

STATUS OF INDUSTRIAL ARTS IN OKLAHOMA
JUNIOR AND SENIOR HIGH SCHOOLS

By

DAVID WAYNE DAY

Bachelor of Science in Education

Oklahoma State University

Stillwater, Oklahoma

1981

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
MASTER OF SCIENCE
December, 1983

Thesis

1983

D273s

Cap. 2



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Thesis Approved:

John B. Tate

Thesis Adviser

Craig W. Anderson

Jerry H. Davis

Norman N. Durbin

Dean of Graduate College

PREFACE

This study is concerned with the status of industrial arts in Oklahoma junior and senior high schools. The purpose is to provide a descriptive analysis to administrators, teachers, and students who are concerned about the industrial arts programs.

The author wishes to express his sincere appreciation to his major advisers, Dr. John B. Tate and Dr. Harold B. Polk for their guidance, assistance, and patience throughout this study. It has been due to their counsel that this project has become a true learning experience.

Special recognition is extended to Dr. Craig Anderson and Dr. Cecil Dugger for their commitment, effort and time spent in the assistance leading to this study. Without their invaluable assistance, the study would not have transpired to its present level.

The author also wishes to thank the school administrators and teachers who took the time to answer the questions necessary to provide the material for this study.

Finally, special gratitude is expressed to my wife, Patti, and to our children Michael and Heather, for their understanding, encouragement, and many sacrifices necessary to make this study possible.

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CHAPTER I

INTRODUCTION

Manual arts has come along way since it was first introduced in America back in the late 1800's. After about the first thirty years of progress, new ideas and concepts were added and the name was changed to what we refer to as "industrial arts."

Before the rapid growth of our technology man and woman depended on their own skills to make a living by building their own homes, growing their own food, and making their own clothes. Technology has changed all that; people are specializing in one field so they can buy products that other specialists make. Because of this type of specialization our "children have little opportunity to watch repair men at work or to learn the essentials of construction by working with their parents."¹ As a result of this, there need to be some sort of training for the youth of the future to help them deal with mechanical breakdowns and wisely use and select the products of industry, especially around the home.

It has become the task of the public schools to supply the training needed to keep the young people from having their hands shackled to common life situations resulting from the fast development of technology.

It is for these reasons that this author feels a need to express the stature of industrial arts.

¹Newkirk, Lewis V., The Industrial Arts Program, The Macmillan Company, New York, 1948, pp. 5.

Need for the Study

Industrial arts is facing its toughest challenge since it was first implemented into the school systems of America. The growth of vocational technical schools is hurting the industrial arts programs. This is not to say that vocational schools will replace the public school system as a whole (vocational schools do not offer academic subjects, i.e. reading, writing, arithmetic, etc.). Instead, vocational schools offer financial relief to the public school system by purchasing modern equipment (with government money) for the vo-tech classrooms. Vocational schools' purpose, unlike public schools, are designed to train their students to meet the needs of industry. This means that the young and old in our society can be trained efficiently enough to become marketable commodities. Some administrators feel that since the vocational schools can offer such intense training in many diverse fields at a cheaper cost there would not be a need for the industrial arts program in the high schools and therefore be eliminated.

It is the author's opinion that the industrial arts programs offered in the public schools are not a training program as is the vocational training, therefore the courses offered in the high schools not only gives the industrial minded student a basic understanding and knowledge of all the different type of industry, equipment, skills, and job requirements to fulfill each job, it also gives the general student who takes this course (due to personal interest) the same valuable information. Along with this knowledge the industrial arts student also learns the basic hands-on-experiences that goes with each job. Because of these attributes, industrial arts also has the potential to serve general education as an exploratory area while at the same time serve

vocational education as preparatory education--"Every field of education needs status surveys if it is to grow and meet the needs and the demands of the changing world."² Studies of this nature provide valuable information and data to administrators so that it may demonstrate trends and make predictions toward the future of industrial arts.

Statement of the Problem

Because of the lack of information on the status of industrial arts programs this study was considered appropriate.

The problem which led to this study was identified in an article that dealt with the "supply and demand of industrial arts teachers in the fifty states, Puerto Rico, the Virgin Islands, and Guam."³

In dealing with the status of the industrial arts programs in the Oklahoma high schools, the writer has attempted to investigate the status of industrial arts programs. These findings can then be used to help teachers and prospective teachers who are contemplating a career in industrial arts education by giving them an idea on what courses are being taught in the junior and senior high schools of Oklahoma. This study will also show what courses are needed to keep industrial arts at the same level with our fast and changing society.

²Cassidy, Frank E., The Status of Industrial Education in Arkansas," (unpublished master's thesis, Oklahoma State University, 1949).

³Miller, Rex, "Industrial Arts Teachers: Supply and Demand," Industrial Education, January 1983, pp. 16-17.

Purpose

The purpose of this study was intended to determine the status of industrial arts programs in the junior and senior high schools in Oklahoma and to make the data available to superintendents, teachers, administrators, future industrial arts teachers, and school board members.

Questions

This study was used to adequately answer the following questions:

1. How many industrial art programs closed in 1982?
2. Monetary value of machines and equipment?
3. Length of professional experience of teachers?
4. Size of industrial art classes?
5. Teacher workloads?
6. Monetary value of mechanical drawing equipment?
7. Qualification of teachers?
8. Name of industrial arts courses?
9. Grade level at which industrial arts courses are offered?
10. Total number professional years teaching industrial arts?
11. Is there a need for more industrial arts teachers?

Assumptions

The design of this study was made on the following assumptions:

1. That the individuals selected in this study responded honestly and sincerely to the questionnaire.
2. The individuals in the sample are representative of industrial arts teachers as a whole in the state of Oklahoma.

3. That the procedure and questions used in this study be adequate in determining the status of industrial arts programs in Oklahoma high schools.
4. That the questions were evaluated in the same manner for each questionnaire returned.

Scope and Limitations of the Study

1. The study is limited to industrial arts in Oklahoma, junior and senior high schools.
2. The schools selected for the study represented only a portion of the total number of schools in Oklahoma.

Definition of Terms

Industrial Arts: "Emphasizes construction with tools and machines, understanding of industry, drawing and design, consumer education, handy-man abilities, and crafts for leisure."⁴

High Schools: Any school that has at least tenth, eleventh and twelfth grades.

Junior High Schools: Any school that has seventh, eighth, and ninth grades.

Industrial Arts programs: A series of courses being taught through the industrial arts department, i.e. (woods, metals, drafting).

Manual Arts: An earlier term used to discuss graphics, mechanics, textiles, bookmaking, and the culinary arts.⁵

⁴Newkirk, Lewis V., The Industrial Arts Program, The Macmillan Company, New York, 1948.

⁵Warner, William E., Policies in Industrial Arts Education, The Ohio State University Press, Columbus, Ohio, 1928.

Vocational school: An institution that trains people for a specific industrial job.

CHAPTER II

REVIEW OF LITERATURE

A search for studies that were directly related to the status of industrial arts in Oklahoma high schools revealed that very few had been written for the state of Oklahoma, and those that had been written were written in the 1930-1940 era as a master's thesis. However, there were studies researched on the status of Industrial arts in other states. In 1946, H. C. Tinkle conducted a survey of the status of Industrial Arts in Oklahoma High Schools.¹ Tinkle's study was divided into three parts. The first part dealt with the approved junior high schools of Oklahoma 1945-46. The second part of his study included the North Central Association of colleges and secondary schools. Part three dealt with the study of all high schools which offered industrial arts but did not belong to the North Central Association or an approved junior high school.

The data and information that was received was analyzed and tabulated into tables for the convenience of producing the results of Tinkle's findings. By sending out inquiry forms to the different groups of high schools, his study concluded that there were seventy-one junior high schools and eighty-two north central high schools that offered industrial arts education. Tinkle's study also demonstrated that out of 309

¹Tinkle, Henry C., "The Status of Industrial Arts in Oklahoma High Schools in 1946," (unpublished thesis, Oklahoma State University, 1946).

schools industrial arts was taught by 409 teachers which included superintendents, principals, and women.

Simmons produced a study that dealt with the status of industrial arts in South Dakota². "By using two methods, historical and data collection," Simmons was able to collect enough data to facilitate the use of his study. His study concluded that out of 310 high schools in South Dakota, only 89 schools had industrial arts in the school curriculum, and of the 89 schools 49 belonged to the north central association while the other forty-nine were state accredited.

In 1949 Cassidy produced a study of similar nature in the state of Arkansas.³ By sending out questionnaires and collecting data from the annual reports filed in the office of the State Department of Education in Arkansas, the author was able to find the information required to complete the study. Cassidy's study consisted of the programs offered in the Arkansas schools: industrial arts, trade and industrial education, and certification requirements for industrial arts teachers. Cassidy discovered that Arkansas had no separate certification plan for industrial arts teachers, and persons that qualified for vocational permits were permitted to teach industrial arts. Cassidy recommends that there needs to be a separate certification plan for industrial arts teachers and that there should be at least one high school inspector on the state inspection staff who has had some training in industrial arts. Furthermore, his findings showed that there were only four state supported institutions and one junior college in which industrial education

²Simmons, Darrell D., "The Status of Industrial Arts in the State of South Dakota 1948-1949," (unpublished master's thesis, Oklahoma State University, 1949).

³Cassidy, Frank E., "The Status of Industrial Education in Arkansas," (unpublished master's thesis, Oklahoma State University, 1949).

courses were offered, along with two private institutions.

All three of these studies showed an enormous need to keep abreast of the programs and condition of the industrial arts programs. Furthermore the studies showed that to keep the high quality of teachers and adequate number of students in these programs, educators must keep updating the industrial arts programs or the programs may become obsolete. Educators should develop a curriculum for students wanting a career as industrial arts teachers. This would ensure the quality and knowledge level of industrial arts teachers at a constant high. The curriculum that is developed for the industrial arts program should also have provisions where it can be updated on a regularly continuous basis. This update procedure will keep industrial arts programs current with technology.

Questionnaire

Part of the literature review establishes information for construction of an instrument used to collect data. Due to the short amount of time the author had to gather information needed for the study, there were two instruments that were to be the most effective sources: mailed questionnaire and the telephone questionnaire.

Van Dalen emphasized his viewpoint about questionnaires:⁴

"Some studies, or certain phases of them, presenting respondents with carefully selected and ordered questions is the only practical way to elicit the data required to confirm or disconfirm a hypothesis."

Through AGED 5980 the author discovered the phone questionnaire method. By using this instrument of gathering data the return on the

⁴Van Dalen, Debold, Understanding Educational Research, 3rd Edition, McGraw Hill Book Company, New York, 1973, p. 324.

data was much faster and could therefore be processed more rapidly. The procedure was simple. After locating a list of state junior and senior high schools and their principals, the author was able to call each school that had been selected for the study and get permission to talk with the industrial arts teacher. By using this procedure the author set up a time and date that would be convenient to discuss the project with the teacher; this guaranteed a quick response.

The written questionnaire was chosen because it allowed the industrial arts teacher time to formulate a carefully evaluated response for each question. The mailed questionnaires were sent to those industrial arts teachers whose geographical locations were closer to that of the author's location so to allow for a quicker turnaround time. Telephone interviews were given to the teachers that lived further away.

Summary

The review of literature revealed sufficient information that warranted further investigation into the status of industrial arts in the Oklahoma junior and senior high schools.

CHAPTER III

METHODOLOGY AND DESIGN

The development of the survey instrument was based on research discussed in the previous chapters. There were five phases to the questionnaire as explained below.

The first phase of the questionnaire was designed to answer two major points: (a) education and degrees, and (b) teaching experiences of the industrial arts teacher. The second phase pertained to the size and cost of the shop by obtaining the cost of the inventory on hand of the (a) shop equipment, and (b) drawing equipment.

The third phase of the questionnaire provided information on the types of courses that were offered at the school.

Phase four was concerned with seven different areas: (a) the subject that was being taught and hour of day it was being taught, (b) number of males in the class, (c) number of females in the class, (d) how many times a week the class met, (e) length of the class, and (f) what grade level was being taught.

The fifth and last phase provided information on (a) the number of industrial arts classes that were either closed or opened in the last year (1982), if any, and what type of classes they were, (b) what programs were needed in industrial arts and the need (if any) for more teachers.

The initial questionnaire was administered to five instructors on the Oklahoma State University campus in an effort to validate the instrument. Each instructor was given the questionnaire with an explanation of the purpose of the study and definition of each question. Each instructor was to write an opinion on how to improve the written questionnaire. After reviewing all of the responses with careful consideration, the new questionnaire was developed.

Definition of Population

The Oklahoma Educational Directory was used to list all those schools that had industrial arts programs¹. From this source a list of one hundred and twenty-five schools were chosen for representation.

Definition of Sample

The selection of the schools were determined by random sampling. There was not an attempt made to differentiate the programs by locality or size of student body. Each school was listed alphabetically and given a number from zero to four hundred and seven. These number were then inputed into the computer where it was programmed to randomly choose one-hundred and twenty-five numbers without choosing the same number twice. The numbers were then used to locate the schools for this study.

Method of Obtaining Data

There were two instruments used to obtain the data needed for this study, the phone questionnaire and the written questionnaire respective-

¹State Department of Education, Oklahoma Education Directory, Bulletin No. 110A, 1982-1983.

ly. The phone questionnaire consisted of randomly calling the principals of the selected junior or senior high schools to ask their permission to direct the questionnaire to the industrial arts teacher(s) of that particular school. The procedure of calling the principal first to ask permission was suggested by the head of the author's committee as a form of etiquette. By conducting this kind of inquiry by phone allowed the author to achieve fast, accurate results. Also, if the industrial arts teacher was not readily available, the author could get a time and/or phone number to call back at the teacher's convenience.

The second method use to obtain data for this study was the written questionnaire. This procedure was accomplished by sending out a questionnaire to the schools that were not chosen from the phone questionnaire. This method took longer to process but it gave the industrial arts teacher more time to carefully think about each question and formulate an appropriate answer.

CHAPTER IV

GENERAL FINDINGS

Presentation and Analysis of Data Collected from the Questionnaires

The purpose of this study was to determine the status of industrial arts in the Oklahoma junior and senior high schools. The teachers involved in this study were employed at junior and senior high schools across the state of Oklahoma.

Data for the study was collected by two different methods, the phone questionnaire and the written questionnaire. There were a total of 125 schools involved in this study. Of this total there were 62 (or 49.5 percent) called by telephone. It took an average of two telephone calls to get the industrial arts teacher directly. However achieved, this gave 55 usable questionnaires.

The other 63 (or 50 percent) were sent a written questionnaire. The written questionnaire, as stated earlier, took longer to get a response but it gave the industrial arts teacher time to reach a well thoughtout reply before answering. Of the 63 questionnaires mailed out 40 were returned to the sender which gave a 66 percent return. The total percent of the combined return was 76 percent.

The accuracy of the data received would be totally dependent on the accuracy to which the teacher answered or filled out the questionnaire.

The data received was divided into nine main categories. It was then divided again into two separate classifications that were dependent on whether the response came from a senior or junior high school teacher. Tables were made to show the percentages of each response of the questions asked on the questionnaire and phone interview.

Presentation and Analysis of the Data of Each Area of the Questionnaire

Table I (pg. 16) shows the number of colleges or universities attended by both the senior and junior high industrial arts teachers. Out of the 55 senior high industrial arts teachers surveyed, 36 percent of them attended only one college or university, 32 percent attended two different colleges or universities, 23 percent went to three different schools, .05 percent attended four schools and .018 percent attended 5 different schools. Compare these figures with the data received from the junior high industrial arts teachers and it would be found that 50 percent of the junior high teachers attended only one school, 37 percent attended two schools, .125 percent attended three, and 0 percent attended four or more. This data revealed that 63 percent of all senior high industrial arts teachers questioned attended three or more different universities or colleges. This is an interesting fact especially when comparing the total number of hours in industrial arts with the highest degree earned. Table II (pg. 17) shows the correlation between the number of total hours in industrial arts with the highest degree earned. The total number of senior high school teachers was 55, and of those 55, 32 (or 56 percent) had bachelor degrees; with the total number of hours being 2,755. This would mean then, that each industrial arts teacher

averaged approximately 88.87 hours of industrial arts courses. Out of the remaining 24 senior high school teachers 43 percent had master degrees. These master degreed teachers had a total number of 2,047 hours in industrial arts. This would mean that the average industrial arts teacher with a master degree only averaged 85.29 hours of industrial arts courses. The hypotheses reached would indicate that industrial arts teachers with master degrees received their degree in some field other than industrial arts education.

TABLE I
NUMBER OF COLLEGES ATTENDED BY INDUSTRIAL ARTS TEACHERS

	Total Number of Teachers	Percentage That Attended College or University				
		1	2	3	4	5
Senior High Teachers	55	36	32	23	.05	.018
Junior High Teachers	40	50	37	.125	0	0

Table III (pg. 17) shows that twenty-six junior high teachers (or 65 percent) held bachelor degrees. They averaged a total number of 1,732 hours in industrial arts which gave a mean of 66.62 hours per instructor. The remaining 14 (or 35 percent) junior high teachers had master degrees. These teachers averaged a total of 1,119 hours in industrial arts which gave a mean of 79.97 hours per teacher for indus-

trial arts courses. If Tables II and III were compared with each other, it would reveal that junior high teachers with master degrees averaged only 5.07 hours below that of senior high teachers. Junior high school teachers with bachelor degrees averaged less than 22 hours per industrial arts courses compared to the senior high teachers.

TABLE II

TOTAL HOURS AND HIGHEST DEGREE EARNED BY SENIOR HIGH TEACHERS

Number of Industrial Arts Teachers	Percentage	Highest Degree Earned	Total Number of Hours	Average Number of Hours in Industrial Arts
31	56	Bachelors	2,755	88.87
24	43	Masters	2,047	85

TABLE III

TOTAL HOURS AND HIGHEST DEGREE EARNED BY JUNIOR HIGH TEACHERS

Number of Industrial Arts Teachers	Percentage	Highest Degree Earned	Total Number of Hours	Average Number of Hours in Industrial Arts
26	65	Bachelors	1,732	66.62
14	35	Masters	1,119	79.93

The second category of the questionnaire dealt with the teaching experience of the industrial arts teachers. This category was divided into two questions. The first question asked the total number of years teaching in general, and the second question asked the total number of years teaching industrial arts. The 55 responding senior high teachers gave a total of 672 total years of combined teaching experience. This in turn gave an average of 12.27 years of teaching experience per senior high teacher. Of those 672 combined years of teaching, 614 years went to teaching industrial arts. This is a total average of 11.6 years per teacher. There was a 58 year difference from total years teaching compared with years teaching industrial arts. This showed that the averaged industrial arts teacher taught subjects other than industrial arts for a one year period.

Of the 40 junior high teachers questioned, they averaged a combined total of 352 teaching years. This averaged out to be 8.8 years of teaching per junior high teacher. The junior high teacher had a total average of 324 years teaching industrial arts; this gave a difference of 28 years of teaching compared to teaching industrial arts. These findings showed that the average junior high industrial arts teacher taught .7 years of courses other than industrial arts. Table IV (pg. 19) shows these findings in a numerical form.

Category three researched the price of the shop and drafting equipment on hand. This question was considered very difficult to answer because most industrial arts teachers were not at the school when the equipment was first bought, therefore most of the answers would be an estimated guess of the total value. Of the forty junior high teachers that responded to "Inventory value of shop equipment" two schools

TABLE IV

TOTAL YEARS OF EXPERIENCE

	Number of Teachers	Total Number of Years Teaching	Average Number Years of Teaching Per Teacher	Total Number of Years Teaching Industrial Arts	Average Number Years Teaching Industrial Arts Per Teacher	Difference Between Total Years vs Teaching Industrial Arts
Senior High Teachers	55	672	12.27	614	11.16	58
Junior High Teachers	40	352	8.8	324	8.1	28

responded that they did not know the value of the shop equipment, and one school said that they did not have any shop equipment. By removing those three schools from the total average this would mean that each school would have an average inventory value of shop equipment of \$32,432. The inventory value of drafting equipment for these same forty schools, as expected, is much lower. The same two schools that did not have a value for their shop equipment did not know the value of their drafting equipment. There were also six schools that indicated that they did not have any drafting equipment at all. By subtracting the six schools from the total schools given questionnaires, this gives an average of \$7,057.81 worth of drafting equipment. The total value of all the junior high shop equipment was \$1,200,000.00 and of the drafting equipment was \$225,850.

When comparing the value of the junior high equipment with the senior high equipment the author discovered that the inventory value was very close in comparison, even though there were fifteen more senior high schools questioned. Of the fifty-five high schools that responded, four of the teachers did not know the value of their equipment and three did not have any equipment. By subtracting these seven schools from the total received, leaving forty-eight schools to average. The average value of shop equipment for the senior high schools was \$26,083.33. This average was \$6,348.91 below that of the junior high schools. There was not a large difference between the number of schools that reported zero value for their drafting equipment. The junior high schools had six schools with zero inventory and the senior high had ten schools with zero inventory; this gave a percent difference .03. The junior high schools had a larger average for the total inventory which was

\$225,850.00 compared to the senior high schools average of \$220,425. Since the senior high school inventory was less than the junior high school inventory, the senior high average per school would also be lower, which it was. The average value for a senior high drafting equipment was \$5,510.62. This was \$1,547.19 below the junior high average. The findings are represented in Table V (pg. 22).

Category four of the questionnaire looked at the types of programs that were being offered at the junior and senior high schools. The list consisted of thirteen different subjects plus a space to let the teachers add a course they were teaching that was not listed on the questionnaire. As expected, woodworking and drafting were the two main industrial arts subjects taught by both junior and senior high schools. Forty-three (or 78 percent) taught a woodworking course, forty (or 72 percent) taught drafting, nine (or 16 percent) taught sheetmetal, eleven (or 20 percent) taught a craft course, four (or 7 percent) had electricity/electronics courses, eight (or 14 percent) had an automotive course, only seven (or 12 percent) had a course in construction, one (or 1.5 percent) taught graphic arts, two (or 3.6 percent) had a foundry course, five (or 9 percent) taught small engines, and five schools marked that they taught other courses that were not listed. There were also two subjects, plastics and computers, that were not categorized as industrial arts courses at any of the high schools that responded to the questionnaire.

The junior high schools had a similar comparison to the courses being taught except for two areas that will be mentioned later. Thirty-nine (or 97.5 percent of the junior high schools taught woodworking as a subject. Thirty-four (or 85 percent) taught drafting, eleven (or 27.5

TABLE V
INVENTORY VALUE OF JUNIOR AND SENIOR HIGH EQUIPMENT

	No. of Schools	No. of Schools With No Inventory	Value For	%	No. of Schools With Shop Inventory	%	No. of Schools That Did Not Know Shop Inventory Value	%	No. of Schools With No Drafting Inventory	%	Total No. of Schools With Drafting Inventory	%	No. of Schools that did not know Drafting Inventory Value	No. of Schools That Did Not Know inven- tory Value
Senior High Teachers	55	3	.05	52	94	4	7.6	10	18	45	81	5	11	
Junior High Teachers	40	1	.025	39	97	3	7.6	6	15	34	85	2	5.8	

percent) offered sheetmetal, thirteen (or 32.5 percent) had a craft course, nine (or 22.5 percent) had courses in construction. There were no automotive courses taught in junior high because students of this age cannot drive; however, six (or 15 percent) offered courses in small engine repair. There were three other courses that were not offered at the junior high level: plastics, graphic arts, and computers. The biggest surprise was the number of junior high schools that offered foundry and machine shop. There were nine (or 22.5 percent) offering foundry courses at the junior high level while only two at the high schools. With the danger and expense involved in setting up a foundry program one would guess that more high schools than junior high schools would promote the foundry courses. Machine shop courses offered at the junior high level out numbered the senior high 6 to 0. Again, as an opinion of the author, due to complicated machinery and instruction, machine shop courses belong at the senior high level, not at the junior high level. Senior high schools like that of the junior high schools offered five subjects other than those on the questionnaire. Figure 2 (pg. 26) gives this information graphically.

The last four categories dealt with the courses added, courses dropped and the name of the courses, what programs needed to be added (if any), and if was there was a need for more industrial arts teachers. Due to the lack of qualified teachers, four junior high teachers reported that they lost an industrial arts program at their school. The programs were: general shop (at the 9th grade level), photography, electronics and CVET. This does not seem like much but when there were only three courses added during that same period there is much to be taken into consideration. If this situation happened yearly, industrial

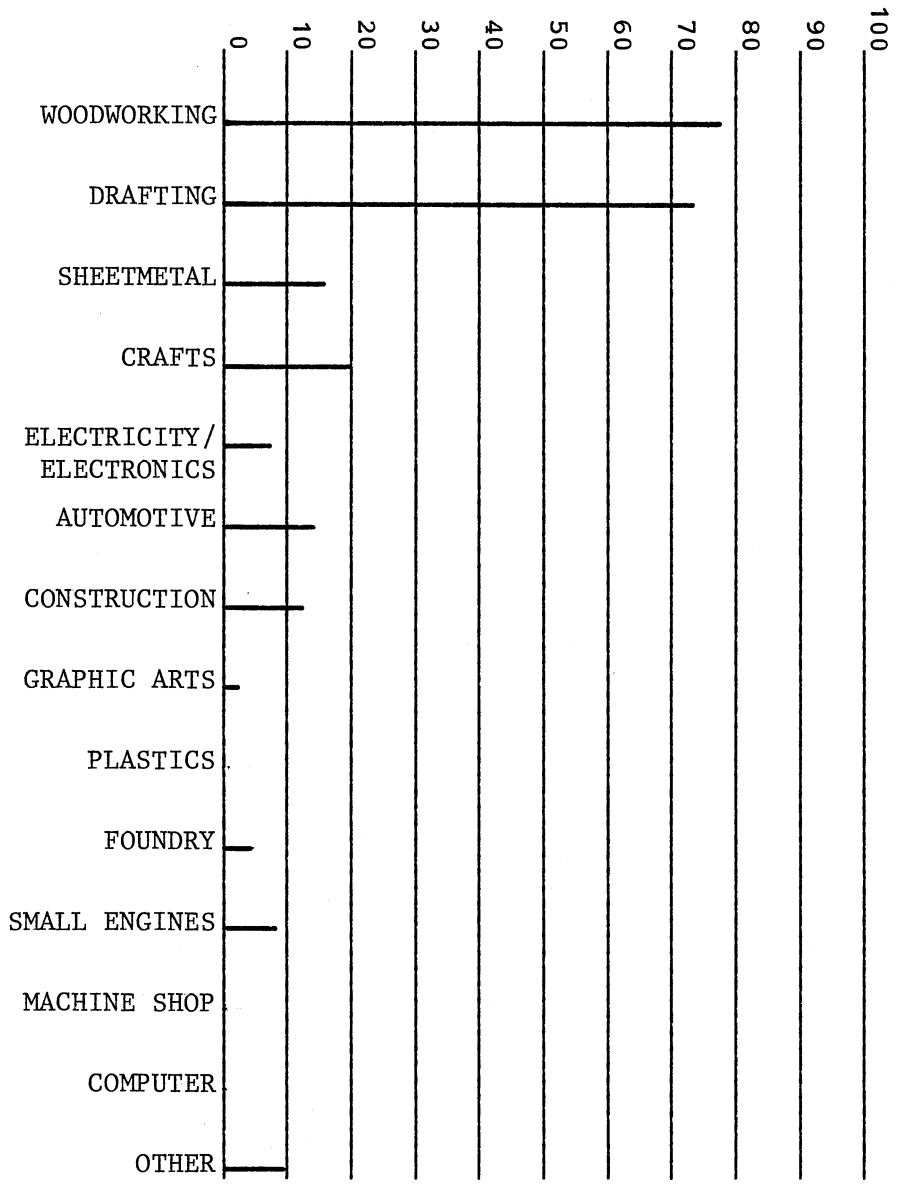


Figure 1. Courses Offered at the Senior High Schools

arts would cease to exist. The junior high teachers felt that the courses offered were sufficient, but that the children needed more "hands on" activity. A further study of these activities might be considered. Twenty-five percent of the junior high teachers communicated that there was not a need for more industrial arts teachers; one of the main reasons was due to limited class enrollment. The teachers felt as long as the enrollment was low there would be no need for more industrial arts teachers. Another industrial arts instructor said there would be no need for more teachers due to the low employment rate in the oil field (industrial arts teachers were hired to work these fields and the teachers are no longer needed). The remaining teachers (75 percent) stated that there was a great need for industrial arts teachers. One school closed their only program because the administration could not hire a qualified industrial arts teacher. Another teacher stated that his minor was industrial arts and that he was teaching an industrial subject only because the school could not find another qualified teacher to fill the position. These reasons, given by the teachers themselves, should be researched to a greater degree.

The majority of the senior high teachers (72 percent) felt that there was a need for more industrial arts teachers and that some of them should be trained in the more traditional fields; plastics or lapidary work. Thirty-five percent wrote of the need for more courses in carpentry, construction, auto mechanics, plastics, and bricklaying. The problem with construction, auto mechanics, and bricklaying, however, is that these courses are fairly expensive and are taught in the vocational schools at a more modest cost.

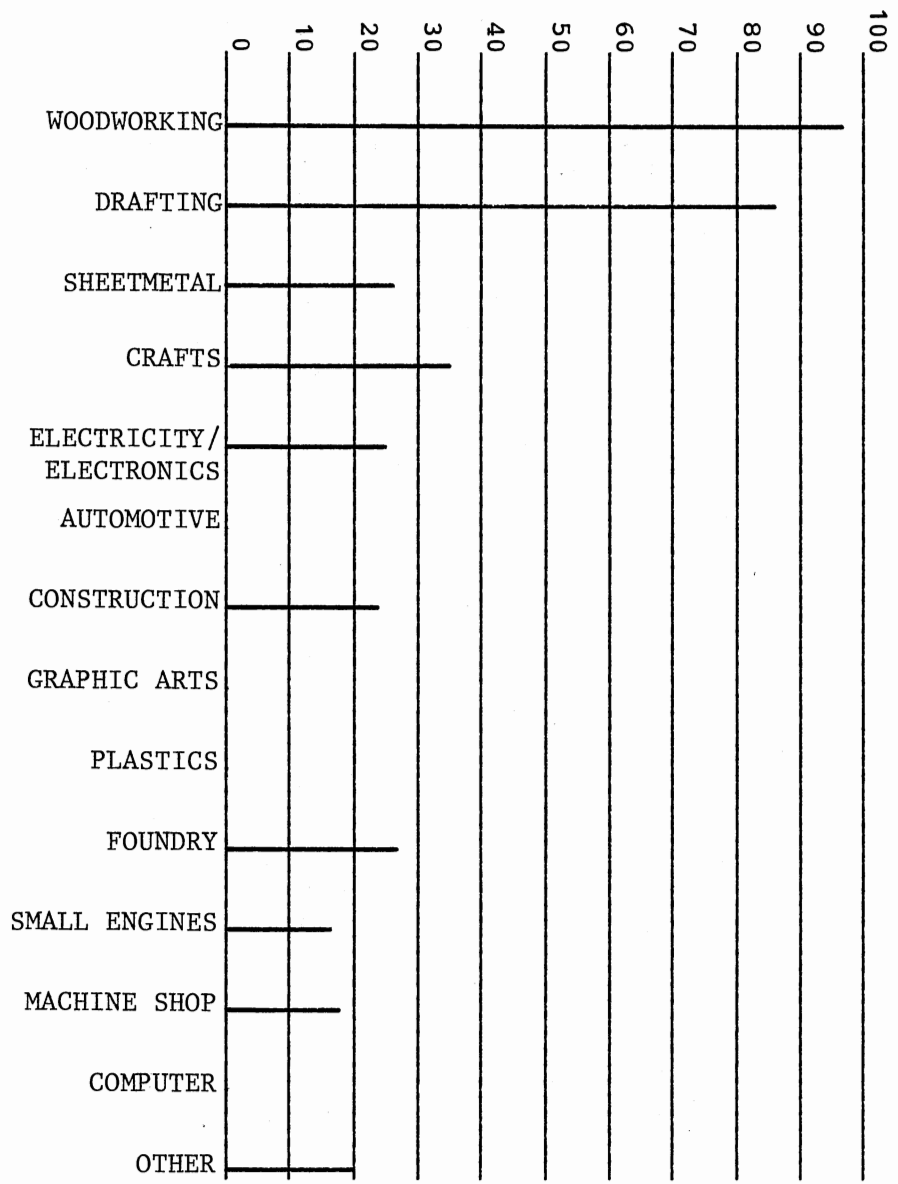


Figure 2. Courses Offered at the Junior High Schools

Of the classes closed and opened last year (1982) for the senior high schools, there were eight classes dropped: two drafting courses, crafts, woods I, II, III, welding, automotive, small engine and cabinet-making classes. There were, however, four classes added during that same time period; two general shop courses, one drafting, and one woods course. As the study reveals, the senior high schools are losing more courses from the curriculum than they are gaining.

CHAPTER V

SUMMARY AND CONCLUSIONS, AND RECOMMENDATIONS

Summary

The stated purpose of this study was to determine the status of industrial arts in the Oklahoma junior and senior high schools. In the last few years the industrial arts programs have been decreasing steadily in the Oklahoma public school system. This study investigated the factors involved to cause this decline of interest in the industrial arts programs by sending out written questionnaires and telephoning selected industrial arts teachers across the state of Oklahoma. The questionnaire that was used in the study consisted of nine main topics that the author felt pertained to the status of industrial arts.

The first category dealt with the education of the industrial arts teacher. This was broken down into three subtopics; number of colleges or universities attended, number of college credits in industrial arts education, and highest degree earned. The responses from the industrial arts teachers indicated that 63 percent of all senior high teachers attended three or more colleges or universities during their college training, whereas the average number of colleges or universities attended by the junior high teacher was over 37 percent. Of the 94 responses not one industrial arts teacher had a doctorate degree. Fifty-six percent of the senior high teachers had master degrees while only four percent had bachelor degrees. The average number of college hours in

industrial arts was 85 for the teacher with a bachelor's degree. Of the junior high teachers 65 percent had bachelor degrees with an average of 66.62 hours in industrial arts education. The remaining junior high teachers (35 percent), had master degrees with an average of 79.33 hours of industrial arts education.

Category three was concerned with the types of courses offered at the junior and senior high level. As expected, woodworking and drafting were the two major subjects taught, followed by crafts, sheetmetal and construction.

Category 6 through 9 asked the the teacher the number of closings or openings in their schools, what the courses were, what programs were needed, and if there was a need for more teachers.

Conclusions

Based on the data available, the following conclusions may be drawn regarding the status of the industrial arts programs in Oklahoma:

1. Industrial arts teachers have an appropriate number of hours for teaching industrial arts.
2. The average number of years that a senior and junior high industrial teachers has teaching industrial arts is 11.16 and 8.1 respectively. This shows that the industrial arts teacher is comfortable and satisfied with their jobs.
3. There were a number of courses dropped at both the junior and senior high and reveals further study is needed.
4. There were courses added during the year (1982) but did not equal the large number of courses dropped during that same year.

5. A majority of the teachers indicated the same professional career needs for industrial arts programs.
6. There were varied responses to the question asking if there was a need for more industrial arts teachers. However, the majority felt that there was a need for more qualified industrial arts teachers.

Recommendations

Findings of the study suggests the need for the following:

1. The industrial arts teachers should write the head of the state department of industrial arts education and explain which of their courses have been dropped and why.
2. Industrial Arts teachers should put their professional career needs in writing and join together at the state level.
3. Make the industrial arts philosophy known to administrators at both the state and school board levels.
4. Administrators and the school board should work with vocational educators to improve the industrial arts programs which, in return, will improve the vocational school programs.
5. Further study is needed to clarify and determine the status of industrial arts.

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APPENDIX A

SAMPLE OF QUESTIONNAIRE

QUESTIONNAIRE

Name of School: _____ City: _____

Name of teacher: _____

EDUCATION:

College(s) or universities attended: _____

Number of college credits in industrial arts: _____

Highest degree earned: _____ Major _____ Minor _____

EXPERIENCE:

Total number of years teaching: _____

Total number of years teaching industrial arts: _____

INVENTORY VALUE:

Inventory value of shop equipment: _____

Inventory value of drafting equipment: _____

TYPES(S) OF INDUSTRIAL ARTS PROGRAMS: check the appropriate one(s):

Woodworking _____ Graphic arts _____

Drafting _____ Plastics _____

Sheet metal _____ Foundry _____

Crafts _____ Small engines _____

Electricity/Electronics _____ Machine shop _____

Automotive _____ Computer _____

Construction _____ Other _____

Number of industrial arts courses closed in the last year: _____

What was the course(s): _____

Number of industrial arts course(s) added in the last year: _____

What was the course(s): _____

What programs do you feel are needed in industrial arts: _____

Is there a need for more industrial arts teachers: _____

QUESTIONNAIRE (Continued)

Period	Name of subject	Number of males	Number of females	Meetings per week	Length of class	Grades taught	Title of book(s)
First							
Second							
Third							
Fourth							
Fifth							
Sixth							

This concludes our survey. Your answers have been very helpful. Thank you for your time.

APPENDIX B

SAMPLE OF LETTER MAILED WITH QUESTIONNAIRE

David W. Day
148 Melrose
Stillwater, OK 74074

September 12, 1983

Mr. James N. Kindsfather
Altus Northeast Jr. High
Altus, OK 73521

Dear Mr. Kindsfather:

I need your help! I am conducting a study for a master's thesis on the status of industrial arts programs in the Oklahoma Junior and Senior High Schools.

This study is intended to help the industrial arts teacher in the public school by demonstrating how their program compares with programs in other schools and where these comparisons are. Knowing where their program stands, the instructor could use this information to improve the program currently being taught.

In addition to the information provided to the existing industrial arts teacher, this study will also help the prospective teacher become more marketable in the teaching profession. By presenting the necessary courses needed, the industrial arts programs may be kept an important commodity in our schools.

Please take a few minutes and complete the attached questionnaire concerning your program. I would not be able to complete this study without your help and I thank you in advance for the time and effort spent.

Sincerely yours,

David W. Day

Attached: Questionnaire

Approved:

John B. Tate, Ed.D.
Associate Professor

APPENDIX C

SAMPLE OF SECOND LETTER MAILED

David W. Day
148 Melrose
Stillwater, OK 74074

September 28, 1983

Mr. James N. Kindsfather
Altus Northeast Jr. High
Altus, OK 73521

Dear Mr. Kindsfather:

I am writing this letter as a reminder to you that I still need your help. I sent you a questionnaire that deals with conducting a study entitled "The Status of Industrial Arts in the the Oklahoma Junior and Senior High Schools." I am sending you another questionnaire in case you have misplaced or failed to receive my first letter.

Would you please take the time to complete and return the questionnaire as soon as possible in the enclosed self-addressed, stamped envelope? Thank you for your cooperation and assistance.

Sincerely,

David W. Day

Enclosure: Questionnaire

APPENDIX D

SAMPLE OF THANK YOU LETTER

David W. Day
148 Melrose
Stillwater, OK 74074

October 10, 1983

Mr. James N. Kindsfather
Altus Northeast Jr. High
Altus, OK 73521

Dear Mr. Kindsfather:

Thank you very much for taking the time to participate in my research project. Because of your cooperation, I was able to collect all of the data for my master's thesis on a timely basis.

Please let me know if I can be of any assistance to you in the future.

Sincerely yours,

David W. Day

VITA 2

David Wayne Day

Candidate for the Degree of

Master of Science

Thesis: STATUS OF INDUSTRIAL ARTS IN OKLAHOMA HIGH SCHOOLS

Major Field: Industrial Arts Education

Biographical:

Personal Data: Born in McAlester, Oklahoma, October 20, 1953,
the son of David and Neopia Day.

Education: Graduated from Glendora High School, Glendora
California, May 1971; received the Bachelor of Science degree
from Oklahoma State University, Stillwater, Oklahoma, with a
major in Industrial Arts Education, December 1981; completed
requirements for the Master of Science degree at Oklahoma
State University, December, 1983.

Professional Experience: Sergeant in the United States Marine
Corps Reserve, 1981-present; High School drafting teacher,
Norman Oklahoma, 1983-present.