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THE DEVELOPMENT AND TRENDS OF THE GENERAL SHOP
IN THE STATE OF KANSAS

A Thesis Submitted to the Graduate Division in Partial
Fulfillment of the Requirements for the
Degree of Master of Science

By

Noel Farris Long

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KANSAS STATE COLLEGE OF PITTSBURG

Pittsburg, Kansas

June, 1961

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The writer wishes to express his sincere appreciation to Dr. Forest L. Penny for his advice and guidance in this research project.

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ABSTRACT

Statement of the Problem

The problem was to determine the historical background and trends of the general shop in the state of Kansas.

Sources of Information

Sources of information were secured in a survey of all accredited school districts in the state of Kansas by the use of a questionnaire. Information was taken from interviews with individuals having been influential in advocating and using the general shop as an organizational procedure and from letters which were sent to Kansas colleges and the junior colleges which were known to use a general shop in their industrial arts programs.

Summary

The term "general shop" has no definite origin but it is the most commonly accepted term. The general shop came into being early in the twentieth century on the national scene and indications are that the earliest shop in Kansas was organized in the late 1920's or the early 1930's.

Instructional areas offered and methods of organization and application vary considerably over the state. Some officials indicated that a coeducational program would be good.

Opinions and approval of the general shop in the state of Kansas are good in the majority of districts.

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CHAPTER I

INTRODUCTION

Purpose of the Study

The purpose of this study was to determine the historical background and modern trends of the "General Industrial Arts" or the "General Shop" programs in the state of Kansas with national influences.

Definition of Terms

The "Comprehensive General Shop, or Composite General Shop, Laboratory of Industries, General Shop, and General Industrial Arts" is defined as a school shop designed and equipped to offer two or more areas of instruction in industrial arts. Such a shop may contain facilities for teaching drawing, woodworking, metalworking, graphic arts, and electricity, or a similar combination of teaching areas. It is sometimes called a general shop, multiple-activity shop or laboratory of industries.¹

Value of the Study

This study may be of significance in the interest of those institutions which want to follow the trends of the

¹Definitions of Terms in Vocational and Practical Arts Education (Washington: American Vocational Association, 1954), p. 8. (Hereinafter cited as Definitions of Terms.)

general shop as it has evolved in determining what areas merit attention for inclusion into or reduction from this multiple activity organization insofar as new methods of instruction, classroom facilities, new materials, tools, machines, processes, etc., can be covered by responses received in questionnaires.

Limitations of the Study

The limitations of this study were bound by data available upon a statewide basis. Since no great amount of printed material had been located, information on developments were effected by the percentage of returns from the questionnaire. This study was limited to the observation of the historical background of the general shop and to a survey of opinions of items that warrant attention which were somewhat influential in prescribing the nature of the areas which were included in the programs.

Nature of the Study

The nature of this study was coherent to, and made evident by, determination of the following factors:

1. How the general shops were organized and by what names they were officially recognized throughout the state.
2. Percentage of industrial arts programs covered by the general shop.
3. Geographical areas in which general shop organization prevailed.

4. Whether or not individuals responsible for the organization of local general shop programs had formal education for this purpose.

5. Sources of recommendations for general shop organization.

6. Areas of instruction included and whether or not general shop programs are coeducational.

7. Comparison with other types of general shop programs and levels of general shop programs.

8. The most predominant problems in maintaining a general shop program.

9. Modern trends having effect on areas of instruction.

Sources of Data and Methods of Investigation

Sources of information for this study came from documentation of literature supplied by the State Department of Public Instruction, Topeka, Kansas; the Kansas State Board for Vocational Education, Topeka, Kansas; The American Vocational Association, Washington, District of Columbia; Porter Library, Kansas State College of Pittsburg, Pittsburg, Kansas; Dr. Forest L. Penny and Professor E. W. Baxter, Industrial Education and Art Department, Kansas State College of Pittsburg, Pittsburg, Kansas.

Other sources of information were taken from an interview with Dr. O. A. Hankammer, early advocate of the general shop program and former chairman of the Industrial Education

and Art Department, Kansas State College of Pittsburg, Pittsburg, Kansas. Another interview was held with L. B. Carlyon, Plant Superintendent and part-time general shop instructor, at Kansas State College of Pittsburg, Pittsburg, Kansas.

Letters were sent to every college and the junior colleges in the state which were known to have a general shop and another letter was sent to Raymond J. Coltharp, Chairman of the Industrial Art Department, Memphis State College, Memphis, Tennessee. Mr. Coltharp is a former general shop instructor in one of the early general shops at Burns, Kansas.

A total of five hundred and eighty-seven questionnaires were mailed and two hundred and ninety-four, or very slightly over fifty per cent, were returned. Junior and senior high schools were also solicited for information in the survey. When it was known that a district had more than one school, the questionnaire was sent to one individual representing the district.

Questionnaires were not sent to school districts which were known to have no "General Shop" in their curriculum. This procedure was followed only in the case of Labette County Community High School, Altamont, Kansas, and school districts which were not accredited. The Altamont High School system does not have an industrial arts program.

CHAPTER II

BACKGROUND OF THE GENERAL SHOP IN THE UNITED STATES AND IN KANSAS

Establishment of the General Shop in the United States

It is difficult to determine the origin of the name "General Shop." After educators had conceived of the idea of carrying on more than one activity concurrently in industrial arts, several names were used as they described what they were thinking about and trying out. A review of the literature will reveal that Earl L. Bedell, who was then a teacher in the Detroit Public Schools, used the term in the title of an article that was published in 1923; the title was "Household Mechanics and the General Shop," which was published in Industrial Arts and Vocational Education.¹

Louis V. Newkirk and George G. Stoddard wrote the first professional book describing methods and techniques for organizing multiple activity programs in general industrial arts. This book, entitled The General Shop, was published in 1929 by the Charles A. Bennett Company (formerly, The Manual Arts Press).²

¹G. Harold Silvius and Estell H. Curry, Teaching Multiple Activities in Industrial Education (Bloomington, Illinois: McKnight and McKnight Publishing Company, 1956), p. 18.

²Ibid., p. 19.

There have been several attempts to call the general shop by other names, but to this date this seems to be the most accepted term. Mays made this observation: "The term 'General Shop' has continued to be the most commonly used designation of the organization characterized by the offering of several types of shop experiences in one shop under the instruction of one teacher."³

The general shop, which is a room equipped and organized so that students may participate in various activities and have experiences with a variety of tools, equipment, and materials, is the result of the thinking, the trials, and the errors of many persons during the past half century.⁴

Handwork in public schools in America is only about one hundred years old and only during the last fifty years have multiple activities been taught in a single shop.⁵

The general shop came into being with the advent of the junior high school. To substantiate this, Mays has said:

Indeed it seems clear that originally the general shop was little more than the industrial education phase of the junior high school movement. The educational theories that brought to birth the junior high school also pronounced the demand for some kind of program of diversified shop experience for junior high school pupils.⁶

³Ibid., p. 19.

⁴Ibid., p. 2.

⁵Ibid.

⁶Ibid., p. 8.

Reasons advanced by educators for changing from an eight-four to six-three-three educational programs are:

1. To hold students in school longer with a more interesting, diversified program.
2. To focus more attention on individual differences and provide programs more nearly tailored to the needs of the individual child.
3. To provide greater variety of activities which in turn provides more opportunity for exploration.
4. To provide a more adequate program of educational and vocational guidance.
5. To provide for more suitable learning conditions for adolescent children.⁷

Another reason advanced for the beginning of the junior high school was the fact that in the early years of the twentieth century, the nation began moving from a rural to an industrial urban nation. State and national legislation prohibiting child labor also caused many children to remain in schools who could otherwise have gone to work at about this age.⁸

The general shop was conceived and took form from 1906 to 1917. During this period, several individuals began teaching more than one activity at the same time. Credit is given to Fredrick G. Bonser and his colleagues for conducting the first general shop at State Teachers College, Macomb, Illinois, in 1906. It was here that Bonser experimented

⁷Ibid., p. 9.

⁸Ibid.

with rotating groups of students through experience in shop, drafting, and home economics.⁹

In 1913 John H. Trybom, Director of Vocational Education for the Detroit Public Schools, called a meeting of his teachers and urged them to supplement woodworking with other lines of construction work. This resulted in encouraging a number of teachers to add one additional activity. These new kinds of work included electricity, sheet metalwork, lock maintenance, and furniture repair.¹⁰

Functional Possibilities of a General Shop

The criticism of "Manual Training" beginning in the nineties virtually sealed the doom of this work by 1900. Bennett, in naming a building in 1896, had it called "Manual Arts" and it may be postulated that this term would be commonly accepted today if it were not for concepts that lie back of the general shop and how it may function. Protagonists of the idea offer countless reasons why the general shop is good, others have pointed out its faults which are not to be denied, in some instances, where the plan has not been properly conceived. The possibilities of general shop work shown at the Ohio State Fair indicated that the course would be built around three main concepts which are claimed as

⁹Ibid., p. 11.

¹⁰General Industrial Arts Laboratory Students, "General Shop Possibilities," (Unpublished symposium, Columbus, Ohio: Ohio State Fair, 1929), pp. 3-4.

functional outcomes for youngsters twelve to fifteen years of age and possibly older.¹¹

The first is that of exploration made possible immediately when more than one industry becomes represented in the course of study. The complexity of the present industrial-social order and the multiplicity of vocational careers resulting, almost demand this concept. That is why the general shop is now seen not only in cosmopolitan junior high schools, but in rural and continuation schools as well. There is no hard and fast age limit. We have had youngsters (both boys and girls) trying out things in our laboratory at the university who were from ten to twenty years of age, all of them finding out what they liked to do. Some of the best results have come from youngsters of senior high age, but normally the period of exploration is assumed to start with early adolescence in the junior high school. University students find the experience useful in discovering what kind of shop work they would like to teach.¹²

The second concept of avocational interests is closely related to the first and is applicable to any age. Its value here lies in the fact that many interests often point the way to careers. The third concept is a modern and educative one, namely, the making of "more intelligent choosers and users of

¹¹Ibid., p. 3.

¹²Ibid., pp. 3-4.

the products of industry," commonly known as the consumer's purpose.¹³

General shops are used effectively to offer short exploratory courses in high schools, both as general industrial arts activities and for basic exploration and investigation leading toward occupational selection.¹⁴

A misunderstanding of the basic purpose of the general shop, as indicated in the preceding paragraph, which is to acquaint students with a variety of tools, processes, materials, etc., has caused critics of this program to think that the duties are too demanding of one teacher. Most of them stating that it is not probable that an individual would be qualified to teach so many instructional areas properly.

Dr. O. A. Hankammer, now retired Chairman of the Industrial Education and Art Department of Kansas State College of Pittsburg, Pittsburg, Kansas, and an early enthusiast for the general shop, proposed a general shop for the industrial arts program at the College during the administration of Dr. William A. Brandenburg, former president of the College. Dr. Brandenburg expressed a disbelief for the prospect of obtaining a qualified teacher who could fulfill the responsibilities of teaching several areas. Brandenburg called the general shop

¹³Ibid.

¹⁴Emanuel E. Eriksen and Kermit Seefeld, Teaching the Industrial Arts (Peoria, Illinois: Charles A. Bennett Company, 1946), p. 126.

an "educational fad." He, like so many others, had the feeling that an instructor in a general shop should be a qualified tradesman in each of the instructional areas of the general shop. It was not until 1951 that a general shop program was started at Kansas State College of Pittsburg, Pittsburg, Kansas.¹⁵

Ohio State University, Columbus, Ohio, has been instrumental in the development of the foundations for the general shop. Figure 1 on the following page contains a copy of a floor plan which is illustrative of the thinking and planning for classroom facilities and equipment in an early general shop which was presented at the Ohio State Fair in 1929.

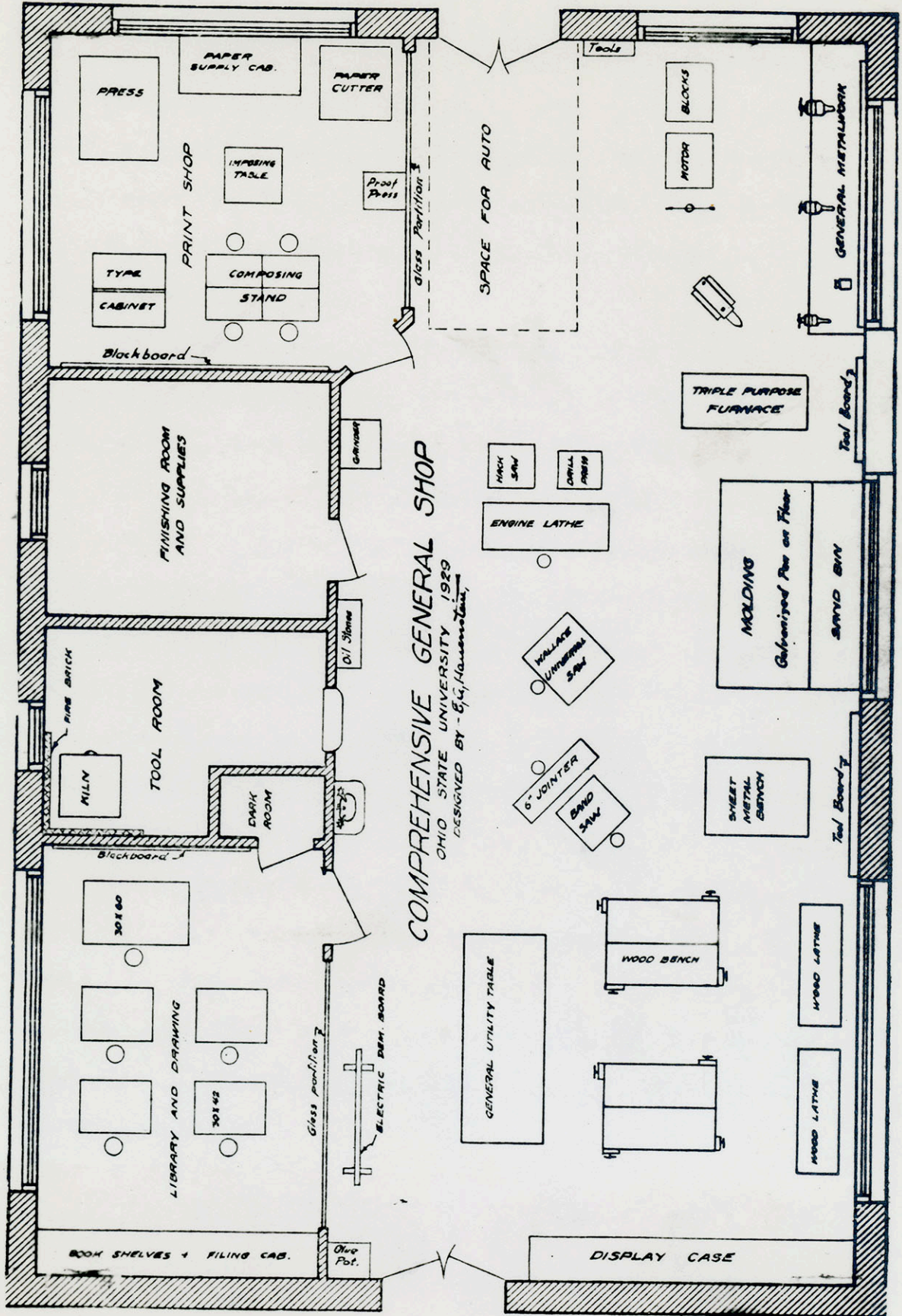
It has been indicated in a doctoral dissertation, which reported the development of the general shop, that up until 1930, general shops were more prevalent in the Middle Atlantic states.¹⁶

Development of the General Shop in the State of Kansas

One of the early general shops in Kansas was started at Neodesha, Kansas, by L. B. Carlyon, a graduate of Kansas State College, Pittsburg, Kansas. Carlyon, inspired by Dr. Hankammer, went to Neodesha in 1933. When Carlyon took over

¹⁵Dr. O. A. Hankammer, personal interview with the writer, Pittsburg, Kansas, February 4, 1961.

¹⁶Silvius and Curry, op. cit., p. 7.



GENERAL SHOP FLOOR PLAN

Fig. 1. 17 General Industrial Arts Laboratory Students, op. cit., p. 7.

the responsibilities as industrial arts teacher, the program consisted of drafting and hand woodwork. After the industrial arts program was changed into general shop organization, the program at Neodesha consisted of woodwork, metalwork, welding, foundry, forging, sheetmetal, artmetal, benchmetal and mechanical drawing.

Mr. Carlyon was in Neodesha for about ten years until World War II demanded his services as an industrial defense worker. The general shop is still operating in Neodesha.

It is a conviction of Mr. Carlyon, (who has since the aforementioned period during the war, taught general shop at Kansas State College of Pittsburg, Pittsburg, Kansas), that the term "General Shop" should be discarded and the program should be recognized by the term "General Industrial Arts."¹⁸

Another early general shop in the state of Kansas was started by Raymond J. Coltharp, Chairman of the Industrial Arts Department, Memphis State College, Memphis, Tennessee. Coltharp organized a general shop at Burns, Kansas, in 1937. Instructional areas included in the general shop the first year at Burns, were: planing, woods, metals, concrete and electricity. Coltharp indicated that another early general shop was organized by Schuyler Burris, but did not know where it was located.¹⁹

¹⁸L. B. Carlyon, personal interview with the writer, Pittsburg, Kansas, December 30, 1960.

¹⁹Raymond J. Coltharp, personal letter to the writer, February 22, 1961.

Age of General Shop Programs
in the State of Kansas

It was impossible to determine the location of the first school district in Kansas to use the general shop as an organizational procedure in the industrial arts program due to the fact that it has not been recorded and information secured from individuals contacted was vague. Returns in the responses on the questionnaire survey indicated that general shop programs vary in age from about thirty years to one year of age. A large number of the general shops in high schools and junior high schools are relatively new with about forty-one per cent ranging from one to eight years of age and about fifty-one per cent ranging from one to fifteen years of age.

An effort was made to determine the age of general shop programs in colleges in the state of Kansas. Letters with a form attached seeking the desired information were sent to six colleges in the state which were known to use general shop organization in the industrial arts program. According to responses in four returns from these college officials, it appears that the oldest college level general shop program was organized in 1937 at Emporia State Teachers College, Emporia, Kansas. Instructional areas included in the first year the general shop was organized at Emporia were: art metal, bench metal, hand woodworking, mechanical drawing, printing, and sheet metal.

Summary

It was difficult to determine how the term, "General Shop," used for designating a multiple activity area came about, but it is the most used term.

The general shop had its origin about 1910, with many individuals over the nation teaching more than one area in single classrooms during a single class period.

Although sources of information have been somewhat indefinite, indications are that L. B. Carlyon, Plant Superintendent at Kansas State College of Pittsburg, is responsible for the organization of one of the earliest, if not the earliest of the general shop programs in the state of Kansas at Neodesha, in 1933.

CHAPTER III

ORGANIZATION OF THE VARIOUS GENERAL SHOPS IN THE STATE OF KANSAS

Names of Various General Shops in the State of Kansas

General shop programs are recognized by different names throughout the state. The term "General Shop" was the most frequently used term but some school officials indicated the selection of other titles for this type of organization. These included: "General Industrial Arts, Comprehensive General Shop, and Composite General Shop," all of which were listed on the questionnaire used in the statewide survey, as shown in Appendix A. Other names which were inserted by school personnel completing the forms were as follows: "Arts and Crafts, Elementary Shop, Farm Shop, Shop, Shop I, Shop I-II, Industrial Arts Shop, Industrial Arts I-II-III, and Unit General Shop." Table I on the following page lists the number of personnel who indicated the use of each of the terms to name their programs.

The majority of the school districts had other types of industrial arts shops in their industrial arts programs with the general shop. Returns from the survey were received from one hundred and seventy-nine members of school personnel who stated that their districts had a general shop in the

TABLE I

NUMBER OF SECONDARY SCHOOL DISTRICTS
USING EACH TITLE TO NAME PROGRAMS

Names of Programs	Number of Secondary School Districts Using Each Title
General Shop	108
General Industrial Arts	46
Composite General Shop	2
Comprehensive General Shop	2
Industrial Arts Shop	2
Shop	2
Shop I	2
Arts and Crafts	1
Elementary Shop	1
Farm Shop	1
Industrial Arts I-II-III	1
Shop I-II	1
Unit General Shop	1
Laboratory of Industries	0

industrial arts program. Of the reports, one hundred and seventy indicated the percentage of the total industrial arts programs which were carried on in the general shop. Results of these responses on the questionnaire are shown in Table II.

TABLE II

PERCENTAGE OF TOTAL INDUSTRIAL ARTS PROGRAMS
CARRIED ON IN THE GENERAL SHOP

Percentage of Industrial Arts Programs	Number of Secondary School Districts Using Each Percentage
100	65
90	1
75	23
66	6
50	19
40	2
33	15
30	1
25	28
20	3
16	1
12½	1

Some of the larger or wealthier school districts where educational expenses are not so appalling, use the "Limited General or Unit" type of shop entirely in the industrial arts program. The limited general shop is defined as an organizational plan in which the activities are centered around one

type of material or occupation; examples are general wood-working, general metalworking, and graphic arts.¹

A unit shop is defined as a school shop designed and equipped to provide training in a single industrial occupation, or a single kind of material or type of work.²

The general shop prevails in the small town or rural schools where a variety of industrial arts instructional areas is desired, according to responses on the questionnaire. Examples of the larger districts using the limited or unit shops are Wichita, Lawrence, and Manhattan. Some of the larger districts such as Arkansas City and Coffeyville do have general shops in the junior high schools but do not have them in the senior high schools. One school official, in particular, from Manhattan expressed a desire for such a program in the junior high school but at the same time stated a dislike for this type of organization for the senior high school. Shawnee Mission high school district uses this latter type of organization, with general shops in the junior high schools, which is preferred by instructors in Manhattan, Arkansas City, and Lawrence.

The majority of parochial schools do not have a general shop or do not have any type of a shop program. Returns were received from school personnel representing six private secondary schools and only one stated that the district had a

¹Silvius and Curry, op. cit., p. 460.

²Definitions of Terms, op. cit., p. 8.

shop. This one was not open for lack of an instructor but officials are hopeful of having it open the fall semester of the 1961-1962 school year.

Some of the small secondary school districts are having difficulty maintaining their general shop programs for lack of financial support, according to the responses. One individual stated that the general shop in his district was closed four years ago for lack of a well qualified instructor. Another stated that the general shop would probably be closed in that district because of the emphasis being placed on the mathematics and science courses. On the other hand, some of the school personnel are optimistically looking forward to starting a general shop in their industrial arts programs this coming school year, 1961-1962. A district that is characteristic of this, is the Newton, Kansas, district which is planning a general shop for the junior high school.

Geographical Location of General Shops
in the State of Kansas

Mrs. Mary Gatchett of the Kansas State Department of Public Instruction, Topeka, Kansas, stated that ninety per cent of the accredited secondary school districts in Kansas have a general shop in their curriculum. However, the returns in the survey indicated that only sixty-one per cent have a general shop of some type.³

³Mrs. Mary Gatchett, personal interview with the writer, Topeka, Kansas, October 21, 1960.

Figure 2 on the following page illustrates the locations in Kansas where officials of secondary school districts responded to the questionnaire. The position of the x's are in cities which do have general shop and the o's represent cities or communities which do not have general shop.

Education of School Personnel Responsible for Organizing
General Shops for Secondary School Districts

Responses on the questionnaires indicated that the general shop programs in secondary school districts in the state of Kansas have been organized by individuals having formal education for the purpose of organizing industrial arts programs and that general shops have also been organized by personnel who had no formal education for this purpose. Returns also indicated that in some cases it was possible that individuals had formal education but it was not known for certain in these cases. Table III shows the number of secondary school districts which had general shop programs that were organized by personnel with formal education, the number of school districts which had programs that were organized by personnel possibly having formal education, and the number of school districts having general shop programs that were organized by personnel not having formal education for the purpose of organizing industrial arts programs.

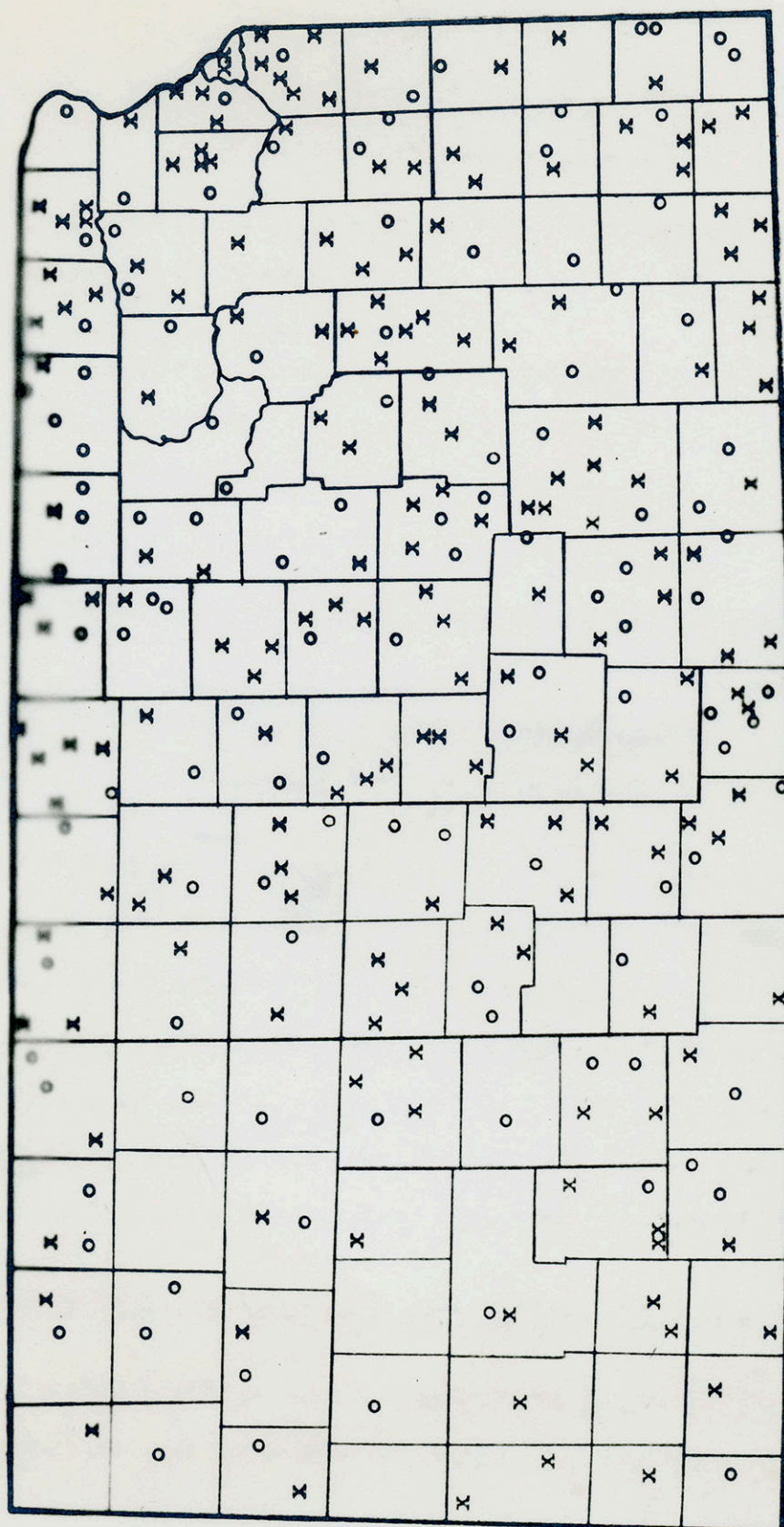


Fig. 2.

GEOGRAPHICAL LOCATION OF RESPONSES TO THE QUESTIONNAIRE

- x Denotes Responses Having General Shop
- o Denotes Responses Not Having General Shop

TABLE III

NUMBER OF SECONDARY SCHOOL DISTRICTS HAVING GENERAL SHOPS
ORGANIZED BY INDIVIDUALS HAVING, POSSIBLY HAVING,
OR NOT HAVING FORMAL EDUCATION

Educational Background of Personnel Who Organized General Shops	Number of Secondary School Districts Reporting
Formally Educated	103
Possibly Formally Educated	59
Not Formally Educated	17

Local and State Influences for
General Shop Organization

Recommendations for general shop or general industrial arts shop programs came from a variety of sources. From one hundred and seventy-nine replies in the survey, five guidance counselors, eighty-six administrators, eleven local officials, four state officials, five patrons, four students, forty instructors, two department heads, and twenty-two unknown individuals, have recommended general shop organization.

Individuals Responsible for General Shop Organization

The one hundred and seventy-nine general shops were organized by one hundred and seven instructors, fifty-one

administrators, seventeen boards of education, and two guidance counselors from responses on the questionnaire.

Original and Current Instructional Areas Taught

The general shop programs throughout the state of Kansas have had significant changes between the instructional areas which were offered originally and the instructional areas that are currently taught. Table IV on the following pages shows the number of areas of instruction which were included in the initial general shop offerings and the number of instructional areas in the current programs based on the responses to the questionnaire.

Methods of Instructional Organization

The general shop was taught on a yearly basis in the majority of districts. Of one hundred and seventy-six returns in the survey, one hundred and forty-two stated that the general shop was taught on a yearly basis, thirty-three stated that it was taught on a semester basis, and one individual from a district stated that the general shop was taught on a nine weeks basis for credit.

Classroom procedures, insofar as changing from instructional areas vary considerably over the state. Fifty-three secondary school districts have general shop programs organized to use the method of teaching the areas simultaneously all year, rotating the students from area to area.

TABLE IV

INITIAL AND CURRENT INSTRUCTIONAL AREAS IN
SECONDARY SCHOOL GENERAL SHOP PROGRAMS

Instructional Areas	Initial Areas	Current Areas
<u>Areas Appearing in Questionnaire</u>		
Art Metal	24	31
Auto Mechanics	31	43
Bench Metal	44	57
Book Binding	0	1
Driver's Education	25	33
Electricity	35	50
Finishing	59	98
Free-Hand Drawing	29	46
Hand Woodworking	113	125
Leather Craft	29	34
Machine Metalwork	21	44
Machine Woodwork	61	95
Masonry	7	10
Mechanical Drawing	92	120
Photography	2	6
Plastics	29	35
Printing	4	5
Sheet Metal	39	60
Small Gasoline Engines	16	29
Welding	63	99

TABLE IV (Continued)

INITIAL AND CURRENT INSTRUCTIONAL AREAS IN
SECONDARY SCHOOL GENERAL SHOP PROGRAMS

Instructional Areas	Initial Areas	Current Areas
<u>Areas Written in by Respondents</u>		
Auto Mechanics Expanded	0	1
Blue Print Reading	0	1
Body and Fender Repairs	0	1
Care of Hand Tools	1	0
Car Painting	0	1
Carpentry	1	1
Electricity Expanded	0	1
Elementary Drafting	0	1
Forging and Foundry	9	15
Furniture Design	0	2
Glass Etching	1	0
Glazing	1	3
General Crafts	1	1
Heat Treating	1	0
Home Economics Exchange	0	1
Interior Decoration	0	1
Metal Lathe	5	5
Plumbing	2	2
Radio	0	1
Refinishing	0	1
Shop Maintenance	1	3
Weaving	0	1
Wood Carving	0	1
Wood Technology	1	1

Another method used in the general shop programs of thirty-eight school districts was teaching the areas simultaneously all year, and allowing the students to choose certain areas. Seventy-two respondents used the method of teaching one area at a time, rotating to another area after a certain period of time. Other methods used were teaching simultaneously all year until students had completed required projects and then each student was permitted to choose an area. The last method of instructional organization which was reported by an official was that areas were selected by the instructor.

The tabulation in Table V shows the number of districts using each of the areas in an advanced program based on the responses. This Table illustrates the significance of the areas that were added by indicating the number of secondary personnel which have pointed out each area as a significant addition. Returns from the survey indicated that there were sixty-seven secondary school districts using the instructional areas listed in Table V in advanced or second year general shop programs.

College Level General Shop Programs

In determining instructional areas and ages of college level general shop programs, a letter with an information sheet attached, as shown in Appendix B, was sent to officials representing colleges and junior colleges using a general shop in their industrial arts programs. Colleges that were

TABLE V

AREAS OF INSTRUCTION IN ADVANCED PROGRAMS
AND SIGNIFICANT ADDITIONS TO PROGRAMS

Instructional Areas	Number of School Districts Using Areas in Advanced Programs	Number of School Officials Who Considered Areas as Significant Additions
<u>Areas Appearing in Questionnaire</u>		
Art Metal	4	9
Auto Mechanics	18	18
Bench Metal	4	14
Book Binding	1	1
Driver's Education	3	11
Electricity	9	19
Finishing	16	18
Free-Hand Drawing	3	10
Hand Woodworking	13	9
Leather Craft	8	18
Machine Metalwork	21	20
Machine Woodwork	43	19
Masonry	2	2
Mechanical Drawing	34	28
Photography	2	4
Plastics	3	14
Printing	0	1
Sheet Metal	7	17
Small Gasoline Engines	8	32
Welding	35	44

TABLE V (Continued)

AREAS OF INSTRUCTION IN ADVANCED PROGRAMS
AND SIGNIFICANT ADDITIONS TO PROGRAMS

Instructional Areas	Number of School Districts Using Areas in Advanced Programs	Number of School Officials Who Considered Areas as Significant Additions
<u>Areas Written in by Respondents</u>		
Auto Mechanics Expanded	0	0
Blue Print Reading	0	0
Body and Fender Repairs	0	0
Care of Hand Tools	0	0
Car Painting	0	0
Carpentry	0	3
Electricity Expanded	0	1
Elementary Drafting	0	1
Forging and Foundry	0	4
Furniture Design	0	2
Glass Etching	0	0
Glazing	0	0
General Crafts	0	1
Heat Treating	0	1
Home Economics Exchange	0	0
Interior Decoration	0	1
Metal Lathe	0	0
Plumbing	0	0
Radio	0	1
Refinishing	0	0
Shop Maintenance	0	2
Weaving	0	0
Woodcarving	0	0
Wood Technology	0	0

solicited in seeking this information were Kansas State Teachers College, Emporia, Kansas; Bethel College, Newton, Kansas; McPherson College, McPherson, Kansas; Friend's University, Wichita, Kansas; Hesston College, Hesston, Kansas; and Kansas State College of Pittsburg, Kansas. Table VI shows the number of college officials who indicated the use of each of the instructional areas in the beginning programs and instructional areas that are currently used in the college general shops in the state of Kansas.

With the exception of the general shop program at Emporia State Teachers College, secondary school general shop programs as a whole, have been organized for a longer period of time than college general shops, according to returns in the survey questionnaire.

Summary

General shops in the state of Kansas are recognized by various terms. The term "General Shop" is the most prevailing term. Other such terms as "General Industrial Arts, Comprehensive General Shop, and Composite General Shop" are terms recognized by authorities and used by other officials. Some officials or school personnel indicated that they had selected terms of their own origin to name this multiple activity organization. Such terms were: "Elementary Shop, Shop, Shop I, Industrial Arts Shop, and Unit General Shop," and have been selected by officials not using the terms recognized by authorities.

TABLE VI

INSTRUCTIONAL AREAS INITIALLY AND CURRENTLY INCLUDED
IN COLLEGE GENERAL SHOP PROGRAMS

Instructional Areas	Number of College Officials Reporting Initial Areas	Number of College Officials Reporting Current Areas
Art Metal	2	3
Auto Mechanics	0	1
Bench Metal	3	3
Book Binding	1	1
Driver's Education	0	1
Electricity	2	3
Finishing	1	2
Free-Hand Drawing	0	1
Hand Woodworking	4	4
Leather Craft	2	4
Machine Metalwork	2	3
Machine Woodwork	3	4
Masonry	0	0
Mechanical Drawing	4	4
Photography	1	1
Plastics	2	4
Printing	3	2
Sheet Metal	3	3
Small Gasoline Engines	0	0
Welding	1	3

From one hundred and seventy-nine returns, sixty-five Secondary school personnel indicated that the general shop was used as one hundred per cent of the district's industrial arts program. While the remaining one hundred and fourteen personnel listed the general shop as various percentages of

the total industrial arts program.

Larger school districts are inclined to use the "Limited General or Unit Shops" in high schools altogether with no general shop organization at any level. However, some of the larger districts do have a general shop in their junior high schools. The general shop prevails in the small community school districts.

Sixty-one per cent of the total returns from school personnel indicated the use of a general shop in the industrial arts programs of that many school districts.

College and secondary school officials have indicated that instructional areas have been changed. Instructional areas used in the initial general shop offerings differ in some cases from those currently used. Secondary school personnel also indicated that classroom procedures in regard to changing from area to area during the school term vary considerably.

Sixty-seven secondary school personnel indicated the use of a second year or advanced program and designated the instructional areas that were used in the programs.

Returns indicated that as a whole, the secondary school general shop programs have been organized for a longer period of time than the college general shop programs.

CHAPTER IV

ADVANTAGES, OPINIONS, AND ACCEPTABILITY OF GENERAL SHOP PROGRAMS

Opinions Regarding General Shop Programs

The following characteristics are to a large degree responsible for the popularity of the general shop in presenting the industrial arts program.

1. It is well adapted to the organization of industrial arts content in the light of the general education, exploration, and guidance aims of the junior high school.
2. It permits students to be treated as individuals with due respect for their differences in interest and capacity.
3. It enables a student to discover his abilities and aptitudes through manipulation of a wide range of materials, tools, and processes.
4. It offers an economical way to gain experience in many activities.
5. It makes possible an adequate industrial arts program for the small school.
6. It stimulates the setting up of a well-planned shop and a carefully-organized teaching content.
7. It increases teacher efficiency.¹

Controversial Advantages of the General Shop

1. A better learning climate is created in a general shop situation where students have more opportunity to work with their natural interests.

¹Louis V. Newkirk and George D. Stoddard, The General Shop (Peoria, Illinois: The Manual Arts Press, 1929), pp. 15-16.

2. Better teaching results because the teacher in a general shop situation must be careful in organizing, planning, and presenting instruction.

3. Disciplinary problems are kept to a minimum as a result of the broad interest approach.

4. The involved organizational pattern calls for a college-trained professional teacher. Those who have been recruited from the industries for trade classes with limited professional preparation in the theory, organization, and presentation of instruction have difficulty with this more complex method.²

Arguments Against the General Shop Organization

Even after several years of general acceptance, there are those who hasten to point out these disadvantages for the teaching situations where there are multiple activities in the industrial arts and vocational subjects:

1. Administrators often take the position that the organization is so flexible that there should be little concern if the class size is increased. The variety and nature of the work stations in a general shop makes the maximum number of students which may be conveniently accommodated difficult to interpret.

2. Teacher effort required to adequately prepare long-term and project plans, and teaching aids for such a wide variety of projects is beyond what should be expected of a teacher.

3. Maintaining the tools and equipment in a shop where there are multiple activities requires considerably more teacher time than seems necessary where instruction is carried on with the unit shop organization.

4. School systems find it difficult to employ beginning teachers qualified to teach multiple activity subjects.

²Silvius and Curry, op. cit., pp. 26-27.

5. The smaller school systems are often unable to provide the necessary supervision to help teachers, trained in unit shop methods, adjust to the method of organizing and presenting instruction where multiple activities are desired.

6. Where the basic instruction has been organized to be presented to the entire class at one time, it is pointed out that the interval of time between the teacher's demonstration and the actual work by the students is often too great.

7. With such a diversity of activity, especially where the class is large, it is difficult for the teacher to keep track of the individual progress of each student.

8. By encouraging experiences in a number of activities, there is not time to develop any reasonable degree of skill in any one area. There are those who believe that a life-long interest in one of the industrial arts activities will come from depth, and not breadth.

9. In schools where the older shops have been converted from unit to general shops, the working conditions are often too crowded with the necessary variety of materials, tools, and equipment.

10. As major activities are added to be carried on concurrently in an industrial arts or vocational subject, the problem of getting the class organized and under way at the beginning of the term becomes increasingly involved.

11. It is difficult to maintain high standards of craftsmanship with the general shop program predicated on breadth rather than depth.³

In order to determine the local opinions of the general shop, school personnel in the survey questionnaire were asked to answer some questions relative to the acceptance and knowledge of the use of the general shop in the industrial arts programs in the state of Kansas and these responses

³Ibid., pp. 27-28.

were tabulated in a set of tables, each replying to the question on the survey.

The first question regarding acceptability asked was, "How was this type of organization accepted in the beginning?" Replies received from one hundred and sixty-four districts indicated the following in Table VII.

TABLE VII

HOW ORGANIZATION OF THE GENERAL SHOP WAS ACCEPTED

Responses	Number of Districts Responding
Accepted Without Question	118
Accepted with Reservations	30
Accepted by Some, Not by Others	14
Not Accepted	0
Uncertain	2

The second question asked in regard to the acceptance of the general shop type of organization in the industrial arts programs of the state was, "What seems to be the general opinion of this type of organization throughout the school system and district where you teach?" Table VIII shows the responses to this question from personnel representing one hundred and seventy-five school districts.

TABLE VIII

GENERAL OPINIONS OF GENERAL SHOP ORGANIZATION

Opinions	Number of Districts Responding
Excellent	57
Good	102
Fair	14
Poor	0
Undesirable	0
Shop Lacks Equipment	2

The third question asked in relation to the acceptance of the general shop in the school districts of the state was, "Were individuals concerned with the organization of the general shop in the industrial arts curriculum in your school informed that the general shop was to be included as part of the industrial arts program?" Table IX shows the responses from one hundred and seventy officials to this question.

Reasons for not informing the public of this type of organization being instituted were reported by school personnel from twenty-four districts; some of which appeared in the questionnaire used and others which were written in by persons completing the desired information. Ten responses stated that it was not considered necessary to inform patrons, eight

TABLE IX

WERE CONCERNED INDIVIDUALS INFORMED
OF GENERAL SHOP ORGANIZATION?

Responses	Number of Secondary School Districts Responding to Each Answer
Yes	94
No	21
Possibly	20
Not Known	35

stated that individuals who should have been concerned with this matter expressed little or no interest concerning developments in changes of school curriculum. Four school personnel stated that the district had poor circulation of educational materials and bulletins concerning educational developments, one individual implied that it was not advertised because educational developments were left entirely to the superintendent and board of education, and one individual stated that the general shop was simply started for boys not in vocational agriculture.

Table X shows tabulations of opinions of the value of the general shop to which most secondary school personnel responded: that it was most important, or important, while very few thought it to have little merit, or that it should be discarded.

TABLE X

VALUE OF GENERAL SHOP

Opinions	Number of Districts Responding
Is the Most Important	33
Is Important	100
Has Little Merit	5
Should be Discarded	8

Some additional comments regarding the importance of general shop or reasons for it in secondary school industrial arts programs are as follows:

1. Served the purpose of getting town boys out of vocational agriculture.
2. Is all right if no other means are available.
3. Good thing in a small school.
4. Has merit only if equipment and space are limited.
5. Most important for junior high schools.

Comparison of General Shop Organization
with Other Types of Organization

Secondary school personnel were asked to compare the general shop with other types of industrial arts shops in regard to value derived by the students. Responses were

received from one hundred and sixty-nine personnel, and their replies are shown in Table XI. The majority of school personnel thought that the general shop was on an equal basis with other types of shops in this respect.

In observing Table XI, it can be concluded that in most cases, the general shop is thought to compare equally with other types of industrial arts shop organization in the state. However, a small minority answering the questionnaire stated that they thought the general shop was inferior to other types of shops.

TABLE XI

COMPARISON OF GENERAL SHOP WITH OTHER TYPES
OF INDUSTRIAL ARTS ORGANIZATION

Responses Indicating Whether or Not General Shop is on Equal Basis With Other Types of Shops	Number of Districts Responding to Each Comparison
Superior to Other Types	3
Yes	131
No	19
Indifferent	4
Do Not Know	12

Major Problems in Maintaining
General Shop Programs

Secondary school personnel were asked to state briefly the major problems that each had in setting up and maintaining a general shop program. A few of the more outstanding comments are listed from responses on the questionnaire:

1. Getting necessary equipment and space.
2. Too much time may be spent in one area.
3. Hard to judge what community wants.
4. Organization as a whole and rotation of students from area to area.
5. Only in group rotations.
6. Not enough time for and control of students.
7. Facilities too small.
8. Too many students want to do only one thing.
9. Difficulty of supervising a simultaneous rotating program.
10. One class one day, another the next.
11. Extra time it takes to maintain a great variety of projects.
12. Value is lost if not followed by unit shops.
13. Individual instruction is limited.
14. It is difficult to find a qualified general shop instructor.
15. Have trouble arousing students to desire training other than woodworking.
16. Organizing a sufficient program for a small school and staying within the budget.

17. Storage space for the various tools.
18. Too much equipment needed, athletics more important.
19. Proper text, length of time in classroom, and shop.
20. Deciding what areas are to be included in planning.

In the foregoing comments, the most prevailing problems in providing this type of organization were money, time, and qualified instructors. Numerous officials stated that their respective districts had difficulty financing such a program adequately.

Evaluation of Instructional Areas

An evaluation of the instructional areas with regard to value or importance to the student is shown on the following pages in Table XII. The ratings in this table do not reflect the opinions of students but those of the individuals who completed the blanks in the questionnaire used in the survey. Secondary school personnel rated the areas by using a numerical rating of one, for the most important; to two for the second most important, and so on. In determining the most outstanding area, from the standpoint of all returns, the area with the largest number in the number one column under "Numerical Rating" is the one selected by the largest number of school personnel as the most beneficial to students. In this case, the area happens to be hand woodwork. Woodwork apparently holds a position with the majority of districts because it is also rated in the number two column under

TABLE XII

EVALUATION OF INSTRUCTIONAL AREAS

Instructional Areas	Numerical Rating										
	1	2	3	4	5	6	7	8	9	10	11
<u>Areas Appearing in</u> <u>Questionnaire</u>											
Art Metal	4	1	3	2	4	2	4	1	0	0	1
Auto Mechanics	13	11	6	1	1	1	1	2	0	0	0
Bench Metal	4	8	5	6	4	4	2	4	1	1	0
Book Binding	0	0	2	0	0	0	0	0	0	1	1
Driver's Education	5	7	2	2	2	1	2	0	0	1	0
Electricity	7	4	6	3	4	5	3	0	1	1	0
Finishing	8	7	9	12	12	5	3	2	2	1	0
Free-Hand Drawing	5	3	2	7	2	5	2	2	3	1	0
Hand Woodworking	39	25	11	5	3	3	1	1	1	1	0
Leather Craft	3	3	8	5	5	1	11	4	1	1	0
Machine Metalwork	6	7	6	8	3	2	2	2	1	0	0
Machine Woodwork	25	18	13	6	4	2	0	0	1	1	0
Masonry	2	1	2	2	1	1	2	1	0	0	0
Mechanical Drawing	33	24	14	12	4	3	0	0	1	0	0
Photography	1	3	2	1	0	1	2	0	0	0	0
Plastics	1	2	8	5	4	2	0	1	4	1	0
Printing	1	3	1	0	0	1	0	0	1	0	0
Sheetmetal	4	5	10	5	5	6	5	2	1	1	0
Small Gasoline Engines	3	5	3	2	3	0	1	3	0	0	0
Welding	28	16	13	9	6	5	0	0	1	0	0

"Numerical Rating" by the largest number of school personnel. Mechanical drawing is rated in the number two position in both the number one and two columns under "Numerical Rating."

Summary

The general shop has been a controversial issue since its beginning. Some educators maintain that it is not probable that an instructor can do an efficient job of teaching a number of instructional areas organized as one course. Other educators, in justifying such an organization, expressed their beliefs that it is not the purpose of the general shop to develop skilled tradesmen but rather to acquaint individuals with a variety of tools, materials, and equipment familiar to several instructional areas.

The areas which are regarded as most valuable to the students by personnel are hand woodwork, mechanical drawing, and welding in that order.

Returns from one hundred and seventy-five personnel indicated that the majority of officials regarded the general shop as a good or excellent procedure for implementing the objectives of industrial arts programs.

CHAPTER V

TRENDS OF THE GENERAL SHOP

Determining Current Trends

In order to determine the current trends of the general shop, school personnel were asked in the questionnaire what future needs merited consideration for addition to the general shop. A large number of officials indicated the general shop teacher and/or the administration should first find out what the community specifically wanted in the way of course content insofar as instructional areas and projects were concerned. The most common remark was, "Find out what the community wants." On the other hand, two school personnel stated that general shops in the state should have a standard course of study for all schools which makes the issue controversial. Opinions of patrons were not available and are not reflected in this study.

Silvius and Curry in their book, Teaching Multiple Activities in Industrial Education, state:

Even though Americans are a highly mobile group, a high percentage of the people live and work in the community in which they were born and educated. It is therefore essential that industrial education teachers have a good knowledge of local occupations. Some communities have gathered this information through an occupational survey. If there has not been a recent survey, it would be well for the shop teacher to try to ignite the spark that would set the machinery in motion to make one possible. Once the needs of the community are known, the shop teacher can bring to the attention

of his students the places in the community where acquired skills could be used.¹

The following paragraph also indicates that there is considerable value in knowing the thoughts of the community concerning what the youngster brings home from the shop representing the knowledge he was to have gained and the experiences he was to have had. Paralleling this point, another idea from Silvius and Curry, expresses this thought:

Parents and other teachers are rightly critical of many of the so-called standard projects that have been continuously built in school shops since handwork was first introduced. Persons in a school community think of bread boards, tie racks, funnels, ball trees, shoe shine stands, coal chisels, foot stools, pedestals, towel racks, and hammer heads as typical of the projects that have come down through the years. It has been said, "There are three certainties in life: First is birth, second is death, and third is that a boy will make a tie rack while he is in the seventh grade."²

The preceding statement casts a dim glow to the premise that general shops should have a course of study.

Suggested Methods of Organization

A number of personnel answering the questionnaire expressed their desire to have more time to present instruction and for the students to have more time to work with materials. Recommendations to remedy this situation were to have a maximum of four areas covered during the school year, to have longer class periods, limit classes to a certain size,

¹Silvius and Curry, op. cit., p. 386.

²Ibid., p. 117.

arrange better organization, and the use of instruction and information sheets.

One method suggested for covering the instructional areas included in a general shop program in a shorter length of time has been used by L. B. Carlyon. This method employs the work station procedure where the students make a "cross-project" of several types of materials using tools and machines familiar to several areas.³

To support this, another paragraph from Silvius and Curry states:

In many of today's general industrial arts programs, which are carried on in a general shop, one would not always find students in designated areas for specific kinds of work such as woodworking, electrical work, and metalworking. Instead, each student is assigned a work station where he remains while he develops and builds a project. When examining what is done at these work stations, it is found that the projects cut across several conventional shop activities. For example, a boy may be building a small electric motor which has wood, metal, and plastic parts, and provides experiences in wood, metal, and applications in electricity. The only time that it is necessary for him to leave the work station after the project has been planned is when he uses some of the service equipment, such as a jig saw or buffer.⁴

Mankato, Kansas, a small town which had a vocational shop program primarily, now maintains a general shop for the "city boys." Their procedure might be recommended for districts that have a small number of students in school or in this case, more of them interested in another program.

³L. B. Carlyon, personal interview with the writer, Pittsburg, Kansas, December 30, 1960.

⁴Silvius and Curry, op. cit., p. 31.

The officials at Mankato open the general shop there every other year it was revealed on the questionnaire.

New Areas of Instruction

One of the new areas suggested on the questionnaire to be included in a general shop program was the maintenance and repair of small gasoline engines. This suggestion ranked the highest of all proposed areas which should be included in the program and was the only relatively new area to be recommended as a valuable addition. Some personnel felt that it was important to include a unit in auto mechanics if possible, and if not, small gasoline engines should be substituted. Other more familiar areas, such as crafts, plastic, and welding were suggested as being valuable.

There was a tendency for officials who were becoming aware of the outstanding areas which could be applied to everyday living in their respective communities to recommend instructional areas which are more dominant in every day living. An example of this trend was demonstrated by the rural or small town school districts where the officials recommended the inclusion of welding in general shop programs. This trend was probably influenced by the fact that individuals in small communities, farmers in particular, own a large percentage of the limited input, alternating current, electric welding machines. These machines can be used by the average individual easily after a certain amount of instruction such as could be obtained in the general shop.

It was difficult to determine if the personnel recommending these major areas were already using them in their programs or were simultaneously making recommendations for other school districts and their own at the same time.

School officials have expressed the desire to build skills in the general shop as in the unit shop, by offering such areas as advanced drafting and electronics, which indicated the use of a second year or advanced program in the general shop. Sixty-seven personnel from school districts indicated this on the questionnaires to provide more industrial arts for students who were interested, as shown previously in Table V, page 29.

Coeducational General Shops

Some school personnel stated on the questionnaire that girls should be permitted and encouraged to enroll in general shop classes. One individual approved of this but suggested that boys and girls not be enrolled in the same class for the reason that some of the work or activities to be carried on in class would be natural for boys and if the class was made up of boys and girls and was graded together, the achievement of the boys would tend to be better.

School personnel were asked if girls were permitted to enroll in the general shop. The results to this questioning are shown in Table XIII, illustrating the responses from school personnel representing one hundred and fifty secondary school districts.

TABLE XIII

NUMBER OF SCHOOL DISTRICTS PERMITTING GIRLS TO
ENROLL IN GENERAL SHOP CLASSES

Responses	Number of Districts Responding
Yes	30
No	95
Girls Not Interested	25

Summary

School personnel expressed the desire for the use of a statewide course of study. The advisability of a statewide course of study in all general shops becomes questionable after a review of literature which indicates that a statewide course of study may become "too well used."

Communities are being benefited by the institution of instructional areas that are synonymous to their everyday living.

A small number of general shop programs in the state are coeducational. Secondary school personnel approve of this generally but it has been pointed out that classes should not be mixed.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary

It is difficult to determine how the term "General Shop," used for designating a multiple activity area came about, but it is the most used term.

The general shop had its origin about 1910, with many individuals over the nation teaching more than one area in a single classroom during a single class period.

Although sources of information have been somewhat indefinite, indications are that L. B. Carlyon, Plant Superintendent at Kansas State College of Pittsburg, is responsible for the organization of one of the earliest if not the earliest of the general shop programs in the state of Kansas, at Neodesha in 1933.

General shops in the state of Kansas are recognized by various terms. The term "General Shop" is the most prevailing one. Other such terms as "General Industrial Arts, Comprehensive General Shop, and Composite General Shop," which are terms recognized by authorities, are used by other officials. Some officials or school personnel indicated that they had selected terms of their own origin to name this multiple activity organization. Such terms as, "Elementary Shop, Shop, Shop I, Industrial Arts Shop, and Unit

General Shop," have been selected by officials not using the terms recognized by authorities.

From one hundred and seventy-nine returns, sixty-five secondary school personnel indicated that the general shop was used as one hundred per cent of the district's industrial arts program. While the remaining one hundred and fourteen personnel listed the general shop as various percentages of the total industrial arts program.

Larger school districts were inclined to use the "Limited General or Unit Shops" in high schools altogether with no general shop organization at any level. However, some of the larger districts have a general shop in their junior high schools. The general shop prevailed in the small community school districts.

Sixty-one per cent of the total returns from school personnel indicated the use of a general shop in the industrial arts programs of that many school districts.

College and secondary school officials indicated that instructional areas have been changed. Instructional areas used in the initial general shop offerings differ in some cases from those used currently. Secondary school personnel also indicated that classroom procedures in regard to changing from area to area during the school term vary considerably.

Sixty-seven secondary school personnel indicated the use of a second year or advanced program and designated the instructional areas that were used in the programs.

Returns indicated that as a whole, the secondary school general shop programs have been organized for a longer period of time than the college general shop programs.

The general shop has been a controversial issue since its beginning. Some educators maintain that it is not probable that an instructor can do an efficient job of teaching a number of instructional areas organized as one course. While others, in justifying such organization, expressed themselves that it was not the purpose of the general shop to develop skilled tradesmen but rather to acquaint individuals with a variety of tools, materials, and equipment familiar to several instructional areas.

The areas which are regarded as most valuable to the students by personnel were hand woodwork, mechanical drawing, and welding, in that order.

Returns from one hundred and seventy-five personnel indicated that the majority of officials regarded the general shop as a good or excellent procedure for implementing the objectives of industrial arts programs.

School personnel expressed the desire for the use of a statewide course of study. The use of a course of study to be used over the state in all general shop courses becomes questionable after a review of literature which indicated that a statewide course of study may become "too well used."

Communities are being benefited by the institution of instructional areas that are synonymous to their everyday living.

A small number of general shop programs in the state are coeducational. Secondary school personnel approved of this generally but it was pointed out that classes should not be mixed.

Conclusions

The general shop as a method of organization had to overcome many obstacles. Some obstacles were justifiable problems which arose in the face of controversy over instructional areas included in general shop programs, teacher competency, cost of materials and equipment, and amount of time spent in particular areas.

Some controversy appeared in regard to the value of the general shop and in particular, controversy arose over the initial purpose of the general shop. General shop was defined as an exploratory type of "organization" and not a "course of study."

Districts using the general shop in advanced or second year programs may be questioned of its value at this point.

The general shop was recognized as a valuable means to implement beginning industrial arts programs in colleges as well as in high schools. The general shop prevailed in small communities and was, on the average, about fifteen years of age over the state of Kansas.

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APPENDIX A

LETTER TO HIGH SCHOOL DISTRICTS

December 3, 1960

Dear Sir,

Attached is a questionnaire which will be used in connection with a study to be done at Kansas State College of Pittsburg, Pittsburg, Kansas. The information obtained herein will be used for the purpose of determining, as nearly as possible, the historical background for the "General Shop Program" as part of the industrial art curriculum for high schools in the state of Kansas.

Since it is imperative when doing a study of an historical nature, to have complete returns as nearly as possible and since there are some 695 high schools and junior high schools in the state of Kansas, you are encouraged to return the questionnaire so that a valid study can be written. Enclosed you will find a stamped, self-addressed envelope for your convenience in returning the needed information by December 17, 1960.

Your time and indulgence required to fill out this necessarily long questionnaire are deeply appreciated. The information being sought pertains strictly to the general shop program. If your school system does not have it in the industrial arts curriculum, please indicate by stating so on the third page at the position provided for individual comments.

Sincerely yours,

Noel F. Long
216 East 6th
Chanute, Kansas

QUESTIONNAIRE TO HIGH SCHOOL DISTRICTS

The Development and Trends of the General Shop in the State of Kansas

Name _____ Position _____

Name of School _____ Address _____

This questionnaire will be used in a study to be done at Kansas State College of Pittsburg by Noel Farris Long, 216 East 6th, Chanute, Kansas.

Definition of general shop: A one-room, one teacher course in which work is carried on in two or more areas.

Directions: Please indicate your practice or viewpoint in industrial arts concerning the following statements by using a check () in the appropriate space.

1. By what name is your general shop program technically recognized?

() General Shop	() Composite General Shop
() General Industrial Arts	() Laboratory of Industries
() Comprehensive General Shop	() Other _____
2. How many years has this program been in operation in your school system.
a. Exactly _____ years b. About _____ years
3. What percentage of your total industrial arts program is carried on in the general shop program?
() 25% () 33% () 50% () 66% () 75% () 100% () Other
4. Who is responsible for recommending the above type of program for the industrial arts curriculum in your school system?

() Guidance Counselor	() Patron
() Administrator	() Student
() Local Official	() Do Not Know
() State Official	() Other _____
5. By whom was the general shop which you have in your industrial program organized?

() Guidance Counselor	() Member of/or Board of Educ.
() Administrator	() Do Not Know
() Teacher	() Other _____
6. Was the individual (s) responsible for organizing this program formally education on the principles and factors upon which a general shop is based?
() Yes () No () Possibly

13. What do you think is the trend of the general shop in our industrial arts program?
☐ Expanding ☐ Declining ☐ No apparent change
☐ Do not know

Directions: Please comment on the following statements.

14. Do you think that the general shop is on a comparatively equal basis to other types of industrial arts shops with regard to values derived by the students?

☐ Yes ☐ No ☐ Indifferent ☐ Do not know

Comment:

15. Do you know of any school system which is contemplating but is hesitating about the setting up of a general shop? ☐ Yes ☐ No

If you know of such a school, what seems to be the major problem?

Comment:

16. Do you know of any school system which is contemplating or actually is changing from a general shop program to some other type of industrial arts organization? ☐ Yes

Comment: ☐ No

17. What significant problems have you, previous teachers, or the administration come into contact with in setting up and maintaining a general shop problem?

Comment:

18. What future needs do you feel merits consideration for addition to general shop programs in the way of course content?

Comment:

19. Is the general shop program open to girls?
() Yes () No () Girls not interested

If the general shop program is open to girls, please list in the spaces provided below, the areas of instruction which they receive.

- | | |
|----------|----------|
| a. _____ | e. _____ |
| b. _____ | f. _____ |
| c. _____ | g. _____ |
| d. _____ | h. _____ |

Additional space is provided below for individual comments if desired.

Directions: Indicate your practice or viewpoint on the following statements by referring to the columns listed on the lower portion of this page which corresponds with each question.

20. If information is available, what areas of instruction were taught the first year this program was put into action?
21. What areas of instruction do you currently include in your general shop program?
22. Indicate which areas of instruction you think have been significant additions to the original program?
23. If you offer advanced courses in the general shop program indicate the areas of instruction which are included.
24. Evaluate in your opinion, the order of importance to the majority of students, the areas you have in your general shop by placing a number by it, from one (1) for the most significant to two (2) for the next, etc.

<u>Columns</u>					
20	21	22	23	24	
( )	( )	( )	( )	( )	....Art Metal
( )	( )	( )	( )	( )	....Auto Mechanics
( )	( )	( )	( )	( )	....Bench Metal
( )	( )	( )	( )	( )	....Book Binding
( )	( )	( )	( )	( )	....Driver's Education
( )	( )	( )	( )	( )	....Electricity
( )	( )	( )	( )	( )	....Finishing
( )	( )	( )	( )	( )	....Free-Hand Drawing
( )	( )	( )	( )	( )	....Hand Woodworking
( )	( )	( )	( )	( )	....Leathercraft
( )	( )	( )	( )	( )	....Machine Metalwork
( )	( )	( )	( )	( )	....Machine Woodwork
( )	( )	( )	( )	( )	....Masonry
( )	( )	( )	( )	( )	....Mechanical Drawing
( )	( )	( )	( )	( )	....Photography
( )	( )	( )	( )	( )	....Plastics
( )	( )	( )	( )	( )	....Printing
( )	( )	( )	( )	( )	....Sheetmetal
( )	( )	( )	( )	( )	....Small Gasoline Engines
( )	( )	( )	( )	( )	....Welding
( )	( )	( )	( )	( )	....Other _____
( )	( )	( )	( )	( )	....Other _____
( )	( )	( )	( )	( )	....Do not know

APPENDIX B

LETTER TO COLLEGES

January 26, 1961

Dear Sir:

I am a graduate student at Kansas State College of Pittsburg, Pittsburg, Kansas. I am presently involved in doing a study for the purpose of determining the historical background and modern trends of the "Comprehensive (composite) General Shop" in the state of Kansas.

It has been decided that in order to do a complete study it will be necessary to solicit colleges for some information. I would appreciate hearing from you regarding when the general shop was first introduced into your industrial arts program, what areas were initially included and what areas are currently included so that significant changes can be determined.

Any other information which you feel is important will be appreciated.

Your time and indulgence required to furnish this information are deeply appreciated.

Respectfully yours,

Noel F. Long
216 East 6th
Chanute, Kansas

QUESTIONNAIRE TO COLLEGES

Development and Trends of the General Shop in the State of Kansas

Please supply the information in the following questions if possible.

1. What year was the general shop first introduced into your industrial arts program? _____
2. What areas were initially included and what areas are currently included?
(Please check and indicate what year).

Initially	<u>Areas of Instruction</u>	Currently
_____	Art Metal	_____
_____	Auto Mechanics	_____
_____	Bench Metal	_____
_____	Bookbinding	_____
_____	Driver's Education	_____
_____	Electricity	_____
_____	Finishing	_____
_____	Free-Hand Drawing	_____
_____	Hand Woodworking	_____
_____	Leathercraft	_____
_____	Machine Metalwork	_____
_____	Machine Woodwork	_____
_____	Masonry	_____
_____	Mechanical Drawing	_____
_____	Photography	_____
_____	Plastics	_____
_____	Printing	_____
_____	Sheetmetal	_____
_____	Small Gasoline	_____
_____	Engines	_____
_____	Welding	_____
_____	Other	_____
_____	Other	_____
_____	Other	_____

APPENDIX C

PERSONAL LETTER

January 21, 1961

Raymond J. Coltharp, Chairman
Industrial Arts Department
Memphis State College
Memphis, Tennessee

Dear Mr. Coltharp,

I am a graduate student at Kansas State College of Pittsburg, Pittsburg, Kansas. I am presently involved in doing some research for the purpose of determining the background of and some of the modern trends of the "General Shop" in the state of Kansas.

I have had some interviews with individuals and you have been suggested as having started one of the first general shops in Kansas. I would appreciate hearing from you at your convenience regarding the following facts:

1. When and where your general shop was started?
2. What areas of instruction were included?
3. Do you happen to know when and where the first general shop in Kansas was started?
4. Do you know of any general shops started about the same time which would be significant?

Any other information which you may think is important will be appreciated.

Thank you very much for your time and indulgence required to carry out this task.

Respectfully yours,

Noel F. Long,
216 East 6th
Chanute, Kansas

PERSONAL LETTER

February 22, 1961

Mr. Noel F. Long,
216 East Sixth Street
Chanute, Kansas

Dear Mr. Long:

In reply to your letter of January 21, 1961, I am pleased to give you this information concerning my part in the development of a General Shop.

I was teaching Industrial Arts (Woodwork and Drafting), and coaching at Burns, Kansas. Due to Doctor O. A. Hankammer's inspirational leadership, I became interested in the General Shop, and re-organized the offerings. This was done during 1937 and 1938. Areas included were: Planing, Woods, Metals, Concrete, and Electricity. I'm sorry that I can't answer your other questions concerning other programs; I believe Schuyler Burris developed a program at about this time, but am not certain where he worked.

I hope this information will be of assistance to you.

Sincerely,

R. J. Coltharp, Chairman
Industrial Arts Department
Memphis State University
Memphis 11, Tennessee

RJC:bab

P. S. I still believe in the General Shop.