The Effectiveness of the Exploratory Distributive Education Course (DE 8) on Student Choice of Fundamentals of Distribution (DE 10) at Abingdon High School

Paula J. Hill
Old Dominion University

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THE EFFECTIVENESS OF THE EXPLORATORY DISTRIBUTIVE EDUCATION COURSE (DE 8) ON STUDENT CHOICE OF FUNDAMENTALS OF DISTRIBUTION (DE 10) AT ABINGDON HIGH SCHOOL

A Research Paper
Presented to
the Faculty
Old Dominion University

In Partial Fulfillment
of the Requirements for
the Master of Science Degree
in Education

by
Paula J. Hill
December, 1979
This research paper was prepared by Paula J. Hill under the direction of Dr. John E. Turner in Education 636, Problems in Education. It was submitted to the Graduate Program Director as partial fulfillment of the requirements for the degree of Master of Science in Secondary Education.

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Dr. John E. Turner, Advisor  

Date  

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Graduate Program Director  

Vocational/Industrial Arts Education  

Date
ACKNOWLEDGEMENTS

This study was prepared under the direction of Dr. John E. Turner, Professor of Education, Old Dominion University. The author extends her appreciation to Dr. Turner for his professional guidance and assistance in preparation of this paper.

The author is indebted to Dr. Ron Ely, Vocational Director of Washington County Schools, for his cooperation and assistance.

The author also acknowledges with gratitude to her husband, Frederick Michael Hill, for his continued support; to her parents, Mr. and Mrs. Paul L. Moad; and to Mr. and Mrs. James G. Turner.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>vi</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>I. AN OVERVIEW</td>
<td>1</td>
</tr>
<tr>
<td>STATEMENT OF THE PROBLEM</td>
<td>2</td>
</tr>
<tr>
<td>IMPORTANCE OF THE STUDY</td>
<td>3</td>
</tr>
<tr>
<td>LIMITATIONS OF THE STUDY</td>
<td>3</td>
</tr>
<tr>
<td>DEFINITION OF TERMS</td>
<td>4</td>
</tr>
<tr>
<td>II. A REVIEW OF SELECTED LITERATURE AND RESEARCH</td>
<td>6</td>
</tr>
<tr>
<td>CAREER EXPLORATION IN MIDDLE SCHOOL</td>
<td>7</td>
</tr>
<tr>
<td>MARKETING AND DISTRIBUTION EXPLORATORY CURRICULUM UNITS</td>
<td>8</td>
</tr>
<tr>
<td>EXPLORATORY DE 8 CURRICULUM AT ABINGDON HIGH SCHOOL</td>
<td>9</td>
</tr>
<tr>
<td>ADMINISTRATIVE VIEW OF EXPLORATORY COURSES</td>
<td>10</td>
</tr>
<tr>
<td>III. METHODS AND PROCEDURES</td>
<td>11</td>
</tr>
<tr>
<td>STATEMENT OF THE NULL HYPOTHESIS</td>
<td>11</td>
</tr>
<tr>
<td>POPULATION OF THE STUDY</td>
<td>11</td>
</tr>
<tr>
<td>INSTRUMENT SELECTION AND DEVELOPMENT</td>
<td>12</td>
</tr>
<tr>
<td>COLLECTION OF THE DATA</td>
<td>13</td>
</tr>
<tr>
<td>TREATMENT OF THE DATA</td>
<td>13</td>
</tr>
<tr>
<td>IV. PRESENTATION AND ANALYSIS OF THE DATA</td>
<td>14</td>
</tr>
<tr>
<td>ANALYSIS OF THE POPULATION</td>
<td>14</td>
</tr>
<tr>
<td>ANALYSIS OF THE REASONS FOR STUDENT CHOICE OF DE 10</td>
<td>15</td>
</tr>
<tr>
<td>ANALYSIS OF SUCCESSFUL IDENTIFICATION OF MARKETING AND DISTRIBUTION JOBS</td>
<td>20</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alternating Schedule For Eighth Grade Exploratory Courses</td>
<td>2</td>
</tr>
<tr>
<td>2. Analysis of Returns</td>
<td>15</td>
</tr>
<tr>
<td>3. Factors Ranked First</td>
<td>17</td>
</tr>
<tr>
<td>4. Factors Ranked Second</td>
<td>17</td>
</tr>
<tr>
<td>5. Factors Ranked Third</td>
<td>18</td>
</tr>
<tr>
<td>6. Analysis of Job Plans</td>
<td>19</td>
</tr>
<tr>
<td>7. Correct Responses in Identifying All Distribution Jobs on a Given List</td>
<td>20</td>
</tr>
</tbody>
</table>
CHAPTER I

AN OVERVIEW OF THE PROBLEM

Exploratory courses for students in the eighth grade at Abingdon High School, Abingdon, Virginia, were implemented beginning with the 1977-78 school term. All students enrolled in the eighth grade at Abingdon High School take exploratory courses.

These students are equally divided into two sections for scheduling purposes. One section attends exploratory courses during sixth period in agriculture, French, guidance, home economics, Spanish, and distributive education. The other section attends exploratory courses during the seventh period in agriculture, French, guidance, home economics, Spanish, and music.

The eighth grade students scheduled for exploratory courses during the sixth period are divided into six groups. Each group attends all exploratory courses, rotating from one subject area to another at the end of each six-weeks. This alternating schedule of student groups is better clarified in Table 1 below.

The eighth grade students scheduled for exploratory courses during the seventh period are also divided into six groups, and each group alternately attends all exploratory courses taught during that period. Again, student groups rotate from one course to the next at the end of each six-weeks.

Since the exploratory courses are designed to give the student an overview of the upper level courses in these instructional areas as well as possible careers available, it is important to this
study that distributive education be taught to only one-half of the students enrolled in the eighth grade.

Table 1

Alternating Schedule For Eighth Grade
Exploratory Courses

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri.</td>
<td>Group A</td>
<td>Group B</td>
<td>Group C</td>
<td>Group D</td>
<td>Group E</td>
<td>Group F</td>
</tr>
<tr>
<td>D. E.</td>
<td>Group B</td>
<td>Group C</td>
<td>Group D</td>
<td>Group E</td>
<td>Group F</td>
<td>Group A</td>
</tr>
<tr>
<td>Home Ec.</td>
<td>Group C</td>
<td>Group D</td>
<td>Group E</td>
<td>Group F</td>
<td>Group A</td>
<td>Group B</td>
</tr>
<tr>
<td>Guidance</td>
<td>Group D</td>
<td>Group E</td>
<td>Group F</td>
<td>Group A</td>
<td>Group B</td>
<td>Group C</td>
</tr>
<tr>
<td>French</td>
<td>Group E</td>
<td>Group F</td>
<td>Group A</td>
<td>Group B</td>
<td>Group C</td>
<td>Group D</td>
</tr>
<tr>
<td>Spanish</td>
<td>Group F</td>
<td>Group A</td>
<td>Group B</td>
<td>Group C</td>
<td>Group D</td>
<td>Group E</td>
</tr>
</tbody>
</table>

This table shows the scheduling for student groups during sixth period. It is the same for seventh period except that music is taught instead of distributive education.

STATEMENT OF THE PROBLEM

The problem of this study was to determine the effectiveness of Exploratory DE 8 on student choice of distributive education as an elective course at the tenth grade level.

Since the exploratory courses were intended to provide students a broader outlook for making decisions concerning their occupational preparation, it was necessary to determine what effect the DE 8 course had on student selection of DE 10 at Abingdon High School.

Therefore, it was proposed that the exploratory DE 8 course had no effect on student choice in selecting Fundamentals of Distribution (DE 10) as a tenth grade elective course.
IMPORTANCE OF THE STUDY

The State of Virginia, through the enactment of the Standards of Quality for Public Schools, has mandated that vocational education programs will show a 70% retention rate in the occupational field for which students were trained. It is therefore very important that student interest in marketing and distribution occupations be determined prior to entry into the occupational preparation phase (DE 10). The purpose of the DE 8 course at Abingdon High School is to help students explore careers in marketing and distribution and compare their interests, aptitudes, and abilities with those normally required for success in their field.

The findings of this study should provide an indication of the effectiveness of DE 8 in helping students determine early that they do or do not want employment in this field. The results of this study will be considered along with other factors by the Abingdon High School administration in deciding whether to continue to offer the DE 8 course as part of the exploratory curriculum.

LIMITATIONS OF THE STUDY

The students surveyed in this study were enrolled in DE 10 for the 1979-80 school year. Part of these students were scheduled for exploratory courses in 1977-78 during the sixth period and part during seventh period. Since DE 8 was taught only during sixth period, some of the students currently enrolled in DE 10 did not complete DE 8.

This study consisted of an experimental group and a control group. The control group consisted of those students currently enrolled in DE 10 not completing DE 8, while the experimental group consisted of students currently enrolled in DE 10 who had completed DE 8.
A limitation of this study was that neither group was randomly selected, though student choice had no effect on grouping. A second limitation was that no attempt was made in this study to determine all the factors causing student selection of DE 10, such as former students, current students, parents, employers, D. E. teachers, guidance counselors, or administrators.

DEFINITION OF TERMS

Career cluster--all jobs are grouped into fifteen areas or clusters by the U. S. Office of Education. The marketing and distribution cluster includes jobs in management, sales promotion and training, research, purchasing, selling, distribution, insurance, and financing. (Ressler, Gerken, and Owens, 1978)

Career exploration--the technique of helping students to discover and explore their particular interests, aptitudes, and abilities so they would be able to make wise decisions regarding educational and vocational opportunities. (Evans, Hoyt, and Mangum, 1973)

Career education--all educational activities and experiences through which individuals learn about themselves in relationship to life styles and to the world of work. (Wilson, 1977)

Distributive education--a vocational instructional program designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation requiring competency in one or more of the marketing functions. (Crawford and Meyer, 1972)

Elective--an optional course in an academic curriculum. (Davies, 1974)

Exploratory DE 8--a six-weeks course given to alternating groups of approximately twenty eighth-grade students instructing them on
careers in the marketing and distribution cluster with an overview of DE 10, 11, and 12 at Abingdon High School. (Ely, 1979)

Fundamentals of Distribution (DE 10)--the beginning course for the cooperative distributive education program, which prepares students to go to work in a distributive business. The course content includes social and basic competencies, selling, business organization, and careers in the marketing and distribution cluster.
CHAPTER II

A REVIEW OF SELECTED LITERATURE AND RESEARCH

The term "career education" and the initiation of the career education movement is attributed to Sidney P. Marland, Jr. U. S. Commissioner of Education during 1971-72 (Evans, Hoyt, and Mangum, 1973). Marland stated that he believed that education in America was not meeting the need for helping the individual prepare for a "career". He challenged the educational system to carry out a program of career education, by offering within the curriculum instruction on the multitude of different jobs available to individuals.

The concept of career education was further developed by Kenneth B. Hoyt. Hoyt believed that schools should provide educational experiences which enable the individual to become familiar with the economic system and allow the individual to explore various occupational clusters. He stated that there were five phases of career education: awareness, orientation, exploration, preparation, and adult and continuing education (Insko, 1974). Using the ideas of many researchers, especially the "life stages" theory of Donald E. Super, Hoyt emphasized that any given individual has only one career, although he or she may change positions, jobs, or vocations several times during his or her lifetime (Evans, Hoyt, and Mangum, 1973).

Larry J. Bailey and Ronald Stadt, in their book Career Education (1973), use Hoyt's five phases and apply them to public school grades kindergarten through twelve. As an educational concept, "career education" has been greatly debated during the past decade. Much of
the rhetoric has dealt with such questions as "Where should career education begin? Why? and at what depth?"; "Do schools begin it at the elementary level, or at junior high, or high school level?"; "Should it begin at the college level?"; or "Some place else?"; "If some place else outside public education, where? parents? educational television? colleges?" Bailey and Stadt (1973) apply school grade levels to the five phases as follows, in order to answer such questions: awareness (grades K - 3); orientation (grades 4 - 6); exploration (grades 7 - 9); preparation (grades 10 - 12); adult and continuing education (any training after leaving high school).

The review of literature for this study pertained to that portion of career education in relation to grades seven, eight, and nine generally referred to as Career Exploration. More specifically, this review covered literature and research pertaining to career exploration of the marketing and distribution career cluster.

CAREER EXPLORATION IN MIDDLE SCHOOL

Since most schools adopting career education have had these programs implemented for only a few years, research on these programs is just beginning.

Some researchers have begun studies of the phase known as career exploration. The dissertation of Merrill L. Meehan in late 1975 is one of the first studies of career exploration for adolescent students. Some conclusions of his study were that exploratory business education courses can successfully be implemented at the middle school and that it is possible to design activities which appeal to a wide range of student backgrounds.
The National Education Association (1977) reports on the descriptive analysis of recent research by Dr. Robert D. Bhaerman. Many of these studies were done in order that school divisions could report to the U. S. Office of Education. Dr. Bhaerman summarized the reports on career exploration in middle school from states throughout the nation.

Most of the research findings reported by Dr. Bhaerman show that integrating career education into the academic classes had a definite impact on achievement in reading, writing, and language arts. Students improved their skills in these areas primarily because of interest sparked by career exploration. The students could relate to the need for learning these skills.

A doctoral study by Rita S. Bryant in 1976, included in Dr. Bhaerman's descriptive analysis of research (Wilson, 1977), reported statistically significant gains in the total test battery, vocabulary, language, mechanics, and expression—all favoring the experimental group. The researcher affirmed that the integration of career education concepts can have positive effects on cognitive growth.

MARKETING AND DISTRIBUTION EXPLORATORY CURRICULUM UNITS

This study included a review of marketing and distribution exploratory curriculum units from Kentucky, New Jersey, Wisconsin, four units from Florida, and two units from Virginia. All are similar to the unit used at Abingdon High School.

In career exploration courses, students are encouraged to refine their tentative career choices and to plan how to spend their remaining high school years on preparation for a few career fields. All
these curriculum units were designed to introduce careers in marketing and distribution and the career planning process. Each has as its aim to achieve a single outcome: acceptance or rejection of further exploration and preparation for a career in marketing and distribution. Even for those who decline to pursue further study, valuable learning in career decision-making and in the central role of marketing and distribution in the economy will have been gained (Gordon, Wiley, Tobin, Andrade, and Engstrom, 1975).

EXPLORATORY DE 8 CURRICULUM
AT ABINGDON HIGH SCHOOL

The curriculum guide used for the Exploratory DE 8 course at Abingdon High School is Career Exploration in Marketing and Distribution by Alice K. Gordon and others (1975), of the Contract Research Corp., Belmont, Massachusetts. In the "Introduction to the Teacher" section, the authors state:

Career exploration leads the individual to investigate many fields. In this curriculum, students focus on marketing and distribution, but they learn and use tools which they can apply to exploration of any field or occupation.

The course content is given in Appendix A. The instructor for the course uses the curriculum guide for much of the content, helps students take the California Occupational Preference Survey and do self-scoring, teaches students cash register operation and change making, and takes students on field trips to local marketing and distributive businesses to observe actual employees at work.
Dr. Ron Ely, Director of Vocational and Continuing Education for Washington County, Abingdon, Virginia, is responsible for the implementation and continuation of the career exploration courses at Abingdon High School and is the authority on the background and development of these courses in the county's schools. Like many educators in the mid-1970's, Dr. Ely recognized the need for schools to prepare the individual for a life of economic independence, personal fulfillment, and an appreciation for the dignity of work. He believes strongly that a career extends over one's entire lifetime and that schools should incorporate the career education concept into the whole instructional plan (Ely, 1979).

In an interview, he stated his agreement with the phases referred to by Bailey and Stadt (1973), and that the secondary schools in Washington County must provide for career clusters exploration at the eighth grade level. Under his direction, exploratory courses were implemented at John Battle High School in 1976 and at Abingdon High School in 1977. Since then, he has continued to direct and guide these programs.

At the beginning of each school term, Dr. Ely meets with the instructors of these exploratory courses to discuss their plans for course content and activities. An evaluation meeting is scheduled by Dr. Ely at the end of the school term to allow instructors to critique their exploratory program and give him an evaluation of the year.
CHAPTER III

METHODS AND PROCEDURES

A discussion of the design and procedures used for the collection and treatment of the data in this study is contained in this chapter under the following headings: (1) statement of the null hypothesis, (2) population of the study, (3) instrument selection and development, and (4) collection of the data.

STATEMENT OF THE NULL HYPOTHESIS

It was the problem of this study to determine the effectiveness of Exploratory DE 8 on student choice of Fundamentals of Distribution (DE 10) as an elective at Abingdon High School. It was the purpose of this research to show that completing DE 8 had no effect on student choice of DE 10.

POPULATION OF THE STUDY

Students enrolled in Fundamentals of Distribution for the 1979-80 school term at Abingdon High School constituted the population of this study. Possible exceptions to the population were that students who were not enrolled at Abingdon High School in the eighth grade during 1977-78 could not be included in the population; that there may have been some students enrolled in DE 10 this year who did not attend Abingdon High School during 1977-78; and that there may have been some students enrolled in DE 10 this year who were in the ninth grade during 1977-78 and repeated the ninth grade in 1978-79. The entire population of thirty-five students enrolled in DE 10 this year was included in
this study since none of the possible exceptions existed.

INSTRUMENT SELECTION AND DEVELOPMENT

Career education is viewed as a lifelong process. Within the structure of public education, one phase of career education is called career exploration. This phase usually begins during the junior high or middle school years. Students of this age are beginning to develop and test their own identity and to seek role models for their future adulthood. Evans, Hoyt and Mangum (1973) state that exploration of self, of society and one's role in it, including the working role is the name of the game for ages ten through fifteen. Exploration of careers includes not only information about various jobs and skill requirements of each but also information about the life style associated with each job.

At Abingdon High School the Exploratory DE 8 course attempts to provide students with knowledge of jobs and life-styles available in the marketing and distribution career cluster.

A survey of the population in this research was conducted to determine (1) the number and percentage of students currently enrolled in DE 10 who completed DE 8, (2) the number and percentage of students currently enrolled in DE 10 showing DE 8 as a major reason for selection of DE 10, (3) the number of students indicating a distributive occupation as a career goal at the completion of high school, and (4) the number of students who can successfully identify distributive occupations from a list of varied occupations.

This questionnaire is shown in Appendix B. A list of various distributive occupations used for coding purposes by the U. S. Office of Education is shown in Appendix C.
COLLECTION OF THE DATA

The population of this study was defined at the opening of the school term for 1979-80. Students enrolled in DE 10 during this school term constituted the total population of the study. Therefore, it was possible to survey the entire population of thirty-five students.

On August 28, 1979, the questionnaire was administered to each member of the population. Students were instructed to complete the questionnaire according to the directions for each section. Questionnaires were collected at the end of each of the two class periods. The entire population of this study, 100%, was surveyed on the date stated above.

TREATMENT OF THE DATA

The results of the questionnaire were divided into two groups for analysis and comparison: (1) students who completed DE 8; and (2) students who did not complete DE 8. The data was analyzed using nonparametric statistics, the chi-square test of significance. The results show a number of comparisons between the experimental group and the control group.
CHAPTER IV.

PRESENTATION AND ANALYSIS OF THE DATA

The problem of this study was to determine the effectiveness of Exploratory DE 8 on student choice of Fundamentals of Distribution (DE 10) as an elective at Abingdon High School. This chapter contains the presentation and the analysis of data relative to the following: (1) the number and percentage of students currently enrolled in DE 10 who completed DE 8, (2) the comparison of reasons for selecting DE 10 as an elective by members of the population who completed DE 8 versus by members of the population who did not complete DE 8, (3) comparison of the reasons for selection as to first, second, and third choice ranking, (4) the number and percentage of students indicating a distributive occupation as a career goal at the completion of high school, and (5) the number and percentage of students in the experimental group and in the control group who can successfully identify distributive occupations from a list of varied occupations.

ANALYSIS OF THE POPULATION

The population of this study consisted of all students enrolled in Fundamentals of Distribution (DE 10) for the 1979-80 school year. All thirty-five of these students surveyed in this study were enrolled at Abingdon High School in the eighth grade during the 1977-78 school year.

Part of these students were scheduled for exploratory courses in 1977-78 during the sixth period and part during the seventh period. Since Exploratory DE 8 was taught only during sixth period, some of the students currently enrolled in DE 10 did not complete DE 8. Of the
thirty-five students currently enrolled in DE 10, fifteen (43%) completed Exploratory DE 8 and twenty (57%) did not complete DE 8. All fifteen of these students who completed DE 8 passes the course. These percentages are shown in Table 2 below.

Table 2
Analysis of Returns

<table>
<thead>
<tr>
<th>Group</th>
<th>#Surveyed</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed DE 8</td>
<td>15</td>
<td>43%</td>
</tr>
<tr>
<td>Did not complete DE 8</td>
<td>20</td>
<td>57%</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100%</td>
</tr>
</tbody>
</table>

Of these fifteen students, thirteen (86 2/3%) indicated that taking DE 8 increased their interest in a career in distribution. The other two (13 1/3%) students indicated that taking DE 8 had no impact on their interest in a career in distribution.

ANALYSIS OF THE REASONS FOR STUDENT CHOICE OF DE 10

A multitude of studies have been compiled by Distributive Education teacher-coordinators and teacher-educators in Virginia to determine the factors affecting student choice of Fundamentals of Distribution as an elective course by high school students. The results of these studies (the factors) have been used in the curriculum of teacher-educator institutions in Virginia for many years. The factors have also been used in in-service training presentations to teacher-coordinators. The supervisory staff for D. E. in Virginia (both local and state staff) as well as D. E. teacher educators have listed the following factors affecting student choice of DE 10: friends, relatives,
D. E. teacher-coordinators, guidance counselors, and obtaining employment.

The questionnaire administered for this study used these factors and added to these the factor of the Exploratory DE 8 course at Abingdon High School. On the questionnaire students were instructed to indicate which of these factors were most important in influencing their decision to take DE 10; they were to rank their answers first, second, and third in order of importance.

The rankings by students who completed DE 8 were compared to those by students who did not complete DE 8.

The comparison of reasons ranked first are shown in Table 3 below. Students in both groups indicated friends or relatives were ranked as a very influential reason for selecting DE 10 as an elective. Of the students who completed DE 8, 27% ranked friends and 27% ranked relatives as the most important reason. Of the students who did not complete DE 8, 35% ranked friends as the most influential reason for choosing DE 10.

However, 40% of the students who did not complete DE 8 ranked other as the most influential reason for selecting DE 10. On the questionnaire, students were provided space to indicate for "other". All students who marked this space indicated that "other" was "get a job". Therefore, 40% of the control group indicated that obtaining a job was the foremost reason why they selected DE 10.
Table 3
Factors Ranked First

<table>
<thead>
<tr>
<th>Factor</th>
<th># Completed DE 8</th>
<th>%</th>
<th># Did not Complete</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory DE 8</td>
<td>2</td>
<td>12%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Friend</td>
<td>4</td>
<td>27%</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>Relative</td>
<td>4</td>
<td>27%</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>D. E. teacher</td>
<td>1</td>
<td>7%</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Guidance counselor</td>
<td>1</td>
<td>7%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other (Get a job)</td>
<td>3</td>
<td>20%</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100%</td>
<td>20</td>
<td>100%</td>
</tr>
</tbody>
</table>

The comparison of reasons ranked second are shown in Table 4 below. It is important to this study to note here that 53% of the students who completed DE 8 ranked Exploratory DE 8 as the second most influential factor for selecting DE 10 as an elective. Students who did not complete DE 8 ranked relative as the second most influential factor by 40%.

Table 4
Factors Ranked Second

<table>
<thead>
<tr>
<th>Factor</th>
<th># Completed DE 8</th>
<th>%</th>
<th># Did not Complete</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory DE 8</td>
<td>8</td>
<td>53%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Friend</td>
<td>2</td>
<td>13 1/3%</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>Relative</td>
<td>3</td>
<td>20%</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>D. E. teacher</td>
<td>2</td>
<td>13 1/3%</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>Guidance counselor</td>
<td>0</td>
<td>0%</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100%</td>
<td>20</td>
<td>100%</td>
</tr>
</tbody>
</table>
The comparison of reasons ranked third are shown in Table 5 below. Both groups showed that D. E. teacher-coordinators are the third most influential factor in selecting DE 10. The experimental group indicated this by 33 1/3%; the control group indicated so by 35%.

Table 5
Factors Ranked Third

<table>
<thead>
<tr>
<th>Factor</th>
<th># Completed DE 8</th>
<th>%</th>
<th># Did not Complete</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory DE 8</td>
<td>3</td>
<td>20%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Friend</td>
<td>4</td>
<td>26 2/3%</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>Relative</td>
<td>1</td>
<td>6 2/3%</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>D. E. Teacher</td>
<td>5</td>
<td>33 1/3%</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>Guidance counselor</td>
<td>2</td>
<td>13 1/3%</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100%</td>
<td>20</td>
<td>100%</td>
</tr>
</tbody>
</table>

In comparison of factors ranked by both groups, the following is important to this study: (1) only three students in the experimental group indicated that obtaining a job was of primary importance, while ten of the control group indicated this; (2) friends and relatives were indicated by both groups as very important factors; (3) very few students indicated guidance counselors were an important influence; and (4) Exploratory DE 8 was indicated as a primary factor for selecting DE 10.

An analysis of the observations noted in Tables 2, 3, and 4 was made using a nonparametric statistical test, the chi-square test of significance. The chi-square formula is given below:

\[ \chi^2 = \sum \left( \frac{(f_e - f_0)^2}{f_e} \right) \]
\( x^2 \) = the value of chi-square  
\( f_0 \) = the observed frequency  
\( f_e \) = the expected frequency

Applying this formula (Ary, Jacobs, and Razavieh, 1979) to the data in Tables 3, 4, and 5 showed that there was no significant difference at the .05 level of confidence, between rankings of the two groups. However, there is a significant difference at the .20 level of confidence between groups in Tables 4 and 5.

**ANALYSIS OF JOB PLANS AFTER COMPLETING HIGH SCHOOL**

The questionnaire administered to the population of the study contained a section for the student to indicate his/her job plans after completing high school. These jobs were then grouped by career clusters (Ressler, Gerken, and Owens, 1978). The analysis of job plans is presented in Table 6 below.

<table>
<thead>
<tr>
<th>Group</th>
<th>Marketing and Distribution Cluster</th>
<th>Other Cluster</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed DE 8</td>
<td>11</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Did not complete DE 8</td>
<td>8</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>16</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

When the chi-square test of significance was applied to this data, the result was that \( x^2 = 3.95 \). At the .05 level of confidence, the proportion of the experimental group who chose a marketing and distribution job was significantly greater than that of the control group who chose a marketing and distribution job.
ANALYSIS OF SUCCESSFUL IDENTIFICATION OF MARKETING AND DISTRIBUTION JOBS

The last section of the questionnaire administered for this study instructed students to indicate all the marketing and distribution jobs given in a list of twenty jobs. The list was prepared to include eight jobs in the marketing and distribution cluster.

The data gathered from this section is shown in Table 7 below.

Table 7
Correct Responses in Identifying All Distribution Jobs on a Given List

<table>
<thead>
<tr>
<th>Correct Responses</th>
<th>Completed DE 8</th>
<th>Did not complete DE 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 correct</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7 correct</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6 correct</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>5 correct</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4 correct</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3 correct</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2 correct</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1 correct</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>0 correct</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>20</td>
</tr>
</tbody>
</table>

Since students also indicated incorrect responses, a method to determine the number of correct responses from the total number of responses was needed. The number of incorrect responses was subtracted from the number of correct responses in order to score this section. For example, if a student indicated 12 jobs on the list and seven of these were correct, there would be five incorrect responses. The
student would have a score of two \((7 - 5 = 2)\) correct responses.

At Abingdon High School a passing grade is given for 75% correct responses. This measure was applied to the results of this section of the questionnaire. Six correct responses is 75% of the total possible number of correct responses. When this is applied to the data, it was shown that seven students, or 47%, who completed DE 8 had six or more correct responses. However, five students, or 25%, who did not complete DE 8 had six or more correct responses.

When the chi-square test of significance was applied to this data, no significant difference between the two groups was shown at the .05 level of confidence.
CHAPTER V

SUMMARY AND RECOMMENDATIONS

This study was implemented for the purpose of determining the effectiveness of Exploratory DE 8 on student choice of DE 10 as an elective at Abingdon High School. The results of the study will be considered along with other factors by the Abingdon High School administration in deciding whether to continue to offer the DE 8 course as part of the exploratory program. The population of this study consisted of all students enrolled in DE 10 for the 1979-80 school year. Each student was administered a questionnaire on August 28, 1979. Of the thirty-five students currently enrolled in DE 10, fifteen completed DE 8 and twenty did not complete DE 8 during the 1977-78 school year. This chapter contains a summary of the results of the study and recommendations based on these results.

RESULTS OF THE STUDY

The data gathered from the questionnaire used in this study were compiled and analyzed relative to the following: (1) an experimental group (students who completed DE 8) and a control group (students who did not complete DE 8); (2) comparison of reasons for selecting DE 10 by the experimental group and the control group; (3) comparison of rankings of reasons for selecting DE 10 by both groups; (4) indications of job plans after completing high school; and (5) successful identification of marketing and distribution occupations.

Observations noted in Tables 3, 4, and 5 were analyzed using the chi-square statistical test of significance. It was noted that there was no significant difference at the .05 level of confidence; however, at the .20 level of confidence, reasons ranked second and
third in importance were significant. Exploratory DE 8 is important in relation to other causal factors. Also, Distributive Education teacher-coordinators are an influencing factor in student choice of DE 10.

The chi-square test was also used to analyze results in relation to job plans and identification of marketing and distribution occupations. There was no significant result for identifying marketing and distribution jobs; however, results of stated job plans were significant. At the .05 level of confidence, the proportion of the experimental group who chose a marketing and distribution job was significantly greater than that of the control group who chose a marketing and distribution job.

Using the passing grade of 75% correct responses of Abingdon High School, it was shown that 47% of the experimental group could correctly identify marketing and distribution jobs, while only 25% of the control group could identify these jobs.

Also, it is important to note that only three students in the experimental group indicated that the main reason for selecting DE 10 was to obtain employment, while 40% of the control group indicated this.

RECOMMENDATIONS OF THE STUDY

Although statistical analyses of data did not show significant differences between groups in most cases, consideration should be given to maintaining the DE 8 course in the exploratory program at Abingdon High School. Analyses do show that DE 8 is a causal factor in influencing students to choose DE 10 as an elective. Also, this study has shown that students who completed DE 8 indicate job plans after high
school in the marketing and distribution field.

Since the Standards of Quality for Public Schools has mandated a 70% retention rate in the occupational field, it is important to offer students a course to explore marketing and distribution in order to decide acceptance or rejection of this occupational cluster.
APPENDIX A
Career Exploration in Marketing and Distribution

COURSE CONTENT

What is a career?
What is marketing and distribution all about?
A look at marketing and distribution occupations
Who is a consumer?
Overview of the marketing and distribution process
Channels of distribution
Common skills in marketing and distribution
  Communication skills
  Social skills
  Basic math skills
  Equipment operation skills
Impact of work on life styles
Self assessment and occupational analysis

Paula Hill  Bill Wheeler
Coordinator  Coordinator
Distributive Education  Distributive Education
Abingdon High School  Abingdon High School
APPENDIX B
DISTRIBUTIVE EDUCATION I
INFORMATION SURVEY
August 28, 1979

Name: ___________________________ Class: ________________________

DIRECTIONS: Please read the following statements carefully and give your answers to the best of your knowledge. Remember, this is an information survey; it is NOT a test.

I. INDICATE which of the following are the most important reasons why you decided to take D. E. I. Rate these as first (1), second (2), and third (3) most important reasons.

   _____ Exploratory DE 8
   _____ Friend
   _____ Relative
   _____ D. E. Teacher
   _____ Guidance Counselor
   _____ Other ____________________________ (Please list)

II. INDICATE BELOW if you completed exploratory distributive education in the eighth grade.

   _____ YES, I completed DE 8. _____ Pass   _____ Fail
   _____ NO, I did not complete DE 8.

III. INDICATE your answer below.

   If you completed DE 8, did that course increase your interest in a career in distribution?

   _____ YES, taking DE 8 increased my interest in a career in distribution.
   _____ NO, taking DE 8 had no impact on my interest in a career in distribution.
   _____ DE 8 caused me to have less interest in a career in distribution.

IV. GIVE the job you plan to seek when you have completed high school.

   __________________________________________
V. IDENTIFY all jobs in marketing and distribution included in the list below by placing a mark (✓) beside the job title.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1. waitress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2. typist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. computer operator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. advertising copywriter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. real estate agent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. plumber</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. auto mechanic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. beautician</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. stock clerk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. movie projectionist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11. airline pilot</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12. salesperson</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13. carpenter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14. chef</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15. buyer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16. forest ranger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17. cashier/checker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18. dairyman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19. golf pro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20. assistant store manager</td>
</tr>
</tbody>
</table>
EXPLANATION OF OE CODES FOR DISTRIBUTIVE EDUCATION

The OE codes listed below are for purposes of identifying the actual job (groups of major tasks) which the student in an occupational DE program performs the majority of the time through on-the-job training or approved simulated occupational experiences. They are also for the purpose of identifying the tentative career interest of a student enrolled in DE I exploratory course (the job the student wishes to explore in greater depth.)

These codes are to be used for the 4046 report and all activities of the competency-based instructional system of the Virginia DE program.

04.01 ADVERTISING AND DISPLAY SERVICES - Planning, development, placement or installation, and evaluation tasks performed by marketing employees, including management personnel, in demand creation and sales promotion activities utilizing displays, merchandising aids, and mass media in various enterprises, such as advertising agencies, display houses, retail and wholesale establishments, production industries, and print and broadcast media.

04.02 APPAREL AND ACCESSORIES MARKETING - Marketing functions and tasks performed by employees, including management personnel, in retail, wholesale, and manufacturing establishments primarily engaged in marketing clothing of all kinds, including related articles for personal wear and adornment.

04.03 AUTOMOTIVE, RECREATIONAL, AND AGRICULTURAL VEHICLES AND ACCESSORIES MARKETING - Marketing functions and tasks performed by employees, including management personnel, in retail, wholesale, manufacturing, and service establishments concerned with cars, vans, trucks, mobile units, boats and other recreational vehicles, tractors and other farm vehicles and implements, as well as related parts, accessories, and equipment.

04.04 FINANCE AND CREDIT SERVICES - Marketing functions and tasks performed by employees, including management personnel, in various institutions, such as commercial banks, savings and loan associations, credit agencies, credit unions, consumer finance, collection agencies, security and commodity brokerages, and in credit departments in retail and wholesale establishments.

04.05 FLORISTRY, FARM, AND GARDEN SUPPLIES MARKETING - Marketing functions and tasks performed by employees, including management personnel, in retail and wholesale establishments dealing with live plants, cut flowers, floral arrangements, artificial flowers and plants, garden supplies, equipment, and related items, and seed, fertilizers, and other supplies for farm productions.
04.06 FOOD MARKETING - Marketing functions and tasks performed by employees, including management personnel, in retail and wholesale establishments and in food processing and manufacturing firms primarily dealing with food products for home preparation and consumption or for commercial and institutional use in their places of food service.

04.07 FOOD SERVICES MARKETING - Marketing functions and tasks performed by employees, including management personnel, in establishments serving prepared food and beverages for consumption on their premises or at a place designated by a customer.

04.08 GENERAL MERCHANDISE RETAILING - Marketing functions and tasks performed by employees, including management personnel, in typically large retail stores engaged in merchandising a number of lines of merchandise, such as department stores, where personnel are prepared to perform routine and complex tasks in relation to merchandising practices and concepts of mass merchandising rather than on in-depth knowledge of a single-line product or service and where occupational mobility therein involves multiple experiences in different marketing functions and merchandise lines and service areas.

04.09 HARDWARE AND BUILDING MATERIALS MARKETING - Marketing functions and tasks performed by employees, including management personnel, in retail and wholesale establishments and in manufacturing firms primarily dealing with one or more of the following product lines: hardware, paint, wallcoverings, lumber, building materials, glass, electrical supplies, plumbing, heating and air conditioning equipment, and other materials, supplies, and equipment used by the general public and contractors.

04.10 HOME FURNISHINGS MARKETING - Marketing functions and tasks performed by employees, including management personnel, in retail, wholesale, and manufacturing establishments dealing with products primarily used for furnishing the home, such as furniture, electrical and gas appliances, floor coverings, draperies, and other specialized lines, such as lamps, chinaware, antiques.

04.11 HOTEL, MOTEL, AND LODGING SERVICES - Marketing functions and tasks performed by employees, including management personnel, in establishments engaged in furnishing lodging, lodging and meals, convention facilities, camping facilities, and other accommodations on a year-round or seasonal basis to the general public and to special groups, such as an organization's membership.

04.12 INDUSTRIAL AND INSTITUTIONAL MARKETING - Marketing functions and tasks performed by employees, including management personnel, in establishing marketing potentials by manufacturers for their industrial products, in the marketing of products to businesses, production industries, professional personnel and organizations, governmental agencies and institutions, and in the purchasing of such products and supplies by these various businesses and institutions.
04.13 INSURANCE - Marketing functions and tasks performed by employees, agents, or independent brokers, including management personnel, engaged in the sale or placement of insurance contracts with carriers.

04.14 INTERNATIONAL MARKETING - Marketing functions and tasks performed by employees, including management personnel, in various business and industrial establishments engaged partially or totally in export/import trade, and buying and selling in international markets. This instructional program includes elements of foreign trade which influence international marketing operations, such as trade controls, foreign operations, monetary problems, and foreign public relations.

04.15 PERSONAL SERVICES MARKETING - Marketing functions and tasks performed by employees, including management personnel, in consumer service establishments, such as shoe repair shops, funeral homes, laundries and dry cleaning establishments, photographic studios, dance and art studios, barber/styling shops, beauty shops, gymnasiums, home maintenance and security firms, pet care shops, rental businesses other than vehicle, and protection agencies. Generally, these services are concerned with the well-being of a person or the care of his/her property. Emphasis is placed on the marketing activities involved in providing a personal service and not on the development of manual or technical skills that are used to perform a particular service or task for which a special license may be required.

04.16 PETROLEUM MARKETING - Marketing functions and tasks performed by employees, including management personnel, in retail and wholesale establishments engaged in the distribution of petroleum products.

04.17 REAL ESTATE MARKETING - Marketing functions and tasks performed by personnel who act for themselves or as agents for others in real estate brokerages or other firms engaged in buying, selling, appraising, renting, managing, and leasing of real property.

04.18 RECREATION MARKETING - Marketing functions and tasks performed by employees, including management personnel, in establishments primarily engaged in providing amusement, recreation, entertainment, sporting, or sightseeing services on a payment of a fee or admission charge, including sporting and recreational facilities other than resort accommodations, or in retail or wholesale establishments marketing recreational supplies and equipment, such as sporting goods.

04.19 TRANSPORTATION AND TRAVEL MARKETING - Physical movement of people, personal effects, and products, and the marketing functions and tasks performed by employees, including management personnel, in enterprises engaged in passenger and freight transportation, travel services, warehousing, and other services incidental to transportation, travel, or tourism.
04.20 BUSINESS SERVICES MARKETING - Marketing functions and tasks performed by employees, including management personnel, in firms primarily engaged in providing services, not elsewhere classified, to business establishments on a fee or contract basis, such as sales, buying, marketing research, management and consulting services, protective services, public relations, financial services, building maintenance, employment services, and equipment rental and leasing.

04.21 BUSINESS OWNERSHIP (ENTREPRENEURSHIP) - Marketing functions and tasks, with particular emphasis on financing and management, performed by persons who undertake the formation and operation of an enterprise, including franchise operations, for the purpose of marketing a product line or service, and assume the social and legal responsibilities and the risks involved in the conduct of an enterprise.

04.22 GENERAL MARKETING - General application of marketing functions, principles, practices, and procedures without particular emphasis to the kind of environment in which the marketing functions are performed or the kind of products or services involved. The basic knowledges, skills, and attitudes developed in this instructional program are applicable in a variety of industries.

04.99 SALES AND MARKETING, OTHER (Specify) - Marketing functions and tasks performed by employees, including management personnel, in a specific industry not otherwise listed or classifiable in one of the above instructional programs.
BIBLIOGRAPHY


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