

SOME FACTORS RELATED TO INDUSTRIAL  
ARTS TEACHER EDUCATION IN OKLAHOMA

By

Ralph A. DeWeber

Bachelor of Science

Central State College

Edmond, Oklahoma

1949

Submitted to the Faculty of the Graduate School of  
the Oklahoma Agricultural and Mechanical College  
in Partial Fulfillment of the Requirements  
for the Degree of  
MASTER OF SCIENCE

1954

SOME FACTORS RELATED TO INDUSTRIAL ARTS  
TEACHER EDUCATION IN OKLAHOMA

OKLAHOMA  
AGRICULTURAL & MECHANICAL COLLEGE  
LIBRARY

JUN 9 1955

Ralph A. DeWeber

MASTER OF SCIENCE

1954

REPORT AND ABSTRACT APPROVED:

*C. L. Hill*

Report Adviser and Acting Head,  
School of Industrial Arts Education  
and Engineering Shopwork

*L. H. Bengtson*

Associate Professor,  
School of Industrial Arts Education  
and Engineering Shopwork

*Edward B. Stopley*

Dean, Oklahoma Institute of Technology

*Robert Mawle*

Dean of the Graduate School

343533

## TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM WITH RELATED TERMINOLOGY . . . . .	1
The Problem . . . . .	1
Statement of the Problem . . . . .	1
Importance of the Study . . . . .	2
Related Studies . . . . .	3
Technique and Source of Data . . . . .	5
Data from Catalogs . . . . .	5
Data from Questionnaires . . . . .	5
The Scope and Limitation of the Problem . . . . .	7
The Scope of the Problem . . . . .	7
The Limitations of the Problem . . . . .	7
II. A HISTORY OF THE COLLEGES AND THE UNIVERSITY USED IN THIS STUDY. . . . .	9
The University of Oklahoma . . . . .	9
Oklahoma Agricultural and Mechanical College . . . . .	10
Central State College . . . . .	11
East Central State College . . . . .	12
Panhandle Agricultural and Mechanical College . . . . .	12
Northeastern State College . . . . .	13
Northwestern State College . . . . .	14
Southeastern State College . . . . .	14

CHAPTER	PAGE
Southwestern State College . . . . .	15
III. PERSONNEL DATA ABOUT STAFF MEMBERS . . . . .	17
Experience . . . . .	17
Teaching Industrial Arts . . . . .	17
Trade Experience . . . . .	22
Education . . . . .	25
Degrees Earned . . . . .	25
Semester Hours Credit Earned . . . . .	29
IV. INDUSTRIAL ARTS COURSES IN COLLEGE CATALOGS.	34
V. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS .	38
APPENDIX	
A Bibliography . . . . .	40
B Copy of Questionnaire and Accompanying Letter Used in Research of This Study .	43

## LIST OF TABLES

TABLE	PAGE
I. Industrial Arts Teaching Experience of Staff Members	19
II. Trade Experience of Staff Members	24
III. Degrees Earned by Staff Members	28
IV. Semester Hours Credit Earned by Staff Members	30
V. Courses Listed in College Catalogs	35

## CHAPTER I

### THE PROBLEM WITH RELATED TERMONOLOGY

This chapter will serve as an introduction for the factors involved. Clarification of the problem should help the reader to better understand the various parts of this study. Techniques used in securing data might also have some bearing on the value of such a study. The factors considered are only a few of those which might be used for a similar study.

#### I. THE PROBLEM

##### Statement of the Problem

"Some Factors Related to Industrial Arts Teacher Education in Oklahoma" will include personnel information about staff members teaching in the nine state-supported four-year colleges. The University of Oklahoma was included as one of those nine. This study includes all staff members teaching in the 1952-53 school year as listed in the directory of teachers<sup>1</sup> distributed by Oklahoma A. and M. College for that year. Exceptions to those listed was

---

1 Dewitt Hunt, C. L. Hill, "Directory of Teachers and Administrators of Industrial Education Courses in Oklahoma Secondary Schools, Colleges, and Universities, School Session, 1952-53, (distributed cooperatively by the School of Industrial Arts Education and Engineering Shopwork at Oklahoma A. and M. College, Stillwater, 1953), pp. 1-4.

to omit John Brown of Central State College who was teaching only high school classes and including Sam Webster of the same college who was teaching in England that year.

Importance of the Study

This study was undertaken in an effort to secure some information that might be used to check the trend and progress of industrial arts teacher education in Oklahoma. This is the first study to include such information. No attempt was made in this study to evaluate progress or relate the trend with the information secured. No past study could be found upon which any basis for comparisons might be established. College catalogs and class schedules are destroyed after serving their immediate usefulness. Any information that might be secured from such sources is greatly limited. Even those college catalogs for the current year were not to be found in any one place. Most department heads do not have time to keep adequate records of their own department. Any progress or trend for a single industrial arts department would rest in the minds of a very few people. It must be understood that much of the information for this type study was more or less personal for some reason. Such information was used in this study with great care in an effort to keep from

offending any individual department or college. The basis information is related to the situations comprising industrial arts teacher education for Oklahoma. It is the over all picture attempted with as many segments, weak or strong, utilized to form that picture.

#### Related Studies

As previously stated there are no previous studies which present information directly related to this study. One study completed by Franklin<sup>2</sup> in 1931 was only vaguely related as a basis for a teacher education program. Another study by McHenry<sup>3</sup> in 1927 would include the present colleges of Oklahoma that were in the North Central Association at that time. Yet the degree qualifications of industrial arts staff members is the only factor to parallel those of this present study.

Some of the studies secured from other states did involve small parts to parallel this present study while

---

2 Marion E. Franklin, "A Survey of Industrial Arts in the State of Oklahoma as a Basis for a Teacher Training Program", (unpublished Master's thesis, Oklahoma A. and M. College, Stillwater, 1931) pp. 1-64.

3 Paul T. McHenry, "A Comparative Study of Industrial Arts Education Programs in Forty-two Teachers Colleges", (unpublished Master's thesis, Oklahoma A. and M. College, Stillwater, 1933), pp. 1-51.



some studies were related to other areas of industrial education. One study by Cole<sup>4</sup> which included six colleges in Missouri had no information to parallel this present study even though the title might indicate a similar study. Even so, that study would be of value in other studies related to shop equipment or requirements for industrial arts majors. Another study at Stout Institute by Opem<sup>5</sup> would give some basis for similar studies related to students expense or salaries of graduates. One study by Nagel<sup>6</sup> gave the degree requirements for the tax supported colleges of Kansas and the Municipal Universities of the United States. Even though little or no information could be used from a thesis, they are listed in this part of the study as related. Other more closely related studies will be used in the following chapters.

---

<sup>4</sup> Duane R. Cole, "Industrial Education in Some Colleges of Missouri", (unpublished Master's thesis, Iowa State College, Ames, 1948), pp. 1-34.

<sup>5</sup> Martin Opem, "Teacher Training in Industrial Arts, (unpublished Master's thesis, The Stout Institute, Menomonie, Wisconsin, 1947), pp. 1-52.

<sup>6</sup> William Edward Nagel, "A Program of Industrial Education for the Municipal University of Wichita, (unpublished Master's thesis, The University of Wichita, Wichita, Kansas, 1948), pp. 1-60.

## II TECHNIQUE AND SOURCE OF DATA

### Data from Catalogs

Some of the personnel data was completed from the college catalogs, but it has been necessary to take most personnel data from both the catalogs and a questionnaire. Even data on college degrees is not complete in all catalogs. Where degrees were received was listed in only a few college catalogs. Also tenure was not given in all of the catalogs. It has been necessary to use data from a questionnaire to supplement all phases covered in some of these catalogs. The only part of this study taken directly from college catalogs was courses listed as industrial arts.

### Data from Questionnaires

The questionnaire used for this study was mailed to all staff members who were teaching during the 1950-51 school year. As the questionnaire did not reach the recipient until the summer term in 1951 many were on vacation before it could be returned. The 1951-52 school year was well in process before some of these questionnaires were returned. This questionnaire was somewhat complicated and required more time to answer than several staff members might feel worthwhile.

Material for this study was brought up to date in the summer of 1952. Then as the 1952-53 school year has progressed every effort has been used to base this study on that school year. Data from the questionnaires used in this study has been kept up to date as nearly as possible by personal contacts and various observations. Parts of the questionnaire have been left out of this study due to insufficient data.

The percentage of return on these questionnaires was high enough to establish some basis for the factors covered. A 76 per cent return of twenty-nine questionnaires was used for parts of this study which could not otherwise be supplemented. Parts I and II of chapter III of this study were based directly on the questionnaire. As this part of the study dealing with past experience would not change except with relation to tenure at the present college, the basis remained stable. The number of semester hours credit earned beyond the last degree was kept up to date where leave of absence indicated a need for this change, in so far as possible. One industrial arts staff member received a Doctor's degree in the summer of 1953. The basic school year for this study did not include that degree.

### III THE SCOPE AND LIMITATION OF THE PROBLEM

#### The Scope of the Problem

This study has been limited to only a few factors which might be considered a part of industrial arts teacher education. The personnel factors were chosen as having a great bearing on this program for the state. No educational program would be properly evaluated with the qualifications of its staff members being omitted. The exact desirable qualifications for staff members would be difficult to ascertain. No attempt has been made to evaluate such factors in this study. Each reader may place his own evaluation on any part of this study. Information is given only as some basis for such an evaluation.

#### The Limitations of the Problem

The limitations of this study may be readily seen by the reader. The area covered is quite small in many ways. It is only a segment of the factors involved in the over all industrial arts education program. The geographical area includes only Oklahoma. The colleges considered are only a part of those making a contribution to the industrial arts program in this state. Even the data attempted is not complete. There is a definite need

for other studies in this area of industrial arts education if this study is to mean very much. As available information about this area now stands, there is little for comparison in an effort to measure trend, progress, or present status. Only that which each reader has as his own resources is available.

## CHAPTER II

A HISTORY OF THE COLLEGES AND THE  
UNIVERSITY USED IN THIS STUDY

To give the reader a better understanding of the practices, problems, progress, and many other factors of this study, a short history of the colleges and the university herein considered will be given in this chapter. These short historical sketches will not be arranged chronologically.

## I. THE UNIVERSITY OF OKLAHOMA

The university was established by an act of the first legislature of the Territory of Oklahoma, approved on December 19, 1890. One factor of this law stated that the scope and purpose of the university was "to provide the means of acquiring a thorough knowledge of the theory and art of teaching." The university was established at Norman, near the center of the state, and students were accepted for the first time in the fall of 1892. The first building on the Norman campus was completed in September, 1893. The first degrees conferred at this university were in 1896.<sup>1</sup>

---

<sup>1</sup> University of Oklahoma Bulletin, Catalog Issue for 1949-50, p. 10.

Most of the classes for Industrial Arts teachers are scheduled to meet in the Engineering Laboratory building, which was constructed in 1910.<sup>2</sup>

## II. OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

The establishment of Oklahoma Agricultural and Mechanical College, with its Agricultural Experiment Station was by an act of the First Territorial Legislature effective December 2, 1890. The Institution was located on 200 acres of land immediately adjoining the city of Stillwater.

The college was formally opened on December 14, 1891, in the Congregational Church of Stillwater.

The first college building on the Stillwater campus, now known as Old Central, was completed on June 14, 1894. After gradual development, this college became the Oklahoma institution organized under the provisions of the "Land Grant" or Morrill Act.<sup>3</sup>

---

<sup>2</sup> University of Oklahoma Bulletin, Catalog Issue for 1949-50, p. 15.

<sup>3</sup> Oklahoma Agricultural and Mechanical College Bulletin, General Catalog Issue, 1946-47, p.3.

The School of Industrial Arts Education and Engineering Shop Work is under the Division of Engineering Instruction. This division is a branch of the Oklahoma Institute of Technology of Oklahoma Agricultural and Mechanical College.<sup>4</sup>

### III. CENTRAL STATE COLLEGE

A Territorial Normal School was established by the Territorial Legislature on December 24, 1890, and located in Edmond, Oklahoma.

The first class began on November 9, 1891, meeting in the unfinished building of the First Methodist Church.

Old North Tower, the first building on the Edmond campus, was occupied January 3, 1893. In 1897 the first class of graduates received their Normal School diplomas.

On December 29, 1919, a resolution of the State Board of Education raised the rank of Central to that of a four year teachers college. In 1939 an act of the State Legislature designated the institution as Central State College and authorized the granting of degrees without teaching certificates.<sup>5</sup>

---

<sup>4</sup> Oklahoma Agricultural and Mechanical College Bulletin, Oklahoma Institute of Technology, Catalog Issue 1949-50, p. 71.

<sup>5</sup> Central State College Bulletin, Announcements for 1950-51, p. 13.



#### IV. EAST CENTRAL STATE COLLEGE

East Central State College was established by an Act of the State Legislature in 1909. For the first ten years of its existence, it was known as East Central State Normal School. In 1919 a resolution of the State Board of Education increased the course of study to four years of college; the institution was empowered to confer degrees; and the name was changed to East Central State Teachers College. In 1939 an Act of the State Legislature designated the Institution as East Central State College.

The first life teaching certificate class received diplomas in 1910. The first degree class graduated in 1920.<sup>6</sup>

#### V. PANHANDLE AGRICULTURAL AND MECHANICAL COLLEGE

An Act of the State Legislature in 1909 provided for the establishment of the Panhandle Agricultural Institute at Goodwell, Oklahoma, as a high school for the Panhandle section. In 1921 an Act of the State Legislature authorized this school to offer a two-year college course. At this time the name was changed to Panhandle Agricultural and Mechanical College. In 1925

---

<sup>6</sup> East Central State College Bulletin, Catalog Issue 1949-50, p. 13.

the State Board of Agriculture granted the college permission to extend the curriculum to include junior and senior years of college work, beginning with the summer term of 1926.

The first session of the school was on November 1, 1909. The college curriculum now provides courses leading to various Bachelor's degrees.<sup>7</sup>

## VI. NORTHEASTERN STATE COLLEGE

The origin of Northeastern State College dates back to 1846 when the Cherokee National Council passed an act establishing the National Male and Female Seminaries. As institutions of higher learning, they were opened for admission of students on May 7, 1851. With the exception of some time during the Civil War, these schools were in operation until 1909. In that year an Act of the State Legislature provided for the purchase from the Cherokee Tribal Government of the building, land, and equipment, of the Female Seminary at Talequah. This was also the date for establishing Northeastern State Normal School to train teachers and to provide opportunities for higher education for the residents of the fifteen counties in northeastern Oklahoma.

---

<sup>7</sup> Panhandle Agricultural and Mechanical College Bulletin, General Catalog Issue 1950-51, p. 1.

In 1919, by an Act of the State Legislature the Normal School was changed to Northeastern State Teachers College with authority to increase the curriculum for a four-year college. In 1939 the Oklahoma Legislature changed the name of the college to Northeastern State College.<sup>8</sup>

#### VII. NORTHWESTERN STATE COLLEGE

An Act of the State Legislature on February 26, 1897, established the Normal School at Alva. School opened on September 20, 1897, in the Congregational Church. Alva was but a village when a few of its leading citizens began the struggle which founded a Normal School there. Located in the territory of the Cherokee Strip, its citizenry was composed of settlers who made the run at the opening of this strip.

As the other State Normal Schools, the name has been changed to Northwestern State Teachers College, then to Northwestern State College.<sup>9</sup>

#### VIII. SOUTHEASTERN STATE COLLEGE

On March 6, 1909, an Act of the State Legislature established Southeastern Normal School at Durant. The

---

<sup>8</sup> Northeastern State College Annual Catalog 1950-51, p. 16.

<sup>9</sup> Northwestern State College Bulletin, Catalog Issue 1948-49, p. 13.

school was open for the admission of students on June 1, 1909.

Changes in the name of the institution have followed the same general pattern as the other State Normal Schools.<sup>10</sup>

#### IX. SOUTHWESTERN STATE COLLEGE

In 1901 Southwestern State College was established by the Oklahoma Territorial Legislature as Southwestern State Normal School. It served the southwest district of the state, offering four years of high school preparatory courses and two years of college. In 1920 the State Legislature authorized the preparatory courses dropped and two additional college years were added to the curriculum. This school was then known as the Southwestern State Teachers College.

The college purposes were enlarged in 1939, by an Act of the State Legislature, to include courses in occupations other than those of teacher training. The name was changed to Southwestern State College of Diversified Occupations. Two years later the name of this institution was changed to Southwestern Institute of Technology. In 1949 the legislature again changed the name to Southwestern State College. This college has

---

<sup>10</sup> Southeastern State College Bulletin, Catalog Issue 1949-50, p. 14.

continued to train not only teachers and those who desire a general cultural background, but also executives, stenographers, bookkeepers, salesmen, commercial artists, and pharmacists.<sup>11</sup>

---

<sup>11</sup> Southwestern State College Bulletin, Annual Catalog 1950, p. 18.

## CHAPTER III

## PERSONNEL DATA ABOUT STAFF MEMBERS

The following chapter is based on data secured from a questionnaire. Due to the personal nature of this part of the study, the writer has used all the discretion possible to protect each individual, department, or school. The problem at hand was written as general information with no specific reference to its source.

## I. EXPERIENCE

Teaching Industrial Arts

It is doubtful that there could be much general agreement as to the proper length of time involved for teachers to secure adequate experience in teaching. There could be little general agreement as to how much an individual might profit from his experiences over a given period of time, while time alone could be only a single factor in the evaluation of such experience. Even so, time and experience are closely related in many of the trade areas just as they have been for centuries. A specified number of years are spent as an apprentice before an individual may be classified as a tradesman or master.

Our educational system is established for student promotions after a stated period of time has been utilized. Stimulations upon this time might include some degree of satisfactory attainment. Some form of tests are administered at established intervals while this time is being consumed. Even certificates, diplomas, or degrees might be granted to indicate a student has progressed to a given point. Individuals may form their own opinions as to whether a certain degree means so much time consumed or so much knowledge acquired. Then in evaluating experience it might also be logical to assume that different individuals could use varied criteria in establishing its value. This criteria will be left to the reader. Experience was herein related only to the time involved.

The colleges of Oklahoma considered in this study had a total of twenty-nine staff members directly responsible for the industrial arts teacher education program. The experience of these staff members was secured from a 76 per cent return of twenty-nine questionnaires as shown in table I. All staff members with teaching experience prior to their present positions had taught in a junior high school. Three of this number were teaching in both school levels at the same time. This study indicates 14 per cent of the total staff members had no teaching experience prior to their present positions.

TABLE I  
INDUSTRIAL ARTS TEACHING EXPERIENCE OF STAFF MEMBERS

Staff Member	Number of Years Experience					Total
	Jr. H.S.	Sr. H.S.	Jr. Col.	Other Sr. Col.	Present Sr. Col.	
1	2	3	1	0	34	40
2					32	
3					25	
4	0	1	0	0	29	30
5	0	0	0	0	7	7
6	0	7	0	0	38	45
7	2	2	0	0	32	36
8	3	5	4	3	28	33
9	0	1	0	0	11	12
10	0	2	0	0	27	29
11					5	
12	6	5	0	6	7	24
13	0	0	0	0	6	6
14	0	0	0	0	4	4
15	0	1	0	0	4	5
16	1	5	0	0	6	12
17						
18	(3	3)	1	0	10	22
19	3	3	0	12	17	35
20					15	
21	8	13	0	0	7	28
22	12	11	0	0	6	29
23					36	
24	0	19	0	1	14	34
25	1	6	0	2	7	13
26					5	
27	(2	2)	0	0	6	8
28	0	5	0	0	7	12
29	(8	8)	0	0	11	19
a. No Data	7	7	7	7	1	7
b. No. With No Exp.	10	3	19	16	00	00
c. No. With Exp.	12	19	3	6	28	22
d. Av. Yrs., Exp	4.3	5.2	2.0	5.3	14.5	21.3

\*Information on eight staff members was taken from College Catalogs. The balance of this table was computed from a 76 per cent return of twenty-nine questionnaires.



Twenty-seven per cent came from another senior college to their present positions. This leaves 59 per cent who came from a high school or junior college to their present senior college.

Tenure of industrial arts teacher education staff members indicates about the same trend as that for other teacher education departments under the Board of Regents of Oklahoma Colleges. Doyle,<sup>1</sup> in a 1950-51 report to the six colleges under that board, shows that 50 per cent of all staff members had more than ten years of tenure. This study would indicate an average tenure of 14.5 years for staff members of industrial arts at this time. The above report indicated 41 per cent of all the staff members in those six colleges had four years or less tenure. At the present time only 8 per cent of the staff members of industrial arts have four years or less tenure. No staff member of industrial arts has less than four years tenure. The 1950-51 report has 7 per cent of the total staff members listed with more than thirty years tenure. At this time 18 per cent of the staff members of industrial arts have more than thirty years tenure.

---

1 W. T. Doyle, Executive Secretary, Board of Regents of Oklahoma Colleges. Pertaining to Faculties 1950-51. Unpublished report sent to the six colleges under that board of regents. These six colleges are included in this study.

Cole,<sup>2</sup> in a 1948 study of industrial arts in six colleges of Missouri, shows an average tenure of 16.7 years for sixteen staff members. At that time the included staff members of the present study would have shown a 10.7 years average tenure. It might also be interesting to note that only one industrial arts teacher education staff member had been employed in those Missouri colleges for seven years prior to the 1948 study. During that same period, fifteen of the present staff members of industrial arts were employed in the nine Oklahoma colleges included in this study. The Missouri study indicated that fifty per cent of the industrial arts staff members were employed from 1921 to 1926. No staff member of that study was employed in his present position prior to 1921. The six colleges of the Missouri study did not have the post World War II increase in the number of industrial arts staff members that prevailed in the four-year state colleges of Oklahoma. Fourteen of the staff members of the present study were placed in their present positions during the five year period following the close of World War II. Only six staff members took their present positions during the sixteen years from 1929 to 1945.

---

<sup>2</sup> Duane R. Cole, "Industrial Education in Some Colleges of Missouri", (unpublished Master's thesis, Iowa State College, Ames, Iowa, 1948), P. 19.

The other eight staff members were employed in their present positions within a fourteen year period prior to 1929. On the percentage basis there would be 50 per cent of the staff members of this study employed since World War II. During what might be considered the depression years and World War II years, only 21 per cent of the present staff were employed in their present positions. Prior to 1929 there was 29 per cent of the present staff in their present positions.

#### Trade Experience

There seems to be little general agreement on the desirability of trade experience for industrial arts teachers. In some sections of the United States there is more emphasis placed on the trade experiences factor than there would be in other areas. No conclusions will be made in this study as to what would constitute a desirable amount of trade experience. This section will only indicate the amount of trade experience as indicated on a questionnaire by the staff members herein considered.

There seems to have been very few studies made that would indicate the trade experience of college staff members teaching industrial arts. One study made by Cole<sup>3</sup> on six colleges in Missouri, would indicate eleven of

---

<sup>3</sup> Cole, op. cit., p. 20

sixteen industrial arts staff members had some trade experience. Even so, only six of the eleven staff members had more than one year of industrial experience. Only two staff members of that study indicated five or more years of industrial experience. In the present study of twenty-nine industrial arts staff members in nine Oklahoma colleges there would be a greater amount of trade experience indicated. Of the twenty-two questionnaires returned by staff members, 14 indicated trade experience of two or more years. By comparison, the Missouri colleges of the above study would show 37 per cent of the industrial arts staff members had more than two years of trade experience while the present study would indicate 64 per cent in the same category. The Missouri study indicated 12 per cent of the staff members with five or more years trade experience as compared with 27 per cent for this Oklahoma study.

There is no indication in this study that any change in emphasis upon trade experience has prevailed for the past thirty years. A parallel of trade experiences with tenure in present positions would indicate the same trend through three periods related in the statements below. Of the eight staff members employed in their present positions prior to 1929, four indicated trade experience. During the period 1929 to 1945 six staff members employed

TABLE II  
TRADE EXPERIENCE OF STAFF MEMBERS

Staff Members	Number of Years Experience *		
	Teaching Trade Courses		
	Working Full Time	Part Time	Full Time
1	6	0	0
2			
3			
4	0	0	0
5	5	0	0
6	3	0	0
7	4	2	0
8	0	0	0
9	0	0	0
10	2	0	0
11			
12	0	0	16
13	8	4	2
14	0	2	0
15	8	0	0
16	8	0	0
17			
18	0	0	0
19	4	0	0
20			
21	3	0	2
22	2	0	0
23			
24	3	0	0
25	8	0	0
26			
27	0	0	0
28	0	0	2
29	3	0	0
No Data	7	7	7
No. With No Exp.	8	19	18
No. With Exp.	14	3	4

\*Data was secured from a 76 per cent return of twenty-nine questionnaires.

in their present positions with three having trade experience. Since 1945 fourteen staff members were employed in their present positions with seven having trade experience. Through all three periods, 50 per cent of the staff members employed in their present positions had trade experience. The only change prevalent is in the later period which indicates a higher number of years experience. For that period five of the seven staff members with trade experience indicated five or more years trade experience. Four of these indicated eight years of trade experience.

The twenty-two questionnaires returned for this study show six staff members with experience teaching trade courses either part time or full time. Yet, three of these six trade course teachers indicated no trade experience working full time in the trade they were teaching. The questionnaire did not distinguish Smith-Hughes teachers from other trade teachers.

## II. EDUCATION

### Degrees Earned

Most college catalogs list the degrees earned by staff members. Yet, a questionnaire was necessary to make this part of the study complete. The past policy of the state colleges had no set pattern as to the

professional rank in relation to degrees earned. Only within the past year has six of the state colleges agreed on a salary schedule based on degrees earned.

There is little doubt that the qualifications of all teachers has shown a gradual rise for many years. The present study would also substantiate the same general trend for the staff members herein considered. An early study made in 1933 by McHenry<sup>4</sup> which included forty-two teachers colleges, gave the college preparation for industrial arts staff members. The Doctor of Philosophy degree had been obtained by only one staff member of the 125 included in that study. Forty-one staff members had the Master's degrees. This would make a total of 34 per cent with a Master's or Doctor's degree. Fifty-four staff members or 43 per cent of those considered had Bachelor's degrees. This left 29 staff members or 23 per cent with some college training but with no degree. Among the heads of the forty-two departments in that early study, there were 23 with Master's degrees, 18 with Bachelor's degrees and 1 holding no degree.

A later study made in 1948 by Cole<sup>5</sup> on some colleges in Missouri would indicate more industrial education staff members had higher college degrees. Twenty per cent

---

<sup>4</sup> McHenry, op. cit., p. 13.

<sup>5</sup> Cole, op. cit., p. 18.

of those Missouri colleges staff members had Doctor's degrees, 60 per cent had the Master's degrees, while the remaining 20 per cent had Bachelor's degrees. This made a total of 80 per cent with Doctor's or Master's degrees at that time in those Missouri colleges.

The present study of 29 industrial arts staff members indicates only one member is teaching without a degree. Four other staff members are teaching without a Master's degree. Three staff members were teaching in the school year 1952-53 with Doctor's degrees. Since that time one other staff member has received the Doctor's degree. A distribution of the latest degrees earned by members of the total staff would show 4 per cent with no degree, 13 per cent with Bachelor's degrees, 73 per cent with Master's degrees and 10 per cent with Doctor's degrees.

Table III indicates from which college in Oklahoma and which state outside Oklahoma each degree was received. The 10 master's degrees received outside of Oklahoma were from 8 different states. One or more degrees have been received by 14 staff members from another state. Fourteen staff members are now teaching at the college where they received the Bachelor's degree. Two other staff members are now teaching at the college where they received the Master's degree.



TABLE III  
DEGREES EARNED BY STAFF MEMBERS

Staff Member	Where Degree Was Earned*				
	A. B. - B. S.		M. A. - M. S.		Ph. D.
1	ECSC	Kan.	N.Y.		
2	Wis.		Col.		
3	SESC			X	
4		OAMC	Iowa		
5		OU	Mich		
6		OAMC	Ohio		Ohio
7		OAMC		OAMC	OU
8		OAMC		OAMC	
9		CSC		OAMC	
10		ECSC		Iowa	
11		NWSC	Col.		
12		SESC	X		
13		Texas		Texas	
14		OAMC		OAMC	
15		CSC			
16		CSC		OAMC	
17		P. A&M		OAMC	
18		NWSC		OAMC	
19	Neb.		Neb.		Mo.
20	No Degree				
21		Kan.		OAMC	
22		CSC		OAMC	
23	Cal.				
24		Mo.		Kan.	
25		So. Dak.			
26		Mo.			
27		OAMC		OAMC	
28		NESC		OAMC	
29		SWSC		OAMC	
Incomplete Data	0	0	1	1	0
In State Degrees	2	18	0	12	0
Out of State Degrees	3	6	7	3	3
No Degree	1			5	26
Total Degrees	28			24	3

\*Data was secured from College Catalogs and Questionnaires.

### Semester Hours Credit Earned

A questionnaire was used to secure information on the number of semester hours credit earned in industrial education and all graduate credit beyond the last degree. Another factor considered in this part of the study was in relation to the last time each staff member had attended a college or university.

This study would indicate that 17 staff members had above 30 semester hours of credit in undergraduate industrial arts. With no data on eight staff members, the above figure would comprise 81 per cent of those reporting. Three staff members had less than 30 semester hours but more than 16 semester hours in this category. Only one staff member has no undergraduate credit in industrial arts.

Five staff members have thirty or more semester hours of graduate industrial arts credit, while nine staff members had less than thirty but more than sixteen semester hours graduate credit in industrial arts. Seven questionnaires returned indicated less than sixteen graduate semester hours credit in industrial arts. One staff member has no graduate credit in industrial arts. The above numbers properly distributed for the twenty-one who returned the questionnaire, would indicate 24 per cent of the staff members had more than thirty semester hours of

TABLE IV  
SEMESTER HOURS CREDIT EARNED BY STAFF MEMBERS

Staff Member	Semester Hours Credit Earned*			
	Undergrad.	I.A.	Grad. I.A.	Grad. T.&I. Last Degree
1	36		8	8
2				
3				
4	24		32	0
5	38		22	0
6	30		30	10
7	34		10	18
8	50		15	16
9	36		20	4
10	36		25	6
11				
12	40		0	0
13	66		24	0
14	40		33	0
15	43		42	0
16	38		40	4
17				
18	0		23	13
19	20		16	0
20				
21	48		9	20
22	45		25	3
23				
24	67		15	8
25	86		8	11
26				
27				
28	36		19	12
29	24		24	0
No Data	8		8	8
Above 30 Sem. Hrs	17		5	0
16 to 30 Hrs.	3		9	3
Below 16 Hrs.	1		7	18
Zero Sem. Hrs.	1		1	8

\*Data was secured from a 76 per cent return of 29 questionnaires.

graduate work in industrial arts. Another 43 per cent of the staff members had less than thirty and more than sixteen semester hours of credit in graduate industrial arts. One-third of those reporting had less than sixteen semester hours of graduate credit in industrial arts.

The above figures would be improved somewhat by changing the terminology from industrial arts to industrial education, as thirteen staff members have semester hours credit in trade and industry courses. The change would include four more staff members to make a total of nine with more than 30 semester hours of graduate credit in industrial education, or a total of 43 per cent with more than 30 semester hours in this category. Also, five other staff members would have more than 16 and less than thirty graduate semester hours credit in industrial education. This would make a total of twenty, or 95 per cent, of the staff members considered as having more than 16 graduate semester hours credit in industrial education.

Even with the broader terminology to include trade and industry courses the above figures do not indicate a high degree of specialization in the major field where the staff members are now teaching. In Doyle's<sup>6</sup> 1950-51 study of the six colleges under the Board of Regents of Oklahoma Colleges it was found that 66 per cent of the

---

<sup>6</sup> Doyle, op. cit., p. 1.

total faculty of 397 members had more than thirty graduate semester hours credit in their major fields. Only two, or 10 per cent, of the present industrial arts staff members have more than 50 semester hours graduate credit in industrial education. The 1950-51 study indicated that 41 per cent of the total faculty of the six colleges also considered in this study had more than 40 semester hours graduate credit in their major fields. Also 25 per cent had more than 50 graduate semester hours in their major fields. This present study would indicate that no industrial arts staff member, who returned a questionnaire, had that many graduate semester hours credit in industrial education.

In relation to the last time industrial arts staff members attended a college or university, this study would indicate that 50 per cent have attended school within the past five years. But for the remaining 50 per cent, the last college attendance is distributed over many years. Another 9 per cent has attended college within the past ten years. This still leaves 41 per cent or seven of nine without Doctor's degrees who have not attended college within the past ten years. Of the seven without Doctor's degrees in the last category, three are heads of the department who have not attended college within the past twenty years. The present staff members without Doctor's

degrees who have not attended college within the past twenty years would account for 22 per cent of the total staff members furnishing data for this study.

## CHAPTER IV

INDUSTRIAL ARTS COURSES IN  
COLLEGE CATALOGS

The college catalogs for the school year 1951-52 were used for this part of the present study. These catalogs covered the courses for the school year 1952-53 which this study is based on. The number of different undergraduate courses was computed for all colleges. Each college course with a different course number or name was treated as a separate course. The requirements for state certification were changed to become effective for the school year 1953-54. This will bring about some change in the college catalogs. Each college will be referred to by number, as in Table V.

The range in the number of courses each college was accepting as industrial arts was from 60 semester hours for college six to 157 semester hours for college nine. This was an average of 85 semester hours per college carried in the college catalogs. There was a total of 204 different courses listed in the nine college catalogs. The courses for the six colleges under the Board of Regents for Oklahoma Colleges were standardized to some extent.

The courses in Table V were arranged into seventeen different areas. The highest number of courses and

TABLE V  
COURSES LISTED IN COLLEGE CATALOGS

Number of Courses	Area	Semester Hours Credit*									Total
		College									
		1	2	3	4	5	6	7	8	9	
3	Aircraft									9	9
13	Auto Mech. & Garage pr.	6	0	4	0	0	2	11	2	20	45
6	Bench and Sheet Metal	3	3	4	3	4	4	3	1	0	25
5	Care of Shop Equipment	2	2	2	2	2	2	2	1	2	17
20	Crafts	4	8	6	4	9	4	2	4	11	52
44	Drafting	25	25	23	23	18	15	27	8	30	194
8	Electricity and Radio	2	2	2	2	0	4	0	0	25	37
6	Finishing	3	3	3	3	2	2	3	2	2	23
4	Foundry, Forge & Heat Tr.	3	3	0	3	1	0	0	1	1	12
13	Machine Shop	3	3	2	3	15	3	0	2	13	44
3	Printing	4	4	0	4	0	0	0	2	2	16
14	Professional	2	2	0	2	0	4	2	11	16	39
2	Refrigeration & Air Cond.	0	0	0	0	0	0	0	4	0	4
5	Upholstering	2	2	2	2	2	0	2	2	1	15
11	Welding	3	3	4	3	6	2	3	6	5	35
13	Wood Turning	2	2	4	2	5	4	4	7	3	33
22	Woodwork	21	21	11	21	9	11	21	11	14	140
204	Totals	90	89	69	71	73	60	92	64	157	771

\*The data for this table was secured from the respective college Catalogs for the school year of 1951-52.

The number of courses was computed for all colleges. Each college course with a different course number or course name was treated as a separate course.



semester hours are listed as drafting, which represents 22 per cent of the courses or 25 per cent of the total semester hours listed. All of the courses involving some woodwork would account for about the same per cent of the total number of courses. Over 50 per cent of the semester hours listed in these catalogs would be drafting or courses dealing with wood. Only one college, covered in this study, listed courses in aircraft. At the same time one other college catalog listed courses in refrigeration and air conditioning. Four college catalogs did not list courses in printing. Three catalogs listed no courses in auto mechanics. The same number of college catalogs listed no courses in electricity or foundry. Two catalogs listed no professional courses. The number of catalogs was reduced to one listing no courses in machine shop, bench or sheet metal, and upholstering. Omitting the courses involving woodworking and drafting, only courses in three of the seventeen areas as herein presented are to be found in all nine catalogs. Those three areas are crafts, care of shop equipment, and welding.

None of the nine catalogs listed courses in more than fifteen of these areas, with only two listing that many areas. Three college catalogs listed courses in fourteen areas. Four, or 44 per cent of the catalogs, listed courses in twelve or 69 per cent of all areas.

Two college catalogs listed less than a total of 70 semester hours of industrial arts courses. Two catalogs listed 71-80 semester hours of industrial arts. Two more listed 81-90 semester hours of industrial arts. One catalog listed 92 semester hours in industrial arts. The ninth college catalog listed 157 semester hours for courses acceptable as industrial arts courses. For the nine state supported colleges, which include The University of Oklahoma, there was a total of 771 semester hours of courses for industrial arts.

The college catalogs have a wide variety of courses in industrial arts. No doubt courses are acceptable from other departments of some colleges or the university as industrial arts. Special industrial arts areas which are not common for all colleges are somewhat equally distributed among these colleges. The courses listed in any one catalog would contribute to a well balanced program for preparation of industrial arts teachers for this state area.

## CHAPTER V

## SUMMARY OR CONCLUSIONS AND RECOMMENDATIONS

This study has covered only a few of the areas related to industrial arts teacher education. Many changes have been made in the past few years. These changes include staff qualifications, departmental expansions of physical facilities, curriculum, certification requirements and other areas. All of those changes have prevailed while this study was in progress. It has been most difficult keeping the data up to date. The only feasible way to complete this study has been the establishment of a basic school year which was 1952-53. The changes for that school year, or prior to that time, have been considered for the areas covered in this study. Very little research has been attempted in any of the areas related to industrial arts teacher education. Only a few studies have been made in other state areas that might be considered as related to the present report. There is little or no readily available material in this state upon which any trend or progress can be based for industrial arts teacher education.

There is a definite need for more research related to the above areas. Industrial arts teacher education

has made great progress within the past few years. Any staff member considered in this study can be proud of that fact. This phase of rapid progress has been a worthy contribution to the Oklahoma educational system. Other studies which might establish these facts, for future reference, would contribute greatly to the above stated contentions.

Recent developments in a fifth year program for six of the state colleges will be worthy of future studies. Colleges included in that fifth year program will be Central, East Central, Northeastern, Northwestern, Southeastern, and Southwestern. Later studies in the evaluation and comparison of those programs to the present graduate programs of Oklahoma A. & M. College and of The University of Oklahoma is recommended.

## BIBLIOGRAPHY

- Central State College Bulletin, Announcements for 1950-51,  
Edmond, Oklahoma: June, 1950.
- Central State College Bulletin, Announcements for 1952-53,  
Edmond, Oklahoma: June, 1952
- East Central State College Bulletin, Catalog Issue  
1949-50, Ada, Oklahoma: 1949.
- East Central State College Bulletin, Catalog Issue  
1952-53, Ada, Oklahoma: 1952.
- Northeastern State College Annual Catalog, Issue 1950-51,  
Talequah, Oklahoma: 1950.
- Northeastern State College Annual Catalog, Issue 1952-53,  
Talequah, Oklahoma: 1952.
- Northwestern State College Bulletin, Catalog Issue  
1948-49, Alva, Oklahoma: 1948.
- Northwestern State College Bulletin, Catalog Issue  
1952-53, Alva, Oklahoma: 1952.
- Oklahoma Agricultural and Mechanical College Bulletin,  
General Catalog Issue 1946-47, Stillwater, Oklahoma:  
May, 1947.
- Oklahoma Agricultural and Mechanical College Bulletin,  
General Catalog Issue 1952-53, Stillwater, Oklahoma:  
May, 1953.
- Oklahoma Agricultural and Mechanical College Bulletin,  
Oklahoma Institute of Technology, Catalog Issue  
1949-50, Stillwater, Oklahoma: December, 1949.
- Oklahoma Agricultural and Mechanical College Bulletin,  
Oklahoma Institute of Technology, Catalog Issue  
1952-53, Stillwater, Oklahoma: December, 1952.
- Panhandle Agricultural and Mechanical College Bulletin,  
General Catalog Issue 1950-51, Goodwell, Oklahoma:  
September, 1950.
- Panhandle Agricultural and Mechanical College Bulletin,  
General Catalog Issue 1952-53, Goodwell, Oklahoma:  
September, 1952.

Southeastern State College Bulletin, Catalog Issue  
1949-50, Durant, Oklahoma: 1949.

Southeastern State College Bulletin, Catalog Issue  
1952-53, Durant, Oklahoma: 1952.

Southwestern State College Bulletin, Annual Catalog,  
Weatherford, Oklahoma: June, 1950.

Southwestern State College Bulletin, Annual Catalog,  
Weatherford, Oklahoma: June, 1952.

University of Oklahoma Bulletin, Catalog Issue 1949-50,  
Norman, Oklahoma: June, 1950.

University of Oklahoma Bulletin, Catalog Issue 1952-53,  
Norman, Oklahoma: June, 1952.

Cole, Duane R., "Industrial Education in Some Colleges  
of Missouri." Unpublished Master's thesis, Iowa  
State College, Ames, 1948. 34 pp.

Doyle, W. T., Executive Secretary, Board of Regents  
of Oklahoma Colleges, "Pertaining to Faculties  
1950-51." Unpublished report sent to all colleges  
under that board of regents, 1951. 4 pp.

Franklin, Marion E., "A Survey of Industrial Arts in  
the State of Oklahoma as a Basis for a Teacher  
Training Program." Unpublished Master's thesis,  
Oklahoma A. and M. College, Stillwater, 1931. 64 pp.

Hunt, DeWitt, C. L. Hill, "Directory of Teachers and  
Administrators of Industrial Education Courses in  
Oklahoma Secondary Schools, Colleges and Universities,  
School Session, 1952-53." Distributed Cooperatively  
by the School of Industrial Arts Education and  
Engineering Shopwork at Oklahoma A. and M. College,  
Stillwater, 1953. 21 pp.

McHenry, Paul T., "A Comparative Study of Industrial  
Arts Education Programs in Forty-two Teachers  
Colleges." Unpublished Master's thesis, Oklahoma  
A. and M. College, Stillwater, 1933. 51 pp.

Nagel, William E., "A Program of Industrial Education for the Municipal University of Wichita." Unpublished Master's thesis, The University of Wichita, Wichita, Kansas, 1948. 60 pp.

Opem, Martin, "Teacher Training in Industrial Arts." Unpublished Master's thesis, The Stout Institute, Menomonie, Wisconsin, 1947. 52 pp.

AN INQUIRY FORM REQUESTING PERSONNEL DATA ABOUT STAFF MEMBERS IN INDUSTRIAL ARTS  
TEACHER EDUCATION DEPARTMENTS IN OKLAHOMA COLLEGES AND THE UNIVERSITY

Ralph A. DeWeber  
Instructor of Industrial Arts  
Central State College  
Edmond, Oklahoma  
Summer, 1951

- Directions: Part A. . . . . In answering the questions, encircle number representing the answer, or fill in blank.  
Part B. Sec. 1. . Circle type of degree earned. Give name and location of college or university.  
Part C. Sec. 1. . Line a - Clock hours equal 50 minutes.  
Sec. 3. . List courses as having different catalog numbers from other courses at that time.  
Part D. . . . . Data from this area will be used as totals or averages for the state.

Part A. Experience

1. Teaching Industrial Arts Years
- |                                      |                           |  |       |
|--------------------------------------|---------------------------|--|-------|
| a. In Junior High School . . . . .   | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |
| b. In Senior High School . . . . .   | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |
| c. In Junior College . . . . .       | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |
| d. In other Senior Colleges. . . . . | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |
| e. In present college. . . . .       | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |
2. Trade
- |                                |                           |  |       |
|--------------------------------|---------------------------|--|-------|
| a. Working full time . . . . . | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |
| b. Teaching part time. . . . . | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |
| c. Teaching full time. . . . . | 0 1 2 3 4 5 6 7 8 9 10 or |  | _____ |

Part B. Education

1. Degree Earned
- |                                   |            |
|-----------------------------------|------------|
| a. A. B. or B. S.; Where _____,   | Year _____ |
| b. M. S. or M. A.; Where _____,   | Year _____ |
| c. Ph. D. or D. Ed.; Where _____, | Year _____ |
2. Semester Hours Credit Earned
- |  |            |
|--|------------|
| a. Undergraduate Industrial Arts . . . . .     | _____      |
| b. Graduate Industrial Arts. . . . .           | _____      |
| c. Graduate Trade and Industrial Education . . | _____      |
| d. All graduate work beyond last degree. . . . | _____      |
| e. Last college attended; Where _____,         | Year _____ |

Part C. Teaching

1. Industrial Arts, Spring Semester 1951
- |  |            |
|--|------------|
| a. Clock hours per week; Theory _____, | Lab. _____ |
| b. Number of different courses _____   |            |
2. Other Courses, Spring Semester 1951
- |  |            |
|--|------------|
| a. Clock hours per week; Theory _____, | Lab. _____ |
| b. Number of different courses _____   |            |



Personnel Data (Continued)

- 3. Total Industrial Arts Courses
  - a. You have taught at present college or university \_\_\_\_\_
- 4. Revised Schedule

Courses Taught Fall Sem. 1950 No. and Name	Sem. Hrs. Credit	Clock Hours per Week		No. of Students	
		Theory	Lab.	Enrolled	Drops or Withdrawals

Courses Taught Spring Sem. 1951	Sem. Hrs. Credit	Clock Hours per Week		No. of Students	
		Theory	Lab.	Enrolled	Drops or Withdrawals

Part D. General

- 1. Salary Bracket. Per year. Check one.
 

Less than \$3200 _____	\$4001 - \$4400 _____
\$3201 - \$3600 _____	\$4401 - \$4800 _____
\$3601 - \$4000 _____	More than \$4800 _____
- 2. Present Age. Check one.
 

20 - 30 \_\_\_\_\_, 30 - 40 \_\_\_\_\_, 40 - 50 \_\_\_\_\_, 50 - 60 \_\_\_\_\_, over 60 \_\_\_\_\_
- 3. Present Professional Rank. Check one.
 

Assistant \_\_\_\_\_, Instructor \_\_\_\_\_, Assistant Professor \_\_\_\_\_, Associate Professor \_\_\_\_\_, Professor \_\_\_\_\_.
- 4. Number of Publications
  - a. Books . . . . . \_\_\_\_\_
  - b. Bulletins . . . . . \_\_\_\_\_
  - c. Magazine articles \_\_\_\_\_

Central State College  
Edmond, Oklahoma

June 25, 1951

Dear Sir:

As a partial fulfillment of the requirements of the graduate school of Oklahoma Agricultural and Mechanical College, I am making a survey of the industrial arts teacher education program in Oklahoma. This study will include only the eight Oklahoma colleges and the university with a curriculum for the Bachelor of Science degree with an industrial arts major.

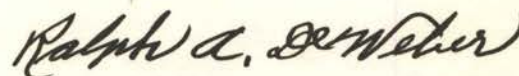
I have completed a library study of similar surveys made in other states. Copies of all available catalogs have been studied. There is little uniformity of desired information in those catalogs. I also hope to visit all of the departments considered in this survey. Without your cooperation the picture will not be complete.

Due to the personal nature of some of the questions, may I assure you that no information will be divulged by me that might be a reflection on any individual, department, or institution.

May I ask you to fill out the enclosed questionnaire and return to me within the next few days. I hope to submit the findings of this survey in time for graduation at the end of this summer semester. A self-addressed, stamped envelope is enclosed for your convenience.

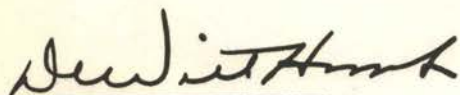
I shall be happy to inform all respondents of my findings. Your cooperation will be greatly appreciated.

Sincerely,



Ralph A. DeWeber,  
Instructor of Industrial Arts  
Central State College

Approved by:



DeWitt Hunt  
Thesis Adviser and Head  
Department of Industrial Arts Education  
and Engineering Shopwork

REPORT TITLE: Some Factors Related to Industrial  
Arts Teacher Education in Oklahoma

NAME OF AUTHOR: Ralph A. DeWeber

REPORT ADVISER: Cary L. Hill

The content and form have been checked and approved by the author and thesis adviser. "Instructions for Typing and Arranging the Thesis" are available in the Graduate School office. Changes or corrections in the thesis are not made by the Graduate School office or by any committee. The copies are sent to the bindery just as they are approved by the author and faculty adviser.

NAME OF TYPIST: Zelma K. Faulkner