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Description of Factors That Influenced the Ninth Grade Students' Enrollment of the Industrial Arts Department in the City of Chesapeake

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DESCRIPTION OF FACTORS THAT INFLUENCED THE NINTH GRADE
STUDENTS' ENROLLMENT OF THE INDUSTRIAL ARTS DEPARTMENT
IN THE CITY OF CHESAPEAKE

A Research Project
Presented to
Dr. John M. Ritz
Program Advisor
Old Dominion University

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

by
Oliver Cromwell Holley, Jr.
August 1981

APPROVAL SHEET

This research paper was prepared by Oliver Cromwell Holley, Jr. under the direction of Dr. John M. Ritz 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 Education.

APPROVED BY: John M. Ritz 8-9-81
Dr. John M. Ritz Date
Advisor

David Payne 8-1-81
Graduate Program Director Date

ACKNOWLEDMENTS

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Finally, a hardy deep thanks goes to the researcher's wife Carolyn, daughter Benita, and son Lamark for their sacrifices, understanding, support, and contributions that made this study possible.

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CHAPTER I

INTRODUCTION

Our complex and changing society has caused most all adults to wish they had prepared themselves better for their future. They see the need to prepare their children for situations they may encounter in their future also.

Educators can see more and more need for a student to get a complete education. Industrial arts should be part of every boy and girl's complete education program. Educators need to know the areas that students feel they need or should have to provide them with a complete education. Being unaware of why they do not enroll in a department may cause unnecessary courses to be taught in a school system or even the loss of programs due to low enrollment.

Hopefully, the result of this study will enlighten the investigator about areas of concerns involving enrollment in the industrial arts department in the city of Chesapeake. The investigator will be prepared to share the findings and data with local administrators for improvement of course offerings or improving enrollment of the industrial arts department.

STATEMENT OF PROBLEM

The problem of this study was to determine some reasons causing ninth grade school students in the city of Chesapeake not to enroll in an industrial arts class. Emphasis will be placed on girls' enrollment within the department or non entry. The study was based upon students opinion, as determined by means of a survey questionnaire.

RESEARCH QUESTIONS

The purpose of this study was to determine why ninth graders chose not to enroll for an industrial arts class. The following questions gave guidance for the investigator to design a questionnaire.

1. Is the decision primarily made by the student?
2. Are there external influences:
 - a. peer pressure?
 - b. parental advice?
 - c. school guidance?
3. Has the student planned to enroll later?
4. Is the decision a temporary one?

A copy of the design questionnaire will be found in the appendix section of this study.

BACKGROUND AND SIGNIFICANCE

The passage of the Smith-Hughes law, in the early twentieth century, has increased the popularity of the indus-

tial arts movement. Due to the passage of this law the responsibility for vocational education was shifted to separate schools, enabling industrial arts to become more of general education.¹

According to Giachino and Gallington:

Industrial arts is a phase of general education which serves to familiarize the students with the tools, product, processes and occupations of industry as well as the social and economic phenomena of the technological world in which they live and work. It is considered a part of general education, not only because it supports or fulfills many of the fundamental concepts of general education, but because it develops greater understanding of the significance of industry in the world today. Since industry is an element of our basic culture, industrial arts assumes the responsibility of enhancing and enriching the experiences of young people in this important phase of our industrial world.²

The significance of this study is to reveal influences which may dominate ninth grade school students in Chesapeake not to enroll in an industrial arts department.

LIMITATIONS

There are limitations to most research studies. Below are some limitations of this study:

1. It is possible that some of the students, due to their immaturity, did not give serious thought to the questionnaire and answered the questions haphazardly.
2. The validity of this study may be limited, due to the lack of control over the administering of the questionnaire in the classes selected for this study.
3. The questionnaire was limited to one school system.

ASSUMPTIONS

The assumptions of the investigator are:

1. The school system, involved in the study, would be able to provide a better industrial arts department knowing the areas of wants and needs of the students as they see them.
2. Teachers and local school administrators together could provide the course(s) in their school that would increase both boys and girls' enrollment in the industrial arts department.
3. Students who are involved in the survey knows something about the industrial arts department.

PROCEDURES

The investigator's procedures for conducting this study were to:

1. choose a problem.
2. request permission from the Chesapeake School Administration to conduct this study.
3. design a questionnaire for the students involved in the study.
4. distribute the instrument to the five Chesapeake schools English Department for administering to ninth graders.
5. collect, compile and analyze the data for use in the study.

DEFINITION OF TERMS

The investigator feels that most of the terms within this study will, to the reader, convey the meaning or understanding as intended. Although the investigator would like to define four terms that maybe misunderstood.

According to the American Vocational Association
(1959):

Industrial arts is instructional shopwork which provides for all youth sound educational experiences that contribute to the satisfaction of their purposes, needs and wants. It is an integral part of the general education program of all youth. It offers those learning experiences which assist boys and girls to understand the the industrial and technical aspects of life today. It is a curriculum area that makes a realistic contribution to life adjustment education. It shares with other areas of the school, the responsibility for promoting the optimum development of the good citizen.

Independent factors - influences which the student was held responsible for when making the decision.

External factors - outside influences on the student's decision

Accelerated class - classes rated above average

Average class - a basic class

SUMMARY

The investigator, in this chapter, has attempted to determine by assessing students opinion as to what prevent ninth graders in the Chesapeake Public Schools from enrolling in the industrial arts department. The investigator feels that this study is important to see why more students do not consider industrial arts as part of their total educational program.

As we have seen within recent years areas such as industrial arts, vocational and technical education all have become great concern of educational program planners. The

society in which we live has caused the preparation to become greatly considered as one of the most important functions of education in some school systems but some have not been dragging their feet. The demands of our increasing technological society has placed the need for trained workers to become extremely important. Since all worthwhile occupations require some training and a number of them demand years of planned education and skills, we need to start at least in the ninth grade, hopefully much earlier.

Finally, this study hopes to determine some of the reasons for the low enrollment of girls in the industrial arts department. Since we see more females having to maintain an apartment or house within their lifetime, various courses in this department could make their lives much easier. They could save more money from minor fix-up and understand when they are being ripped off.

CHAPTER II

REVIEW OF LITERATURE

The problem of this study was to determine some reasons causing ninth grade high school students in the city of Chesapeake not to enroll in an industrial arts class. The study was based upon students' opinions as determined by means of a survey questionnaire. Emphasis will be placed on the relationship of girls enrollment within the industrial arts department on the ninth grade level.

HISTORY OF INDUSTRIAL ARTS

Roy W. Roberts points out that during the last two decades of the nineteenth century education in the practical arts came to the forefront. Practical arts came into being because of the insistence of some educators that handwork and artistic modeling were as much of general culture as mathematics and foreign languages. Educators indicated that education in the practical arts had both a broadening and humanizing effect and contributed to the development of the individual as a whole. It was pointed out that the practical arts in education is not designed to prepare a boy or girl for a vocation but to provide them with general knowledge,

skills, and attitudes to enable them to find a degree of satisfaction in everyday life and meet their responsibilities as a citizen.

Practical arts was also known as manual training. Some of the manual trained educators in the early twentieth century objected to the undue emphasis on skill and the formalized instruction of the Russian, sloyd, and arts and crafts movements. These educators suggested that the so called manual training courses should place more attention on a study of the industrial processes that operate in transforming raw materials into usable products. An instructor by the name of Charles R. Richards of Teachers College, Columbia University in October, 1904 suggested the term industrial arts be used instead of practical arts or manual training. Five years later the Dean of the same college, James E. Russell in 1909 proposed a course for industrial arts.

The passage of the Smith-Hughes law has increased the popularity in the industrial arts movement. The law shifted responsibility for vocational education to separate schools and classes, freeing industrial arts from this responsibility and enabling the industrial arts educators to devote their efforts to the aims of general education during the early years of the 1900's. In some areas the term industrial arts has come into general use, and industrial arts courses are offered in both elementary and secondary schools throughout the nation.³

PRACTICAL ARTS INSTRUCTION

Rupert N. Evans of the University of Illinois at Urban-Champaign and Edwin L. Herr of the Pennsylvania State University referred to industrial arts and home economics as practical arts. These programs in the past and now are taken by a sizable majority of boys and girls. Industrial arts is being taken by boys and girls take home economics. When these courses are taken this way, individuals are completely overlooking the dual role of the homemaker and wage earner which is expected of a great majority of women and more and more men.

The revision of the curriculum in industrial arts has in some respects gone further than some of the other areas in education. The industrial arts programs have emphasized the production of goods and neglected the fact that this type of production is becoming less important in our economy while services are gaining rapidly. But seeing the needs of the dual role of the homemaker and wage earner, industrial arts curriculum has been revised.

The courses of industrial arts instruction occurs at the elementary school level, junior high school level and above. During the past, through a process of segregation on the basis of sex, teachers of this subject artificially restricted the range of activities with which a student could become acquainted. With the increased number of female wage earners continuing to grow, all women, as well as men, need to understand the process by which they can find a degree of

satisfaction in everyday life and meet their responsibilities and by which goods and services are produced.⁴

DISCRIMINATION CONTINUES

Discrimination of girls in the latter 1800's and the early 1900's existed in the practical arts (as was called at that time) and then carried over to industrial arts. Discrimination of girls continues still when it comes to taking industrial arts in some localities. According to a N. E. A. News Service report, girls are still being discouraged from taking vocational courses which lead to high paying jobs. The report was a study prepared for the U.S. Office of Education.

The report was entitled, "The Study of Sex Equity in Vocational Education." The research involved high schools staff in the prevocational areas as well as those in the vocational areas. Highlights of this report included the following:

1. There were over 60 percent of state and local school staffs questioned about discrimination of girls. They reported that practices which discourage females from entering non-traditional areas continues. They indicated that "unwritten rules" that such courses as automechanics are for boys and home economics for girls.
2. There were evidence that only a small number of state agencies have taken any corrective action to overcome the inequities and few schools studies showed any vital successful efforts to promote equity in schools.
3. Despite the influence of outside factors on young people, facts are clear that schools can still help

determine the type of courses they choose. The schools that put the most effort into promoting sex equity also have the greatest number of students enrolled in their non-traditional courses.⁵

The National Education Association believes that a goal of public education should be to provide all individuals from preschool through adulthood, opportunities to become effective, productive citizens. Their educational program should include programs in awareness and exploration.⁶

SUMMARY

Evidence shows that girls, from the beginning of the term of industrial arts to the late 1900's, are being discouraged from taking non-traditional courses while in school.

CHAPTER III

METHODS AND PROCEDURES

This study was designed to determine some factors causing ninth grade students in the city of Chesapeake not to enroll in an industrial arts class. The investigator plans to use the findings to help increase the enrollment of both boys and girls in the industrial arts department.

POPULATION OF STUDY

The sample population for this study was comprised of ninth grade students attending the five schools in the city of Chesapeake: (1) Deep Creek Junior High, (2) Great Bridge Junior High, (3) Indian River Junior High, (4) Oscar F. Smith High and (5) Western Branch High. At each of the above schools, two English classes were randomly selected for participation in this study, one accelerated and one average. The English classes were chosen in order to reach a larger number of ninth grade students since English is a required subject.

INSTRUMENT

A questionnaire, designed by the investigator, was utilized to collect data as the basis for this survey research.

Good and Scates states, "The questionnaire is a major instrument for data gathering in descriptive survey, and is used to secure information from varied and widely scattered sources."⁷ According to Mouly, the greater coverage which the use of a questionnaire affords "makes for greater validity in the results, through promoting the selection of a larger and more representative sample."⁸

The students were asked to indicate the name of their school and sex. The first question inquired whether the student had enrolled in an industrial arts class on the ninth grade level. Those students who gave a negative response to this item were asked to complete the remaining portion of the questionnaire. The second question offered ten possible reasons, A-J, why a student might not have enrolled in an industrial arts class; the student was permitted to check off more than one of the ten items. The last question attempted to determine whether there was significant student demand for courses other than the ones already offered.

The instrument was purposely kept brief and quite simple for two reasons: (1) the age of the sample population was taken into consideration, and (2) to insure a speedy return of the questionnaire. The investigator was determined not to burden teachers and students with a complex, time-consuming survey.

METHOD OF PROCEDURE

In order to carry out this study in the city of Chesapeake, it was necessary to secure permission from the Director of Research and Pupil Personnel Services of Chesapeake Public Schools. A letter granting permission was written. This letter had to be presented to the principals of the five schools involved in the survey. A letter was written to the teachers explaining the purpose of the survey and requesting their assistance with it. Along with the letters, the teachers received the questionnaires, which the students were asked to complete. A copy of all letters involved in this study are found in the appendix section of this study.

SUMMARY

The survey being a cross section sampling population of the Chesapeake school system and the questionnaire being brief and simple, the investigator found the tabulation to be very speedy and easy. The information provided from the questionnaire gave all the data necessary to complete the findings section which is chapter four. A copy of the instrument which is a questionnaire type of survey will be found in the appendix.

CHAPTER IV

PRESENTATION OF FINDINGS

The findings that will be presented in this chapter are the results of the survey questionnaire administered to the ninth grade students in the junior and senior high schools housing ninth graders in the City of Chesapeake. The findings have been analyzed on the basis of sex, ability groups and individual schools.

Indicated in Table 1, two-hundred and thirty-two respondents participated in the study; 111 males and 121 females. In the accelerated group, seventy-six percent of the boys and one-hundred percent of the girls did not enroll in an industrial arts class, while in the average group, the percentages were sixty for boys and ninety-one for girls. It is therefore apparent, that the average students of both sexes demonstrate a greater degree of interest in an industrial arts class.

Table 1

Respondents by Ability Group and Sex

ABILITY GROUP	MALES					FEMALES				
	Total	Presently Enrolled				Total	Presently Enrolled			
		Yes	Per- cent	No	Per- cent		Yes	Per- cent	No	Per- cent
Accelerated	54	13	24	41	76	74	0	0	74	100
Average	57	23	40	34	60	.47	4	9	43	91
Total	111	36	64	75	136	121	4	9	117	191

The purpose of item A (Table 2) was to inquire whether the student was merely postponing enrollment. The purpose of items B, C, G, and I were to determine to what extent the student was responsible for the decision not to enroll in an industrial arts class on the ninth grade level. The investigator grouped items B, C, G and I as "independent factors". Items D, E, F, and H attempted to determine whether external influences, namely teachers, counselors and/or parents were responsible for the student's decision; item H was whether there was peer influence. Items D, E, F and H were termed by the investigator as "external factors"- outside influences on the student's decision. Item J was used to inquire the feeling of both boys and girls about girls taking an industrial arts course.

One-hundred and ninety-two students representing eighty - three percent of the sample population indicated that they had not enrolled in an industrial arts class and they completed, therefore, number two of the questionnaire (Appendix C). It is evident from Table 2 that only a small number of respondents are planning to enroll in an industrial arts class later, item A. The investigator noticed that the ninth graders may not have known what they wanted for the next year. One-hundred and thirty-eight students representing sixty percent of the sample population were in their last year in the junior high building and would be going to the high school. They were not sure of what would be offered or expected. One-hundred and seventeen respondents stated that they were unable to

enroll in an industrial arts class, due to scheduling conflicts, item C on the questionnaire. Items B and G gathered an almost equal number of responses. These two items dealt with the somewhat public image of industrial arts, not knowing much about the area. Seventy-three students representing thirty-two percent of the sample population, of which forty-nine respondents were girls, apparently apprehensive about the level of difficulty in the area of industrial arts, item I. Twenty-three respondents felt that parental advice was a cause for the decision not to enroll in an industrial arts class, item F. Item H was chosen by students to indicate peer influence. The least influential group in the student's decision were counselors and teachers. Only seven responses of the two-hundred and thirty-two felt that girls should not take an industrial arts course, three boys and four girls, item J. The study showed that the "independent factors," as defined on page five far outweighed the influence of "external factors" on the student's decision.

Table 2

Reasons For Not Enrolling in an
Industrial Arts Class, by Sex

No. of Responses	Items		Sex	
			M	F
16	A	I plan to take an industrial arts course later.	11	5
22	B	I need more information about industrial arts courses that are offered in my school.	8	14
117	C	I did not have room in my schedule.	50	67
3	D	My teacher advised me not to take an industrial arts course.	1	2
4	E	My counselor advised me not to take an industrial arts course.	1	3
23	F	My parents did not want me to take an industrial arts course.	9	14
14	G	I think industrial arts courses are too difficult.	5	9
16	H	I have no friends taking an industrial arts course.	5	11
73	I	I cannot see how an industrial arts course can help me in life.	24	49
7	J	I believe girls should <u>not</u> take an industrial arts course.	3	4

In Table 3, items C and I were the two highest ranking responses for both the accelerated and the average students. The high response to item C, not having room in their schedule give reason to check the methods of arranging schedules. Responses to item I, industrial arts cannot help me, ranked second with a large percent representing girls' responses. The fourth ranking item was item B, need more information about industrial arts. Accelerated students, as could be expected, responded to item F, concerning parental advice, causing it to rank third among the ten choices. Items D and E, ranking last among the ten choices, received very little responses from either group. Ranking ninth and tenth, E received four responses from two-hundred and thirty-two respondents and D received only three responses. This is evidence that counselors and teachers had very little input on the sample population not to enroll in an industrial arts class. The low response to item A, plan to take an industrial arts course later, leaves the investigator to believe that the students really did not know what to expect to take when leaving the junior high and moving to the high school the next year. Item A ranked sixth. The final independent factor, item G, ranked seventh. The item dealt with industrial arts being too hard, with the average group giving the greatest percentage of responses.

Within the grouping "external factors", peer influence, item H ranked fifth, sixteen responses of the total received.

Table 3

Rank-Order of Reasons Not to Enroll in an Industrial
Arts Class, by Ability Group

Rank Order	No. of Resp.	Reasons	Accelerated		Average	
			Rank Order	No. of Responses	Rank Order	No. of Responses
1	117	C Did not have room in schedule	1	77	1	40
2	73	I Industrial arts cannot help me	2	52	2	21
3	23	F Parents advised against	3	15	6	8
4	22	B Need more information	4	11	4	11
5	16	H No friends are taking an industrial arts class	5	9	7	7
6	16	A Plan to take a course later	6	4	3	12
7	14	G Too difficult	7	4	5	10
8	7	J Girls should not take industrial arts	8	2	8	5
9	4	E Counselor advised against	9	2	9	2
10	3	D Teacher advised against	10	1	10	2

Item J had only seven respondents out of two-hundred and thirty-two of which one-hundred and twenty-one were girls. The question read, I believe girls should not take industrial arts courses.

Only those respondents who did not enroll in an industrial arts class were requested to answer number three of the questionnaire. Fifteen responded to the Yes, and one-hundred and seventy-nine responded to the No part of the question. The purpose of this question was to assess the need for any additional industrial arts classes in their school. The result was only eight courses named, and they will be offered to those students in their next grade level in most cases.

The evidence in Table 4 indicated that a greater number of the accelerated groups chose not to enroll in an industrial arts class than the average groups. Ninety percent of the respondents did not enroll of the accelerated groups and only seventy-four percent of the average groups. Table four will show the number and percentage of respondents not enrolled in industrial arts classes by school and ability groups. These comparisons were made between accelerated English classes and average classes in each school. Oscar Smith High has more accelerated students than Western Branch High, but Western Branch High has more average students enrolled than Oscar Smith High School. Deep Creek Junior High ranked first, Great Bridge Junior High second, and Indian River Junior High

Table 4

Number and Percentage of Respondents
Not Enrolled in Industrial Arts Classes,
by School and Ability Group

S C H O O L S	Total			Accelerated			Average		
	Responses	Not Enrolled	Percentage	Responses	Not Enrolled	Percentage	Responses	Not Enrolled	Percentage
Deep Creek Jr. High	45	36	8	26	20	77	19	16	84
Great Bridge Jr. High	51	39	77	22	19	87	29	20	70
Indian River Jr. High	39	30	77	20	19	95	19	11	58
Oscar Smith High	54	50	93	32	29	91	22	21	95
Western Branch High	43	37	86	28	28	100	15	9	6
Total	232	192	83	128	115	90	104	77	74

third for the accelerated ability groups and for the average groups, Indian River Junior High ranked first, Great Bridge Junior High ranked second and Deep Creek Junior High third.

SUMMARY

It appears that item C, I did not have room in my schedule, should be the first major factor that the industrial arts staff and administrators should undertake to improve enrollment in industrial arts. The second major concern should be item I, I cannot see how an industrial arts course can help me in life.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

SUMMARY

This study sought to determine some factors causing ninth grade students in the City of Chesapeake not to enroll in an industrial arts class. Reasons for girls not enrolling were also sought. The intent of carrying out this study was to remove any factor(s) or to implement modifications which would bring about increased student interest, both boys and girls in the industrial arts department.

The sample population was comprised of two English classes from each of the three junior high schools housing ninth graders and the two high schools housing ninth graders in the City of Chesapeake. The study was based on a survey questionnaire distributed to participating students. The questionnaire attempted to determine whether the students acted independently, or whether external influences played a role in their decision.

Finally, the study attempted to assess student demand for the introduction of additional industrial arts classes in their school curriculum.

CONCLUSIONS

The study found that eighty-three percent of the sample population did not choose an industrial arts class in the ninth grade. This decision was primarily made by the student him or herself. Fifty-one percent of the respondents indicated that they were unable to schedule an industrial arts class in their ninth grade curriculum. This points to a constant problem which the institution of the modern secondary school faces. Because of the ever-expanding curricular offerings, the student is unfairly forced into the predicament of making some hard choices. As a result, industrial arts enrollments may suffer.

In comparison to "independent factors", the "external factors" appeared to have a much weaker influence upon the student's decision. Within the grouping of "external factors", parental advice was most significant, followed by peer influence; school counselors, and teacher advice.

The idea that more males enroll in industrial arts classes than females was substantiated in this investigation. The findings from the survey showed that thirty-six percent of the males, as opposed to nine percent of the females enrolled in an industrial arts class.

RECOMMENDATIONS

As the result of this study, the investigator recommends the following :

1. Information should periodically be presented utilizing a variety of media to inform parents, students and the community about the importance of at least one basic industrial arts class as part of every boy and girl's curriculum.
2. School administrators should study the feasibility of developing more flexible and open schedules to be used in secondary schools.
3. Industrial arts courses on the high school level should be presented at all junior high schools for the purpose of exposing the pupils to the offerings at the high school and the roles they could play in their lives.
4. Industrial arts educators should develop in their students an awareness of the enhanced career possibilities for them and their friends, with skills found in studying industrial arts.
5. Special effort should be made to attract the accelerated student.
6. The industrial arts department in each school should meet with guidance personnel and school administrators on a regular basis to convey to them the importance of a strong industrial arts program.
7. At least one industrial arts course should be made a requirement for all students before graduating from junior and senior high school.

FOOTNOTES

FOOTNOTES

¹Roy W. Roberts, Vocational and Practical Arts Education (New York: Harper and Row, Publishers, 1971), P. 61.

²Joseph W. Giachino and Rulp O. Gallington, Course Construction in Industrial Arts, Vocational and Technical Education (Illinois: American Technical Society, 1977), PP. 32-33.

³Roy W. Roberts, Vocational and Practical Arts Education (New York: Harper and Row, Publishers, 1971), PP. 45 & 61.

⁴Rupert N. Evans and Edwin L. Herr, Foundations of Vocational Education (Ohio: Charles E. Merrill Publishing Company, 1978), P. 55.

⁵"Discrimination in Vocational Education Continues," Virginia Education, October 1980, P. 10.

⁶"NEA Resolution 78-23: Career Education," Today's Education, April/May 1979, P. 76.

⁷Carter V. Good and Douglas E. Scates, Methods of Research (New York: Appleton-Century Crofts, Inc., 1954), P. 606.

⁸George J. Mouly, The Science of Educational Research (New York: American Book Company, 1963), P. 240.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Ericson, Emanuel E. and Seefeld, Kermit. Teaching The Industrial Arts. Peoria: Charles A. Bennett Co., Inc., 1960.
- Evans, Rupert N. and Herr, Edwin L. Foundations of Vocational Education. Ohio: Charles E. Merrill Publishing Company, 1978.
- Giachine, Joseph W. and Gallington, Rulp O. Course Construction in Industrial Arts, Vocational and Technical Education. Illinois: American Technical Society, 1977.
- Good, Carter V. and Scates, Douglas E. Methods of Research. New York: Appleton-Century Crofts, Inc., 1954.
- Mouly, George J. The Science of Education Research. New York: American Book Company, 1963.
- Roberts, Roy W. Vocational and Practical Arts Education. New York: Harper and Row, Publish, 1971.
- Today's Education. April/May 1979.
- Virginia Education, October 1980.

APPENDIX A

Permission to Conduct Project



CS-162

CHESAPEAKE PUBLIC SCHOOLS
RESEARCH DEPARTMENT
300 CEDAR ROAD P.O. BOX 15204
CHESAPEAKE, VIRGINIA 23320

To: Certain Secondary
Principals

Date: April 8, 1981

Subject: **Research Project:**

Mr. Oliver C. Holley, Jr. has been granted permission to conduct his research project in our school system.

He will be contacting you very soon and I am herewith requesting that you give him your cooperation and support relative to his activities.

From: 

APPENDIX B

Letter to Colleague

One of the Chesapeake Public Schools
WESTERN BRANCH HIGH SCHOOL

4222 Terry Drive
Chesapeake, Virginia 23321



April 6, 1981

Dear Colleague:

I am conducting a study to investigate factors that influence ninth grade student enrollment in Industrial Arts.

Your cooperation is essential to the success of this study and would be very much appreciated.

Sincerely,

A handwritten signature in cursive script, reading "Oliver C. Holley, Jr.", is written over a horizontal line.

Oliver C. Holley, Jr.

APPENDIX C

Survey Instrument

SCHOOL _____

SEX: MALE _____ FEMALE _____

PLEASE DO NOT WRITE OR SIGN YOUR NAME.

Please answer the following questions by placing a check () in the space or spaces that are provided.

1. Are you now enrolled in an industrial arts class?

YES _____ NO _____

Do NOT answer questions 2 or 3 if your answer was YES.

2. Please check below the reason (or reasons) why you did not take an industrial arts course.

__A. I plan to take an industrial arts course later.

__B. I need more information about industrial arts courses that are offered in my school.

__C. I did not have room in my schedule.

__D. My teacher advised me not to take an industrial arts course.

__E. My counselor advised me not to take an industrial arts course.

__F. My parents did not want me to take an industrial arts course.

__G. I think industrial arts courses are too difficult.

__H. I have no friends taking an industrial arts course.

__I. I cannot see how an industrial arts course can help me in life.

__J. I believe girls should not take an industrial arts course.

3. Is there an industrial arts course that is not taught in your school that you would like to see taught?

_____Yes _____No

If your answer was yes to number 3, indicate the name:
