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THE VOCATION SELECTIONS OF INDUSTRIAL ARTS
GRADUATES OF THE SCHOOL OF EDUCATION
OLD DOMINION UNIVERSITY

A Research Paper
Presented to
The Faculty of the School of Education
Old Dominion University

In Partial Fulfillment
of the Requirements in Education 536
Problems in Education

by
Willis Howard Alexander

May 1976

ABSTRACT

Title of Research Paper: The Vocation Selections of Industrial Arts
Graduates of the School of Education, Old
Dominion University

Willis Howard Alexander, Master of Science, 1976

Research directed by: Mr. David I. Joyner
Industrial Arts Department
Graduate Advisor

This research paper identifies the occupations which were selected by graduates of the Industrial Arts Department and their reasons for selection. In addition, all respondents were asked an open question as to what advice do you think an advisor should be giving the present undergraduate student relative to present teacher needs or other related occupations.

The graduates from the period May, 1970 through May, 1975 were identified and queried by the questionnaire method which resulted in obtaining current and relevant information concerning the career options available to industrial arts graduates in the teaching profession and other occupations.

It was determined that 79 percent of the graduates responding were presently in the teaching profession with the remainder in other occupations which were identified. The majority of the graduates who selected teaching careers secured positions in the Tidewater area.

A significant number of graduates in both the teaching profession and those selecting other occupations expressed a need for more indepth undergraduate instruction relative to teaching in inner city schools,

motivation of students, maintaining classroom discipline and dealing with students psychological problems. Noteworthy was the number of respondents selecting other than teaching occupations who stated that industrial arts training plus additional specialized training qualified them for their present occupation. There appears to be a decline since 1973 in the number of teachers obtaining teaching positions within the Tidewater area. In the future a greater number of graduates will have to relocate outside of the Tidewater area to find available teaching positions.

The Industrial Arts Department at Old Dominion University, through their teaching curriculum, is supplying a need for the public school systems in the State of Virginia. Teaching positions should be available for the greater majority of the industrial arts graduates in the present and near future.

Limited data was received relative to the preparation undergraduates would need to be more **competitive** with contemporaries in industry and related fields other than the teaching profession.

This research paper was prepared by Willis H. Alexander under the direction of the instructor in Education 536, Problems in Education, and the Industrial Arts Department graduate advisor.

Date _____

Approved by:

Mr. David I. Joyner
Industrial Arts Department
Graduate Advisor

Date _____

Approved by:

Dr. Malvern L. Miller
Graduate Program Director,
Secondary Education

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CHAPTER I

INTRODUCTION

An initial phase of this research paper indicated that there was a shortage of public school industrial arts teachers in only a few of the school districts within the State of Virginia, and within the Tidewater area there was an excess. There were twenty nine Old Dominion University industrial arts graduates in May of 1975 which consisted of those individuals completing course work in the Summer and Fall semester of 1974, and this year's graduating class will be approximately the same number. Current and predicted needs indicate there are more industrial arts teachers being trained in the State of Virginia than there are teaching positions available which is due in part to the decline in our nation's economy and birth rate.

I. PURPOSE

The purpose of this paper was to determine the present vocations of those individuals who have been recently trained as public school industrial arts teachers to provide an information base to more realistically advise the present and future industrial arts undergraduates as to their future in teaching or other related occupations. The results of the study should determine: (1) the vocations previous industrial arts graduates have accepted, (2) the reasons why they accepted vocations other than teaching, (3) if there is a trend toward specific vocations, other than teaching, which the graduates have selected, and (4) an information base by which Industrial Arts Department advisors can more

realistically advise undergraduates of additional vocational selections which offer career potential.

II. SCOPE

This study includes the occupational choices of the individuals in the previous six graduating classes of the Industrial Arts Department of Old Dominion University from May, 1970 through May, 1975.

III. ASSUMPTIONS AND LIMITATIONS

It is assumed that the group of graduates queried will provide data that will be relevant to today's undergraduates and indicate trends for those students graduating in the near future.

A possible limitation to this study is the reluctance of some of the graduates to relocate to obtain teaching positions outside of the Tidewater area. Old Dominion University is located in an urban area where the majority of students reside with their parents within driving distance from the university and many own their own homes within the area.

A second limitation is that only one university's graduate group is being studied out of the four institutions which provide industrial arts teacher training within the State of Virginia. It is recognized that any results derived from this study will apply, for the most part, to the members of this one group which is second only to the Virginia Polytechnic Institute and State University in Blacksburg, Virginia, in training industrial arts teachers (Industrial, 1975).

A third limitation is the possibility that unsuccessful teachers who have graduated from the Industrial Arts Department might fail to respond to the questionnaire because of their feeling that present teacher training is inadequate. This would result in a reduction in the number of related occupations being identified.

It should be understood that many of the teacher graduates do not desire to enter the teaching profession for various reasons so it is necessary that a greater number of graduates are needed than what is actually required to fill the annual needs of the teaching profession (Regier, 1972, p. 25).

IV. SIGNIFICANCE

This study will provide undergraduates through their advisors with information relative to vocations related to industrial arts teacher training which would provide suitable career potential should the trend for fewer available teaching positions continue within the State of Virginia. There exists the possibility for curriculum revision in some areas of industrial arts education, as indicated by this study, which would better qualify industrial arts graduates to teach. Limited data was received relative to the preparation undergraduates would need to be more competitive with contemporaries in industry and related fields.

The information from this study will provide me with a better understanding of the vocations, other than a teaching career, that might be available to those individuals completing Old Dominion University's Industrial Arts education course of study. As a future industrial arts

teacher I can relate this information to potential industrial arts candidates to more fully appraise them of existing opportunities in this field of study.

V. DEFINITION OF TERMS

The terms listed within the study are interpreted to have the following meanings:

Industrial arts.

INDUSTRIAL ARTS is the study of TECHNOLOGY: the MATERIAL CULTURE--its evolution, utilization, and significance; of INDUSTRY--its organization, materials, occupations, processes and products; of the TECHNOLOGICAL ENVIRONMENT--America's industries and manmade resources, and of the problems and benefits resulting from the technological and industrial nature of society (Industrial, 1970, p. 2).

Old Dominion University. The institution is one of four in the State of Virginia which offers a four year program in industrial arts education terminating with a bachelor's degree and the state awarding the Collegiate Professional Teaching Certificate through an endorsement in industrial arts by the Board of Education.

Industrial arts teacher. An active secondary public school teacher teaching an industrial arts curriculum in either a junior or senior high school.

Industrial arts undergraduate. A student attending Old Dominion University whose declared major is in Secondary Education with a concentration in Industrial Arts Education.

CHAPTER II

REVIEW OF THE LITERATURE

Due to the present state of our economy there exists a growing surplus of public school teachers in the State of Virginia as well as throughout the nation. As recent as June, 1974 when a Richmond Times-Dispatch survey indicated that the teacher surplus in the Richmond area, in Northern Virginia and Tidewater is a little short of spectacular, the problem still exists. There are teaching jobs in some parts of the state for those who are qualified in Special Education, Reading Specialists, Industrial Arts and Agricultural areas (Richmond, 1974).

Nationwide the situation concerning industrial arts teacher vacancies is greater to that of Virginia with 28 of 48 states reporting noted a need for industrial arts teachers (Research, 1974, p. 36). In 1972, 53.1 percent of industrial arts teacher graduates nationwide entered the teaching profession while 20.4 percent were still trying to locate teaching positions. Since 1964 there has been a steady decline in the percentage of graduate industrial art teachers being able to enter classrooms with the outlook still indicating a decline (Research, 1974, p. 14, 16).

As our present economy slows its pace many of today's public school teachers are remaining with their present teaching positions to provide a stable family financial posture. School districts are not replacing many of these teachers who have retired to quit the profession because of cutbacks in state and federal funds and instead are increasing

the student to teacher ratio whenever possible. Building for a predicted increase in student population has, for the most part, been halted or cut back due to a lack of funds thus decreasing the opportunities for new teachers. One of the factors which creates openings for new teachers is that of the increase in the separation rate of experienced teachers as more school systems have financial pressures to encourage their departure in order to open jobs for beginning teachers whose entry salaries are less. Retirement benefits have been improving to encourage more teachers to leave active service at normal or early retirement (Research, 1974, p. 37).

According to the Bureau of Labor Statistics, the overall outlook for secondary school teachers indicates a highly competitive market, but employment conditions may be favorable in certain fields. Continuing teacher shortages in Mathematics, Industrial Arts, Special Education and some vocational technical subjects do exist in parts of our nation (U.S., 1974, p. 208).

There has not been a decrease in the number of graduating industrial arts teachers each year as you might expect, because the extreme lack of industrial arts teachers which existed during the 60's still maintains enrollment momentum in our teaching training institutions with little or no recruitment effort (Sawyer, 1970, p. 43).

Teachers are not the only college trained professional group who must look toward other occupations. There exists a surplus in many of the traditional professional-technical-managerial sectors according to a Southern Regional Education Board project. A surplus of seven to nine percent is indicated by 1980. Graduates will have to maintain a

flexible career attitude and be willing to take jobs generally held by non-college graduates (Graduates, 1975, p. 11).

Information received from the Supervisor of the Industrial Arts Branch of the Division of Vocational Education in Virginia reported that there existed only two industrial arts teacher vacancies, that he had knowledge of, in Virginia school districts in October, 1975 when normally an average of 35 vacancies have existed in the past (Hughes, 1975).

There is the factor that many of the industrial arts graduates will desire a higher standard of living than what teaching will allow especially if they have a family to provide for. Although a teaching position offers a certain degree of job security it still offers a low wage earning potential for a beginning professional male wage earner. Obtained from 1960 census data of 321 occupations a ranking of selected occupations of U. S. males using an index of 1959 annual median earnings found that Physicians were ranked first and secondary school teachers ranked 117th. Salesmen and sales clerks in wholesale trade were ranked 98th (Teaching, 1974).

Just which type of related occupations might be suited to industrial arts graduates? According to a theory involving the psychology of vocational choice the personality type of an industrial arts graduate is realistic. He is an individual who would most be suited to skills involving mechanical aptitude and prefers concrete to abstract problems. Some of the occupations which are suitable to this type of personality are airplane or automobile mechanic, construction inspector, electrician, filling station attendant, fish and wildlife specialist, master plumber,

power equipment operator, tree surgeon, tool designer, electronic technician, carpenter and house painter to name a few (Holland, 1966, 19, p. 20).

There are career opportunities open for industrial arts graduates besides teaching. For him to qualify usually requires additional specialized training which results in his being more flexible in his career selection.

This study has identified a portion of those occupations other than teaching which industrial arts graduates selected and will provide a base for additional studies relative to alternate career choices and possible future curriculum revisions related to career education in the present industrial arts program. The task of a school of higher learning is to continually strive to better prepare the undergraduate to assume positions in the working world that would be available at the time of his graduation and also have available the information necessary to effectively advise a student relevant to available job opportunities corresponding to his type of education.

According to Regier "College and high school students need, more than ever, to base career decisions on the best information available about the changing demands for employees. Information needs to be collected and disseminated so that society in general--especially counselors, program advisors, students, and parents--are provided with the facts about the supply-demand situation." (Regier, 1972, p. 37).

CHAPTER III

THE RESEARCH METHOD AND PROCEDURES

I. THE DESIGN

A questionnaire was constructed and mailed to each graduate of the industrial arts program who graduated within the designated time frame of the study. A personal cover letter (Appendix A) explaining the purpose of the study accompanied the questionnaire (Appendix B), included was a stamped, self addressed envelope which facilitated the return of the questionnaire.

An individual packet of freeze dried coffee was attached to each questionnaire cover letter as an appropriate attention getter to facilitate an increase in questionnaire returns. The freeze dried decaffeinated coffee packet was obtained from the Tidewater Restaurant Service, 2300 Colley Avenue, Norfolk, Virginia, at a cost of \$4.94 per 100 packets.

Industrial Arts Department letterhead stationary was used for the cover letter and the questionnaire paper was of a light tan color which together added validity and eye catching appeal to the request for response. Offset printing was utilized for both the cover letter and questionnaire.

First class postage rates for mail less than one ounce was obtained at a cost of \$34.84 to mail out and return 134 questionnaires.

The questionnaire, when constructed, was reviewed by faculty members of the Industrial Arts Department of Old Dominion University. Changes in the original content were made as appropriate. A group of

three industrial arts graduates were selected and requested to evaluate and establish the approximate time it would require to complete the questionnaire as a pilot study. Recommendations were solicited for questionnaire improvement.

A follow-up was not conducted as the questionnaire return of 70 percent was considered adequate. The questionnaire was coded to identify the recipient as a means to facilitate follow-up correspondence if it is required.

All responses were treated with complete anonymity.

II. INSTRUMENTATION

A questionnaire is the research instrument which was used to solicit data for this study. A copy of the questionnaire is contained in appendix B. The instrument was constructed in an attempt to determine which careers industrial arts graduates selected and their reasons for the selection.

III. SAMPLING

This study requested career choice data from all of the Industrial Arts Department graduates from Old Dominion University who graduated from May, 1970 through May, 1975. The names and addresses of the individual graduates were obtained from a computer read-out originating from the Alumni Association of Old Dominion University. The questionnaire was mailed to 134 graduates.

IV. DATA COLLECTION

The questionnaire was mailed to the graduates during the first part of the spring semester, January 26, 1976.

V. DATA ANALYSIS

The answers to the questions listed in the questionnaire were of the yes/no type, numbered sequence noting the priority for an individual's selection, and fill-in responses when a category response was not listed.

The data as analyzed is presented in a percentage relationship with respect to the number of questionnaires returned. Tables are utilized to portray the results of analysis.

Much of the data were obtained from answers to open ended questions. The majority of respondents failed to indicate the priority of their selected responses to individual questions, as a result, the analysis of data consisted of a compilation of responses not in order of priority.

CHAPTER IV

FINDINGS AND RESULTS

I. ANALYSIS OF THE RETURNED DATA AND FINDINGS

The return. Table I shows the percentage of returns for each graduating class year group. The overall return for the questionnaire was 70 percent. The cutoff date for returns was February 18, 1976, for the questionnaire mailed on January 26, 1976.

TABLE I

QUESTIONNAIRE RETURN FOR EACH GRADUATING CLASS YEAR GROUP

Year	Number Sent	Number Returned	Percent Returned
1970	23	12	52%
1971	15	11	73%
1972	21	16	76%
1973	25	16	64%
1974	32	25	78%
1975	<u>18</u>	<u>14</u>	78%
	134	94	

Table II indicates the percent of graduates presently teaching in public schools, teaching and working on advanced degrees in education or in education supervisory positions, also included is the percentage of graduates who are working in other occupations. It was determined that 79 percent of the graduates responding were associated with the

teaching profession and the remaining 21 percent had accepted other occupations.

TABLE II
OCCUPATION SELECTION FOR EACH GRADUATING YEAR GROUP RESPONDING

Year	Education Careers	Other Occupations
1970	67%	33%
1971	54.5%	45.5%
1972	100%	No Responses
1973	75%	19% *
1974	84%	16%
1975	78.5%	21.5%

*NOTE: One graduate 100% disabled.

II. RESULTS FROM THE RETURNED DATA

The collected data supplied information and comments from two distinct groups of industrial arts graduates. Those individuals still associated with the teaching profession and those individuals who chose other occupations initially upon graduation or after an average of 1.5 years of teaching.

The information and comments received by those individuals currently in the teaching profession will be presented first and is the result of the tabulation of responses to question 8 of the questionnaire i.e., "If you were an industrial arts undergraduate at this time, what

advice do you think your advisor should be giving you relative to present teacher needs or other related occupations." This question initiated a broad response and for the most part indicated a need for more indepth coverage in certain areas of their undergraduate training program. 88 percent of the returns from individuals currently in the teaching profession submitted comments to question 8.

The following is a listing of the comments arranged in descending order relative to the frequency of the comment:

- (23) 1. Require more indepth instruction relative to teaching in inner city schools, motivation of students, maintaining classroom discipline and dealing with students psychological problems.
- (10) 2. Have available information concerning related occupations other than teaching for industrial arts graduates.
- (8) 3. A graduate should consider relocating out of the Tidewater area to obtain a teaching position.
- (7) 4. An undergraduate should complete requirements for endorsements in all approved (federally funded) orientation and exploration courses.
- (6) 5. The counseling and advice given by the Industrial Arts Department advisors was helpful and reflected current teacher needs.
- (5) 6. A teacher needs to be well prepared and organized in his subject area including the effective management of multiple activities.
- (5) 7. The teaching profession offers a low salary to a young man who has to support a family on this one income.
- (4) 8. Prior to signing a contract to teach the new teacher should determine if adequate funds are available for supplies and needed equipment.

- (3) 9. Undergraduates should student teach for one school year.
- (3) 10. Be prepared to continue your education after graduation.
- (3) 11. Undergraduates should receive additional information to better understand the public school administrative procedures.
- (3) 12. There is a need for specialized training to effectively teach vocational trade skills offered in high school.
- (2) 13. Secondary school teaching experience should be obtained prior to commencing work on an advanced degree.
- (2) 14. Undergraduates should choose additional courses in business and/or supervision to qualify for occupations other than teaching.
- (2) 15. Be prepared to work beyond normal working hours to complete your teaching responsibilities.
- (2) 16. There is a need for a more comprehensive laboratory equipment maintenance program.
- (2) 17. Graduates could use more information relative to ideas for industrial arts course projects.
- (2) 18. A new teacher should allow for a two year trial period as the first year is the most difficult.

Comments related to only one need were not included as they were considered more of an individual nature rather than representative of the group.

Table III indicates those occupations other than teaching which past industrial arts graduates have accepted.

TABLE III

NON-EDUCATIONAL OCCUPATIONS OF INDUSTRIAL ARTS GRADUATES

1970

Governmental Administrator

Senior Program Associate with Information Center of Hampton Roads

Corrections Officer

Medical Clinic Administrator

1971

Officer, U. S. Navy

Officer, U. S. Army

Building Design Coordinator for a General Contractor

Housewife

Equipment Controller (shipbuilding industry)

1972

No responses from individuals in non-teaching occupations

1973

Officer, U. S. Navy

Coordinator, Emergency Medical Services

Forestry student (Parks and Recreation Management)

1974

Cabinetmaker and small business trainee

Computer operator

Senior systems design engineer

Assisting husband in self owned small business

1975

Electrical contractor

Welder, burner, fitter combination

Outboard motor mechanic

Comments and information relative to those graduates in occupations other than teaching were as follows: 52 percent of the individuals started teaching upon graduation but are not teaching now. They taught for an average of 1.5 years prior to selecting their present occupation.

Table IV lists the reasons why individuals who initially selected teaching as a profession changed to another occupation.

Table V reflects the reasons individuals proceeded directly into occupations other than teaching.

The following is a listing of comments received in answer to question 8 from individuals who are in occupations other than teaching. The comments are arranged in descending order relative to the frequency of the comment:

- (4) 1. Need for more indepth instruction in student related discipline problems.
- (3) 2. The undergraduate training program should contain more information relative to related occupations other than teaching.
- (3) 3. There is a need for effective and dedicated industrial arts teachers.
- (2) 4. Seek an occupational area where there is a demand.

TABLE IV
 REASONS WHY GRADUATES CHANGED FROM TEACHING
 CAREERS TO OTHER OCCUPATIONS*

Occurrence	Reason
(4)	Industrial arts training plus additional specialized training qualified me for present occupation.
(3)	Health factors.
(3)	Greater opportunity and potential for advancement.
(3)	Low teacher salary schedule.
(2)	It was the only occupation available and I needed an income.
(2)	School discipline problems.
(1)	Integration.
(1)	Assisting husband in self owned small business.
(1)	Unable to accept both teaching and administrative responsibilities.
(1)	Lack of adequate administrative support for industrial arts programs.

*NOTE: 10 individuals responding.

TABLE V
 REASONS WHY GRADUATES SELECTED OCCUPATION

OTHER THAN TEACHING *	
Occurrence	Reason
(6)	Low teacher salary schedule.
(3)	Another occupation was available.
(3)	Industrial arts training plus additional specialized training qualified me for my present occupation.
(2)	Had previous experience in the field and a degree was required for advancement.
(2)	I desire to obtain vocational trade experience to qualify for teaching in a vocational technical school.

*NOTE: 9 individual responding.

- (2) 5. More emphasis is needed to qualify undergraduates in vocational teaching positions.
- (1) 6. Consider relocating to obtain a rewarding occupation other than teaching.
- (1) 7. Preparation and organization are the most important habits a successful teacher should have.
- (1) 8. The teaching field today offers nothing to a young man who has a family to support.
- (1) 9. An undergraduate should specialize in one industrial arts area.
- (1) 10. Undergraduates should be made aware of the realities of teaching, the politics and the funding or lack of funding available.
- (1) 11. Be prepared to relocate to find an acceptable teaching position.

Of possible concern were the results of teacher positions accepted by each year's graduating class with respect to the geographical area. Table VI lists the teaching positions accepted in the Tidewater area of Virginia with respect to those positions accepted outside the area. The Tidewater area consists of Norfolk, Virginia Beach, Chesapeake, Hampton and Portsmouth. The overall percentage of teachers accepting positions within the Tidewater area was 66 percent.

TABLE VI

TEACHER POSITIONS ACCEPTED WITHIN THE TIDEWATER AREA

Year	Percentage Placed	Number Placed
1970	50%	4
1971	66%	4
1972	69%	11
1973	77%	10
1974	66%	14
1975	64%	7

CHAPTER V

SUMMARY AND RECOMMENDATIONS

I. SUMMARY

By the questionnaire method, each of the graduates of the Industrial Arts Department of Old Dominion University from May, 1970 through May, 1975 were asked what their present occupation was, what their reasons were for selecting an occupation other than teaching and if they did teach, but are not teaching now, the reasons why they quit the teaching career. All respondents were asked an open question as to what advice do you think an advisor should be giving the present undergraduate student relative to present teacher needs or other related occupations. The response was considered adequate to compile data which is considered relevant to today's industrial arts teacher graduate.

Of the graduates responding, 79 percent were associated with the teaching profession which indicates that the present industrial arts teaching training program at Old Dominion University is supplying a need for the public school systems in the State of Virginia. A total of 66 percent of the teachers accepted positions within the Tidewater area which indicates that positions are available in this metropolitan area for future graduates, but with a decline in needs since 1973.

It cannot be overlooked that 31 percent of the graduates currently teaching expressed the need for additional undergraduate training related to the control of classroom discipline, maintaining student motivation, and methods for dealing effectively with students

psychological problems.

It does not appear that individuals qualified to teach industrial arts courses are in excess for present or future needs. Positions should be available throughout the State of Virginia and in the Tidewater area. A qualified teacher should consider relocating when looking for a satisfactory teaching position.

Comments from those graduates currently teaching expressed a need to have available to undergraduates information related to their qualifications in other occupations. It was noted that for 37 percent of those individuals in occupations other than teaching their industrial arts training plus additional specialized training qualified them for their present positions. It should also be noted that 25 percent of those graduates in other occupations had previous vocational experience prior to their graduating from the industrial arts program and that their previous training related to their present occupation.

The responses from industrial arts graduates supported the occupation theory proposed by Holland in that the personality type of an industrial arts graduate is realistic. The occupations listed in Table III are mainly of the type involving mechanical aptitude and concerned with solving concrete rather than abstract problems (Holland, 1966, p. 19, 20).

II. RECOMMENDATIONS

The Industrial Arts Department undergraduate advisors should have available to them the results of this study. In this manner the advisors will have a more current information base to advise present and near-

future undergraduates of the present need for graduates in the teaching profession and the avenues of other career options open to them.

More information relative to discipline, motivation and student psychological problems as they relate to the urban classroom should be made available to the industrial arts undergraduates. All of the faculty members of the Industrial Arts Department have had previous secondary school teaching experience. Their experiences relative to these problem areas should be made more a part of the industrial arts methods courses coupled with the undergraduates experiences during their classroom observation periods which are part of Education Course 311, Educational Psychology and the Industrial Arts Education Courses 200 and 300 Seminars. The Education Course 487, Seminar in Student Teaching in The Secondary School, is a possible area for more indepth study related to routine discipline problems associated with teaching industrial arts programs in the secondary schools.

An area for future study paralleling and expanding on this study could include all of the graduates of the School of Education certified to teach in secondary schools. The results would determine if teachers in other academic areas are faced with similar problems concerning classroom discipline and student motivation.

BIBLIOGRAPHY

- "Graduates Must Change Job Attitudes," Virginia Journal of Education, September 1975, p. 11.
- Holland, John L. The Psychology of Vocation Choice. Waltham, Mass: Blaisdell Co., 1966.
- Hughes, Thomas A. Telephone interview. Supervisor Industrial Arts, Division of Vocational Education, State Department of Education, Richmond, Virginia, October 15, 1975.
- Industrial Arts Education Service. Virginia Industrial Arts Teacher Education Enrollment, 1974-1975. Richmond: State Department of Education, July 1, 1975.
- Industrial Arts for the Seventies: An Industrial Arts Guide for School Administrators in Virginia, Richmond: State Department of Education, 1970.
- Regier, Herold G. Too Many Teachers: Fact or Fiction? Bloomington, Indiana: Phi Delta Kappa Educational Foundation, 1972.
- Research on Teacher Supply and Demand in Public Schools 1973. Washington, D. C.: National Education Association-Research, 1974.
- Richmond Associated Press dispatch. The Virginian-Pilot, June 17, 1974.
- Roe, Ann. The Psychology of Occupations. New York: John Wiley and Sons, Inc., 1956.
- Sawyer, David E. "An Investigation of Selected Current Practices in the Recruitment of Industrial Arts Education Majors in the State of Virginia." Unpublished thesis, Old Dominion University, 1970.
- Super, Donald E. The Psychology of Careers. New York: Harper and Brothers, 1957.
- "Teaching As a Career," The American Federation of Teachers AFL-CIO, Bulletin No. 38, Washington, D. C., 1974
- U. S. Department of Labor Statistics. Occupational Outlook Handbook 1974-75 Edition. Bulletin No. 1785. (Washington: Government Printing Office, 1974).



APPENDIX A

department of Industrial Arts • 804-489-6461 • Norfolk, Va. 23508

Dear Mr.

As a part of my graduate work in secondary education at Old Dominion University, I am conducting an occupation study to establish which occupations were selected by industrial arts graduates of ODU and the reasons for their selection.

Please enjoy a cup of coffee, on me, as you complete the questionnaire provided which will assist me in obtaining the necessary factual data. The completion of the questionnaire should take approximately ten minutes. Your individual responses will be treated with the utmost confidentiality with no reference being made to the identity of an individual in the analysis of data.

The results of this study will provide the Industrial Arts Department undergraduate advisors more up-to-date information relative to a student's future career options in teaching or other related occupations. Approval for this study was given by my advisor, Mr. David I. Joyner, Chairman, Industrial Arts Department.

I realize that your time is valuable, but hope that you will take just a few moments to complete the enclosed questionnaire and return it to me in the stamped, addressed envelope which is provided.

Your assistance in this study will be greatly appreciated.

Sincerely yours,

Willis H. Alexander

APPENDIX B

OCCUPATION QUESTIONNAIRE

110455

Form No.

It is requested that you mark the appropriate answer, and if necessary write in the answer which best corresponds to your occupation or situation. If you have selected more than one answer to a given question kindly indicate your selection in order of importance using number 1 for the most important, 2 for the second most important, and so on. Time to complete the questionnaire is approximately 10 minutes.

1. Upon graduation from Old Dominion University did you accept a teaching position? _____ Yes, _____ No.
2. If your answer to question number 1 is Yes, are you teaching now?
_____ Yes, _____ No. If your answer is Yes, kindly proceed to question 8.
3. If your answer to question number 2 is No, how many years did you teach? _____.
4. If your answer is No to question number 1, kindly indicate the reason(s) for not accepting a teaching position.
 - _____ Low teacher salary schedule.
 - _____ Another occupation was available.
 - _____ A teaching position was available but I did not desire to relocate.
 - _____ I'm still looking for a teaching position.
 - _____ No teaching position was available in my immediate area.
 - _____ I desire to obtain vocational trade experience to qualify for teaching in a vocational technical school.
 - _____ I'm working full time on an advanced degree.
 - _____ Other (kindly specify) _____.

5. If you started teaching, but are not teaching now for what reason(s) did you stop?

_____ Health factors.

_____ Unable to accept both teaching and administrative responsibilities.

_____ School discipline problems.

_____ Low teacher salary schedule.

_____ Released because of fund cutbacks.

_____ Lack of a challenge.

_____ Other (kindly specify) _____

6. If you are not teaching now what is your present occupation?

7. Kindly indicate the reason(s) why you selected a related occupation instead of a teaching position.

_____ Had previous experience in the field and a degree was required for advancement.

_____ Industrial arts training qualified me for my present position.

_____ Industrial arts training plus additional specialized training qualified me for my present occupation.

_____ It was the only occupation available and I needed an income.

_____ Other (kindly specify) _____

8. If you were an industrial arts undergraduate at this time, what advice do you think your advisor should be giving you relative to present teacher needs or other related occupations.

PLEASE RETURN THIS QUESTIONNAIRE IN THE ENCLOSED SELF-ADDRESSED ENVELOPE TO:

Old Dominion University
Department of Industrial Arts
P. O. Box 6173
Norfolk, Virginia 23508

THANK YOU