research will be conducted as described below.

The study involves only those schools in Oklahoma that offered the project method of instruction in distributive education during the past school years of 1967-68 and 1968-69. The students involved will be only DE students that are in the cooperative program during the 1969-70 school year. Two instruments will be administered to the DE II students and one instrument to the DE III students. The instruments will be given on a pre- and post-test basis. The pre-test and post-test will take only one hour each of the student's time. Only distributive education students will be involved and the test will be administered during their regular DE class period. Additional data desired will be grade point averages and IQ scores of the students. The information will be kept in the strictest of confidence and names will not appear in the study in any form.

Thank you very much for your cooperation in this research project.

Sincerely,

Jimmie Thrash, Research Assistant
Research Coordinating Unit

JT:ph

cc: High School Principal
DE Teacher-Coordinator

APPENDIX H
ITEM ANALYSIS DISCRIMINATION

ADVERTISING TEST ITEMS
(PILOT TEST)

*Discriminating Items Included
in Final Instrument

Question Number	D	Upper 27% Correct Responses	Lower 27% Correct Responses
* 1	.35	11	5
2	-.06	6	7
3	.18	14	11
4	.06	16	15
5	.00	16	16
6	.06	12	11
7	-.06	11	12
* 8	.35	13	7
9	.12	15	13
10	.06	9	8
11	.24	5	1
*12	.76	16	3
13	.18	10	7
14	.24	16	12
*15	.29	9	4
*16	.41	15	8
17	.00	14	14
18	.24	14	10
19	.24	16	12
20	.24	10	6
21	.00	15	15
22	.06	11	10
23	.06	8	7
24	.00	14	14
25	.24	12	8
26	.24	6	2
27	.24	14	10
28	.00	8	8
*29	.35	14	8
*30	.41	16	9
31	.18	5	2
*32	.29	16	11
*33	.41	16	9
34	.18	14	11
35	.18	16	13
36	.24	17	13
37	.18	11	8
38	.12	13	11

Question Number	D	Upper 27% Correct Responses	Lower 27% Correct Responses
*39	.35	15	9
40	.00	13	13
41	.06	14	13
42	-.06	13	14
43	-.06	13	14
44	.06	16	15
45	.00	12	12
*46	.35	16	10
47	.24	10	6
48	.12	9	7
*49	.59	13	3
50	.06	6	5
51	.12	7	5
*52	.47	11	3
53	.18	8	5
*54	.59	14	4
*55	.29	8	3
*56	.47	12	4
*57	.29	14	9
*58	.41	15	8
*59	.35	13	7
*60	.41	9	2
*61	.47	17	9
62	.18	8	5
*63	.71	15	3
64	.06	5	4
*65	.35	14	8
*66	.29	14	9
*67	.59	16	6
68	.06	8	7
69	.24	8	4
*70	.29	16	11
*71	.53	12	3
72	.00	5	5
*73	.29	16	11
*74	.53	13	4
*75	.41	9	2
76	.00	3	3
77	.18	8	4
78	.24	7	3
*79	.29	8	3
*80	.47	11	3
*81	.41	8	1
82	.06	5	4
83	.24	7	3
*84	.59	15	5
*85	.41	10	3
*86	.41	11	4
87	.06	6	5
*88	.59	15	5
89	.12	11	9
90	.06	4	3

RETAILING TEST ITEMS
(PILOT TEST)

*Discriminating Items Included
in Final Instrument

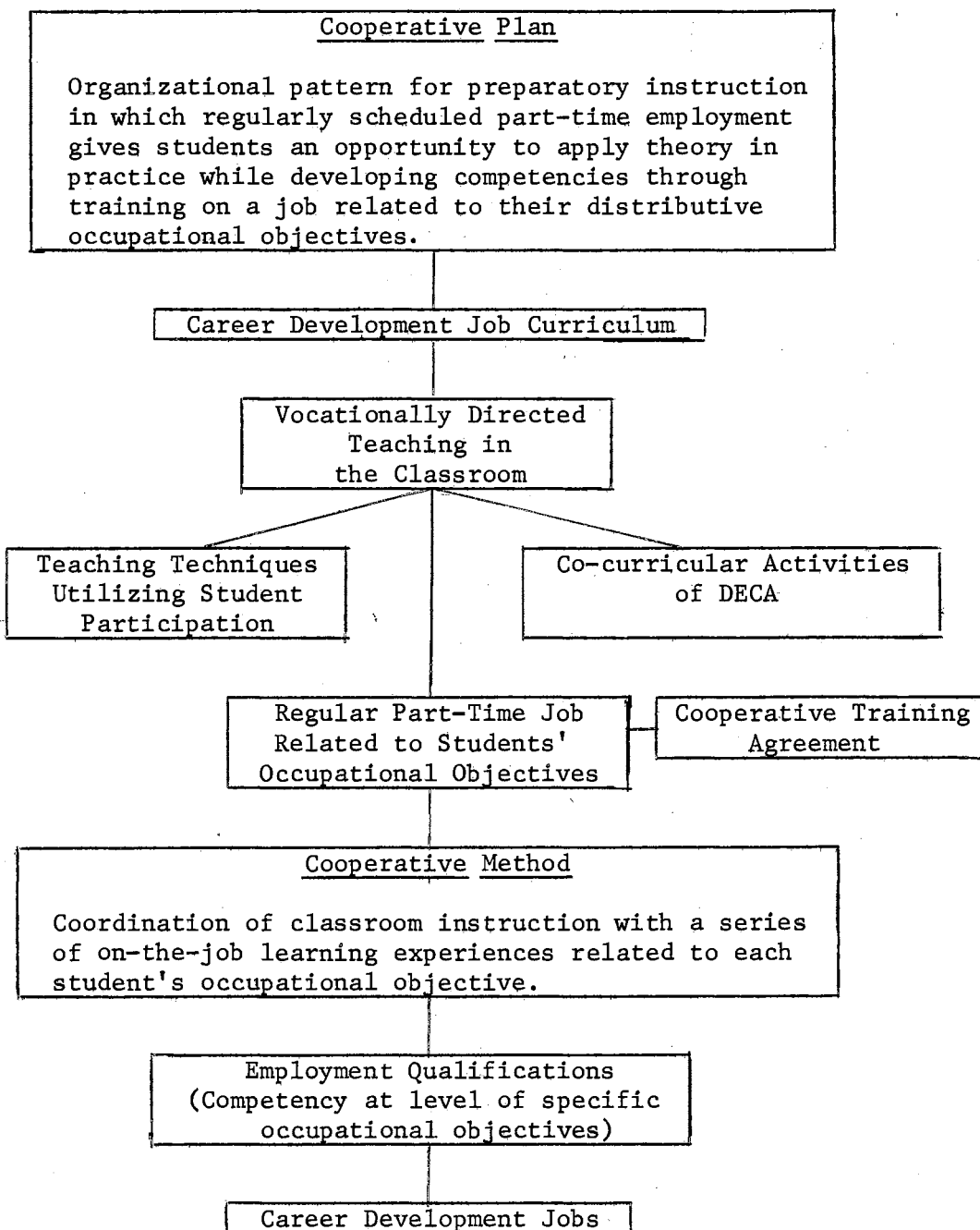
Question Number	D	Upper 27% Correct Responses	Lower 27% Correct Responses
* 1	.35	17	11
2	.24	15	11
3	.12	15	13
* 4	.29	9	4
5	.24	10	6
6	.06	9	8
7	.12	8	6
8	.00	10	10
9	.24	13	9
10	.06	11	10
11	.18	9	6
12	.12	13	11
13	-.18	3	6
14	.18	9	6
15	.18	5	2
16	.18	11	8
17	.00	3	3
18	.00	11	11
19	.00	14	14
*20	.47	17	9
21	.24	17	13
*22	.35	16	10
23	.18	8	5
24	-.29	9	13
25	.12	13	11
26	.00	11	11
*27	.35	17	11
*28	.29	11	6
29	.12	10	8
*30	.41	15	8
31	.00	16	16
32	.12	15	13
*33	.29	16	11
*34	.29	16	11
35	.24	17	13
36	.18	16	13
37	.18	16	13
38	.06	14	13

Correct Number	D	Upper 27% Correct Responses	Lower 27% Correct Responses
39	.00	16	16
*40	.29	17	12
41	-.12	12	14
42	.06	15	14
43	.18	15	12
44	.24	10	6
45	-.06	8	9
46	.12	3	1
47	-.06	2	3
48	.24	9	5
*49	.47	12	4
50	-.12	0	2
51	.18	5	2
52	.24	11	7
*53	.29	17	12
54	.00	13	13
*55	.35	11	5
*56	.41	12	5
57	-.35	2	8
58	.24	9	5
59	.18	14	11
*60	.35	15	9
*61	.47	13	5
62	.24	14	10
*63	.41	10	3
*64	.29	12	7
65	-.06	15	16
66	.18	5	2
67	.18	12	9
*68	.71	16	4
69	.06	6	5
70	.24	14	10
71	.24	15	11
*72	.41	11	4
73	.00	7	7
*74	.35	7	1
*75	.41	16	9
*76	.41	16	9
*77	.53	16	7
78	-.18	3	6
79	.28	6	3
*80	.41	16	9
*81	.59	13	3
*82	.59	15	6
*83	.29	10	5
*84	.53	11	2
85	.18	6	3
86	.18	15	12
*87	.53	13	4
88	.12	7	5
89	.24	15	11
*90	.41	15	8

APPENDIX I

VOCATIONAL DISTRIBUTIVE EDUCATION

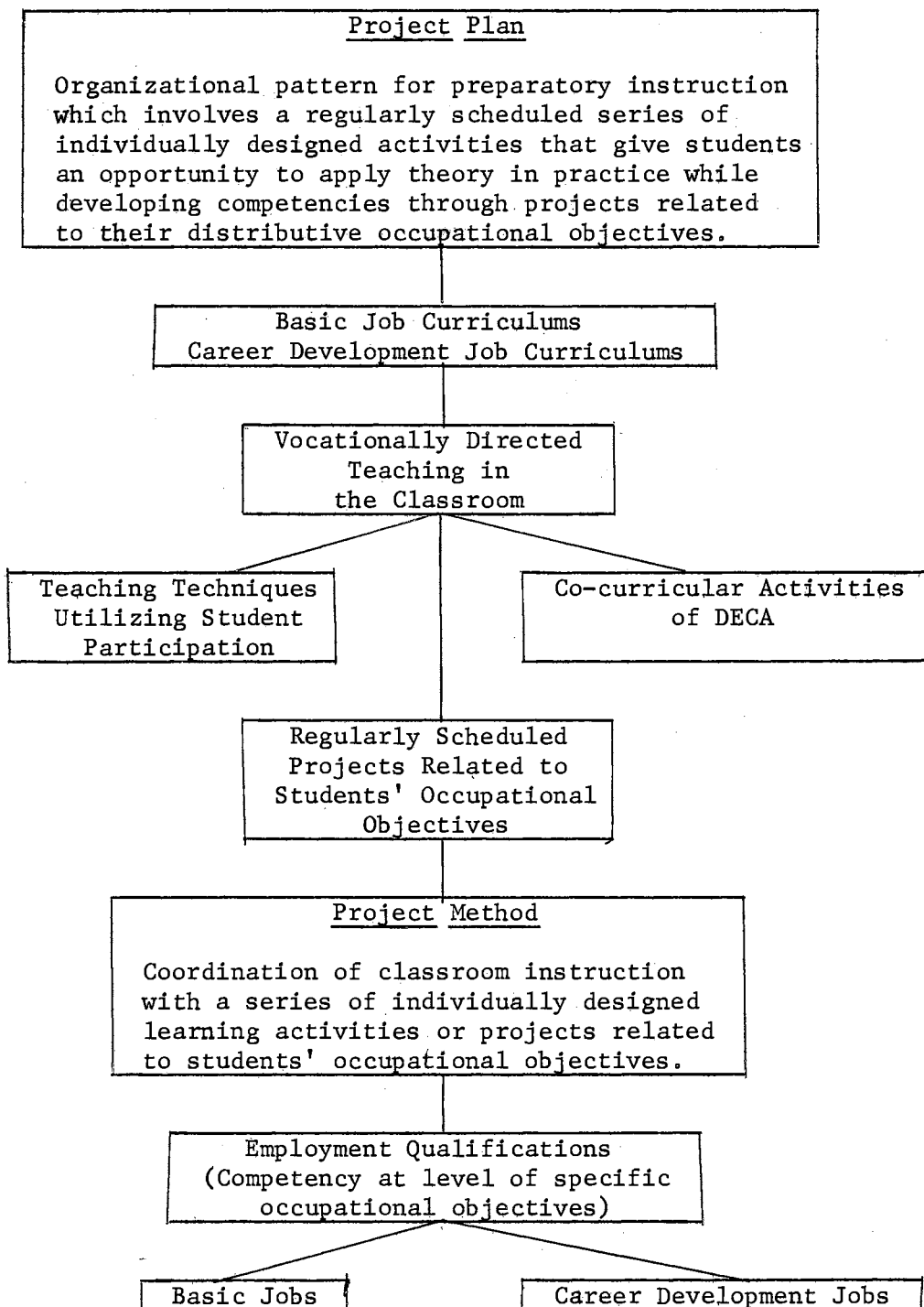
THE COOPERATIVE PLAN IN SECONDARY AND POST-HIGH SCHOOLS



APPENDIX J

VOCATIONAL DISTRIBUTIVE EDUCATION

THE PROJECT PLAN IN SECONDARY AND POST-HIGH SCHOOLS



VITA

2

Jimmie Ford Thrash

Candidate for the Degree of

Doctor of Education

Thesis: THE PROJECT METHOD IN DISTRIBUTIVE EDUCATION: STUDENT
ACHIEVEMENT IN SELECTED CONTENT AREAS

Major Field: Educational Administration

Biographical:

Personal Data: Born in Olustee, Oklahoma, June 14, 1941, the son
of Ford and Ruth Thrash.

Education: Attended grade school in Altus, Oklahoma; graduated
from Altus High School in 1959; received the Bachelor of
Science degree from Central State College, with a major in
Business Administration and Marketing, in May, 1964; received
the Master of Science degree from Oklahoma State University,
with a major in Distributive Education, in July, 1967; com-
pleted requirements for the Doctor of Education degree in
May, 1970.

Professional Experience: Employed as Distributive Education
Teacher-Coordinator in Oklahoma City Public Schools, Okla-
homa City, Oklahoma, from 1965 to 1967; employed as instructor
of Marketing at Central State College, Edmond, Oklahoma,
from 1967 to 1968; employed at Oklahoma State University
as a graduate research assistant for the Vocational Research
Coordinating Unit from 1968 to 1969; employed as Industrial
Coordinator and Adult Education Supervisor at the Oklahoma
City Area Vocational-Technical Center, Oklahoma City, Okla-
homa, from 1969 to 1970.

Professional Organizations: Oklahoma Education Association,
Oklahoma Vocational Association, American Vocational
Association, National Association of Distributive Education
Teachers, Delta Pi Epsilon, Phi Delta Kappa.