

Date: July 15, 1955

Name: Fields, Norval Dee

Position: Student

Institution: Oklahoma A. and M. College Location: Stillwater, Okla.

Title of Study: EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS

Number of Pages in Study: 44

Degree Granted: Master of Science

Under Direction of What Department: School of Industrial Arts Education
and Engineering Shopwork

Scope of Study: The first part of this report is devoted to history and philosophy of industrial arts. The report starts with early philosophies and history. It tells of the movements which developed into the present industrial arts program. Objectives and current philosophies are quoted and developed by the writer.

The second part of this report is devoted to a study of effective discipline in industrial arts. An attempt has been made to determine the underlying causes of poor classroom control, make recommendations to improve causative factors, and to give authoritative comments on disciplinary measures with elaboration by the author based on general findings of his study. It is believed that this information will be of value to industrial arts teachers and students who are preparing to enter the field.

The material for this report was taken from current books and periodicals in the Oklahoma A. and M. College library.

Conclusions and Summary: Effective classroom control has its foundations in good teacher planning, preparation, and delivery. Other contributing factors are a neat, clean, attractive shoproom, and student participation in the management and operation of class activities.

Whenever possible factors should be removed which later may make disciplinary action necessary. When control problems arise, disciplinary action should be suited to each individual personality. All disciplinary actions should be based on the democratic principles upon which this country is founded.

ADVISER'S APPROVAL

C. R. Ikel

EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS

EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS

By

NORVAL DEE FIELDS

Bachelor of Science

Panhandle Agricultural and Mechanical College

Goodwell, Oklahoma

1950

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

1955

SEP 7 1955

EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS

NORVAL DEE FIELDS

MASTER OF SCIENCE

1955

REPORT APPROVED:

C. L. Hill

Associate Professor 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 R. Stapley

Dean, Oklahoma Institute of Technology

Robert Mardian

Dean of the Graduate School

ACKNOWLEDGMENT

I wish to express sincere appreciation to Mr. Cary L. Hill, Associate Professor and Acting Head, School of Industrial Arts Education and Engineering Shopwork of Oklahoma Agricultural and Mechanical College, for his generous cooperation and advice as my advisor and for his assistance in my graduate work.

N.D.F.

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
I. INTRODUCTORY STATEMENT	1
The Need for Study.	1
Methods of Study.	1
Proposed Definitions of Significant Terms	1
Available Literature on This Subject.	2
Predicted Views of the Results of This Study.	2
Plan for Presenting the Material.	2
II. HISTORY AND PHILOSOPHY OF INDUSTRIAL ARTS EDUCATION.	4
Part A. Beginnings of Industrial Education.	4
Comenius.	5
Rousseau.	5
Pestalozzi.	5
Fellenberg.	6
Maclure	6
Froebel	7
Cygnaeus.	8
Salomon	8
Della Vos	9
Woodward.	10
Runkle.	11
Butler.	11
Larrison	12
Leavitt	12
Richards.	12
Bonser.	13
Frosser	13
Part B. Current Beliefs	14
General Education	15
Industrial Education.	15
Manual Training	16
Manual Arts	16
Industrial Arts	17
Objectives.	18

<u>Chapter</u>	<u>Page</u>
III. EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS.	21
Part A. Discipline.	21
Definitions	21
Objectives.	23
Part B. Contributing Factors of Good Discipline	25
Teacher Factors in Discipline	25
Democratic Practices.	27
Physical Factors in Discipline.	30
Approaches to Discipline.	31
IV. CONCLUSIONS AND RECOMMENDATIONS.	35
Summary	35
Recommendations	36
A SELECTED BIBLIOGRAPHY.	37
APPENDIX	40

CHAPTER I

INTRODUCTORY STATEMENT

Talking with many industrial arts teachers and reading many current articles concerning discipline in the classroom prompted the writer to make this survey to see what the best current thinking is concerning disciplinary problems and effective means to deal with them. The author thought current philosophies of discipline and disciplinary practices are not in accord.

The Need for Study. The need for the study was based on the author's knowledge that many otherwise effective industrial arts teachers are losing the effectiveness of their teaching through poor classroom control. Though much writing has been done concerning discipline, counseling, and guidance of high school students, discipline is one of the most common causes of failure of teachers.

Methods of Study. The preparation of this report involved several years study in the field of education and observation and teaching in secondary schools. Extensive research was made in the Oklahoma Agricultural and Mechanical College library reading and studying industrial arts and education books and periodicals.

Proposed Definitions of Significant Terms. The following are a list of selected definitions of terms used in this report.

Industrial Education is a generic term including all

educational activities concerned with modern industry, its raw materials, products, machines, personnel, and problems. It therefore includes both industrial arts and vocational industrial education. (6, page 7)

Manual Training. This term, according to the best usage, signifies the systematic study of the theory and use of common tools, and the nature of common materials, elementary and typical processes of construction, and the execution and reading of working drawings. (13, page 8)

Industrial Arts. . . . those phases of general education which deal with industry--its organization, materials, occupations, processes, and products--and with the problems resulting from the industrial and technological nature of society. (17, page 2)

Discipline. . . . is a means of bringing about a better social order through developing, in each individual, right habits of conduct, appropriate patterns of thought, and worthy ideals that shall serve as goals and standards of achievement. (14, page 71)

Available Literature on This Subject. There is a rather extensive amount of literature on the subject of discipline. Almost ever since writing was first done on the subject of education there was extensive comment of discipline. Many current writers are writing in industrial arts and educational books and periodicals about the subject.

Predicted Views of the Results of This Study. It is believed by the author that the study of discipline will lead to a list of positive measures of discipline. It is expected that many of the current disciplinary practices are not in accord with the best philosophies of discipline in the democratic classroom.

Plan for Presenting the Material. This report will contain three other chapters. Chapter II, Part A, will contain a list of the leaders in movements which culminated in industrial arts--their contributions, and their philosophies of industrial education. Chapter II, Part B, will

contain a list of definitions commonly used in industrial education and objectives of industrial arts in general education. Chapter III, Part A, will contain definitions of discipline as used in democratic classrooms and a list of objectives of discipline. Chapter III, Part B, will give contributing factors toward good discipline as accepted by the author. Chapter IV will be the concluding chapter; it will summarize the findings of the study of discipline in the classroom.

This chapter states the need for the study, methods of study, proposed definitions of significant terms used in the report, available literature on the subject, predicted results, and a plan for presenting the material. To better understand the present factors of discipline in the industrial arts laboratory or classroom it is necessary to understand the historical background of industrial arts.

CHAPTER II

HISTORY AND PHILOSOPHY OF INDUSTRIAL ARTS EDUCATION

Many different philosophies have been advanced regarding industrial arts education and its place in the education program. Much thinking about the most effective manner of presenting industrial information was done before the modern industrial arts program was established.

Part A

Beginnings of Industrial Education

From Greek and Roman antiquity through the middle ages there are isolated instances in theory and practice of educating persons for industry. However, the first plans for making industrial education a part of the general school education of young people were made during the renaissance. (1, page 1)

In More's Utopia every citizen is trained in agriculture and some other type of skilled labor. In Rabelais' Utopia study is made of industry and manufacturing processes. And in Campanella's City of the Sun instruction is given in arts and industries with the ablest craftsmen instructing citizens in the crafts.

Although some thinkers in every age sensed the need for coupling learning with life, it remained for the thinkers of the last three centuries to do something specific to incorporate industrial training into the school curriculum. Some of the most influential men in starting the movements in education which culminated in our industrial arts program

were Comenius, Rousseau, Pestalozzi, Fellenberg, and Froebel.

Comenius. In the early part of the seventeenth century Amos Comenius took issue with the methods and texts of education of the time. He says, ". . . words should convey meaning to the pupils and that the accumulation of knowledge should be by the 'natural order', that is, that it should be significant and logical." (15, page 21)

Rousseau. Rousseau, a French philosopher of the eighteenth century, recognized that skill of hand is necessary for young men. He believed that a trade involving hand skills was a safeguard against personal want and poverty. Rousseau felt that a young man who has lost his station in society has little to turn to except a well developed skill. He urged systematic instruction and training in some form of manual industry. He believed in adjusting education to the natural impulses of the child.

Pestalozzi. Pestalozzi, a Swiss educator in the last part of the eighteenth and the first part of the nineteenth century, advanced farther than Comenius of the century before. He advocated the use of the object method of education by supplying the mind through sense perception, by the observing and the handling of objects. Pestalozzi tried to connect school, workshop, and labor. He said, "To cultivate knowledge and neglect skill is to give a warped and one sided education and to put the individual out of harmony with himself and the world about him." (1, page 86) Pestalozzi stated, "There are two ways of instructing, '. . . either go from words to things or from things to words. Mine is the second method." (2, page 119) He believed that learning comes best from actual physical experience.

Pestalozzi's first plan was to fit poor pupils to make a living by training in mechanic arts. Later he placed more emphasis on training for general education.

From the standpoint of either general education or vocational education, an important turning point in the history of industrial education was reached when an analysis was made of the tool and construction methods employed in mechanic arts. When this analysis was made of mechanic arts, it was realized that these arts could be successfully taught in schools like other subjects. Pestalozzi made a thorough analysis of geometric drawing and there is evidence that he made a similar analysis of other subjects.

Fellenberg. Philip Emanuel Von Fellenberg, a co-worker of Pestalozzi, elaborated Pestalozzi's ideas and put them into extensive use. He said, "Education must be reformed as well as extended. It must prepare each individual to live a useful, happy, and moral life." (2, page 129) Fellenberg believed in the closest possible connection between theory and practice, and that action should closely follow instruction.

In a school experiment Fellenberg employed mechanics from several trades and gave each a shop. The trades represented were for blacksmith, wheelwright, cabinetmaker, carpenter, turner, brass worker shoemaker, harness maker, tailor, lithographer, and bookbinder. Students left Fellenberg's school with high morals, a general education, a trade, and a practical knowledge of farming.

Maclure. At New Harmony, Indiana, William Maclure, philanthropist and social reformer, started an industrial school. Maclure planned to

make New Harmony the education center of America by using Pestalozzi's methods of instruction. Each pupil in the higher school was required to learn at least one trade in the shops or on the farm attached to the school. (1, page 142) Some of the industrial courses which were offered at New Harmony were printing, drawing, carpentry, wood turning, blacksmithing, cabinetmaking, shoemaking, and agriculture. Maclure believed that every child should be taught a trade in order to be self-supporting and independent of others.

Strong difference of opinion developed at New Harmony and the school collapsed after two years. Though this experiment was discontinued, it could hardly be called a failure for it started much new thinking about the place of industrial training in the curriculum of American schools.

Froebel. Froebel, a pupil of Pestalozzi, took another step in the direction of eliminating meaningless study and establishing the modern idea of self-activity. Froebel felt that children are creative and receptive and express themselves in action. He thought that education should come from things which the child knows, things which are a real part of his life.

In 1829, Froebel made the following statement regarding a proposed school:

The institution will be fundamental, inasmuch as in training and instruction it will rest on the foundation from which proceed all genuine knowledge and all genuine practical attainments; it will rest on life itself and on creative effort, on the union and interdependence of doing and thinking, representation and knowledge, art and science. The institution will base its work on the pupil's personal efforts in work and expression, making these, again, the foundation of all genuine knowledge and culture. Joined with thoughtfulness, these efforts become a direct means of instruction, and thus make of work a true subject of instruction. (2, page 164)

Cygnaeus. The Finnish senate appointed Uno Cygnaeus to investigate the schools of France, Germany, and Switzerland. During his travels, Cygnaeus became acquainted with the writings of Pestalozzi and Froebel. He got from them the idea of handwork. Cygnaeus says after his study:

. . . I was led to the thought that we must introduce into the school not only Froebel's gifts and the rest of the exercises in work recommended by him, but also establish for older children such kinds of work as have for their aim the training of the hand, the development of the sense of form, and of the esthetic feeling, and which help young men to a general practical dexterity, which shall be useful in every walk of life. . . . but all these kinds of work must not be conducted as trades, but always with reference to the aim of general education and as a means of culture. (1, page 107)

In 1866, under the leadership of Cygnaeus, manual training was introduced into the schools of Finland. Manual training in these schools was based on the theories of Froebel.

Salomon. Otto Salomon of Sweden met Cygnaeus, founder of the Finnish school system, in 1877. Salomon was impressed with the Froebelian views of the educational influence of handwork. After his visit with Cygnaeus, Salomon began to plan the sloyd system to accomplish purely educational rather than economic ends.

Some of the characteristics of sloyd were making useful projects, analysis of processes, and the use of educational method. Drawing was believed necessary to precede or accompany sloyd. Emphasis in the sloyd movement was placed on the fact that if an artisan was to give instruction he must first become an educated teacher. If a teacher were to give the instruction he must first become skillful in the use of tools. (3, page 66)

Some of the objectives of educational sloyd were to develop an

appreciation for labor in general, to develop independence and self-reliance, to develop habits of order, exactness, cleanliness, to develop a sense of form, to develop habits of attention, industry, perseverance, and patience, and to develop physical powers. (3, page 68)

Educational sloyd exerted a strong influence in many other countries through the Seminarium, a teacher training institution under the direction of Otto Salomon. Progressive teachers from all countries, who wanted to get the best training in educational handiwork, went to Sweden to study sloyd.

Della Vos. Victor Della Vos in 1868 organized the Imperial Technical School at Moscow. Della Vos made a very careful analysis of the mechanic arts to give a better and more practical type of instruction.

Some of the general principles of the Russian system as organized by Della Vos were:

1. Each art or distinct type of work has its own separate instruction shop; e.g., joinery, wood turning, blacksmithing, locksmithing, etc.
2. Each shop is equipped with as many working places and sets of tools as there are pupils to receive instruction at one time.
3. The courses of models are arranged according to the increasing difficulty of the exercises involved, and must be given to the pupils in strict succession as arranged.
4. All models are made from drawings. Copies of each drawing are supplied in sufficient number to provide one for each member of a class.
5. The drawings are made by the pupils in the class for elementary drawing, under the direction of the teacher of drawing with whom the manager of the shops comes to an agreement concerning the various details.
6. No pupil is allowed to begin a new model until he has acceptably completed the previous model in the course.

7. First exercises will be accepted if dimensions are no more than approximately correct; later exercises should be exactly to dimensions.
8. Every teacher must have more knowledge of his speciality than is necessary merely to perform the exercises in the course of instruction. He must keep constantly in practice so that his work may be an example of perfection to his pupils. (3, page 17)

In 1879 the Imperial Technical School exhibited in Philadelphia some of the wood and metal projects made in their school. This display of students' work caught the attention of some prominent educators of the United States.

Woodward. Professor Calvin M. Woodward of Washington University in St. Louis, Missouri, was a visitor to the Russian exhibition. He was so impressed with the Russian system that he wanted to offer manual training in Washington University's Polytechnic School.

He visioned mechanic arts analyzed and taught under the same principles that other courses in the curriculum were taught. Woodward favored four to eight hours of instruction per week in the shops to give boys instruction in the use of common tools. He felt that manual skills would help to prevent boys from becoming idle or being employed in already over-crowded occupations.

At Washington University under the direction of Dr. Woodward was organized the very first manual training high school in the United States.

Much controversy in educational circles resulted from the new manual training movement. Dr. Woodward claimed students who graduated from manual training high schools developed better intellectually and made better choices of occupations. In a speech delivered in Boston, Dr. Woodward said, "My education creed I put into six words: Put the whole

boy to school." (3, page 367)

Runkle. Dr. John D. Runkle, president of the Massachusetts Institute of Technology, also visited the Russian exhibition in Philadelphia. From his visit he concluded that shopwork should have a definite place in the training of engineering students. He had observed that students with shopwork who graduated from engineering readily secured positions in industry.

After returning from Philadelphia Dr. Runkle set to work immediately to incorporate several phases of the Russian system into the Massachusetts Institute of Technology. He built a series of shops in which was taught all of the shopwork needed by engineering students.

Dr. Runkle saw great possibilities for educational shopwork on secondary level. He organized a department called School of Mechanic Arts for boys who did not wish to take a regular college course. It was through the organizing of the School of Mechanic Arts that Dr. Runkle made his contribution to industrial arts in public education.

Dr. Runkle said of the Russian system:

The method is not only educational, but it constitutes the only true and philosophical key to all industrial education. If we can formulate into an educational method the arts which apply in any particular industry, we have only to group about these art courses such other subjects of study as obviously pertain to this industry to have a scheme which shall most surely and directly fit the student both in theory and practice to enter upon its pursuit.
(3, page 321)

Butler. Dr. Nicholas Butler, president of New York College for training teachers, made the following exposition in 1888 of what he considered the current philosophy of industrial arts.

It has been incontestably established that the powers

of thought, expression by delineation and construction, the judgment and the executive faculty, must be trained as well as the observation, the memory, and the power to learn. . . . That part of the training of the expressive faculties which is included in the terms "drawing" and "construction work" is what is meant nowadays by manual training. It is mental training by means of manual training. It is included in the psychologically determined course of study because it reaches important mental faculties which no other studies reach. It is also a most valuable and important stimulus to the receptive faculty of observation. The child can neither draw accurately nor construct correctly unless he observes acutely. (3, page 369)

Larrison. In 1888 Gustaf Larrison, a student of Salomon with wide experience in the sloyd system, came to Boston to organize a manual training school. He arranged his projects from simple to complex with reference both to powers of hand and mind. He believed that projects made by students should always be useful articles. He sought to broaden the aesthetic sense through freehand modeling, and he advocated individual instruction as opposed to class instruction.

Leavitt. Frank M. Leavitt was trained in the School of Mechanic Arts in the Massachusetts Institute of Technology. Leavitt was thoroughly drilled in the fundamentals of the Russian system. Leavitt taught with Larrison in Boston as a part of an experiment in methods of teaching manual training. Together they blended the best practices of both the sloyd system and the Russian system. They produced in Boston an American system of manual training that was pedagogically sound and practical. (3, page 434)

Richards. Professor Charles R. Richards, head of the manual training department, Teachers College, Columbia University, conceived to make life in school more real. In the curriculum, he suggested the use of

handwork which has significance and is of real interest to the pupil. He says of handwork, "On the side of the pupil, handwork is a medium of expression in terms of form, color, and material; in its relation to social life, it is essentially a means of interpreting art and industry. (3, page 453)

In 1904, Professor Richards wrote an editorial for the Manual Training Magazine in which he suggested the term, "industrial arts" be substituted for the term manual training. (3, page 453)

Bonser. In 1913 Frederic G. Bonser, professor of education at Teachers College, Columbia University, sought to help to reorganize the curriculum of elementary education by full use of industrial arts. Bonser says:

. . . it will at once appear that primary emphasis will not be placed upon the production of industrial commodities, but rather upon intelligence and cultivated taste in their choice and use. In no single field will all of the children function as producers, but from every field worthy of study they will all function as consumers. The largest problems are those of developing an appreciative understanding of industry as it is at the present time, realizing its social problems and cultivating intelligent judgment and appreciation in the selection and use of industrial products. (3, page 454)

Prosser. As secretary of the National Society for the Promotion of Industrial Education, Charles A. Prosser fought for the passage of legislation for federal support in encouraging vocational education in the trades, industries, agriculture, and home economics. He advocated the founding of agricultural experiment stations; and in providing means for the training of special teachers for agricultural, industrial, and home-economics education. After urgent demand by President Wilson, the Smith-Hughes Bill which incorporated the Prosser plan, was passed on February

23, 1917.

Down through the ages man sought a practical way to prepare his children to make the greatest success in life. Different philosophies were current from time to time. Comenius, Rousseau, Pestalozzi, and Froebel were among the most influential in starting movements toward modern philosophy of industrial education.

Industrial training movements came to the United States in the form of manual training. Industrial education was started in the United States in the 1870's because of a need in engineering schools for technical shop practice for engineering students. Some educators immediately saw the opportunity of offering shop work to supplement the school curriculum for students who could not or who had no desire to follow the regular course of study. Some educators saw the opportunity for making education more generally practical. Others thought of industrial education as a substitute for the vanishing system of apprenticeship. The focus of public interest on this new means of education caused its implementation in the form of manual training in numerous schools of the United States in less than a quarter of a century. Later concepts were developed for making industrial arts a part of the general education of the student and the modern industrial arts program became a reality.

Part B

Current Beliefs

Because of the scope of industry it is logical to expect a wide range of terminology used to describe programs for teaching about industry in the schools. From time to time new terms have been used to describe what was taught in a particular area or country. When new terms

came out they were an attempt to describe a little more accurately the subject field being taught or the result of a change in the philosophy regarding subject matter being taught.

General Education. The school has been the major influence in the general education of young people. A basic policy for the general education to be taught in the school might be "a place so organized and equipped to make it possible for an individual to constantly reconstruct and enrich his life through activity and intelligent analysis." (17, page 15)

Wilber gives the following objectives of general education: to transmit our democratic way of life, to improve the way of life, by effective critical thinking, and to meet the needs of individuals in the basic aspects of living. (17, page 15)

Since the beginning of civilization man has been concerned with preserving the way of life which he knew. If the culture of any nation were to be neglected for even a few generations their way of life would be destroyed. If a man did nothing besides preserve the culture there would be no progress or improvement. To meet individual needs implies studying the total organism in relation to all of the forces acting upon it.

Industrial Education. Industrial education is a term that has served a variety of meanings. In the earlier periods of the movement the meaning seemed to be similar to the present meaning of industrial arts. Later the term had for its meaning vocational training or training for a particular job. After carrying this meaning for a number of years industrial education had the connotation of general educational

training and information regarding industry. Dr. Nicholas Murray Butler says of industrial education:

Industrial education is an education in which the training of the pupils' powers of expression goes on side by side with the training of his receptive faculties, and in which the training of both is based on knowledge of things and not words merely. (13, page 6)

Later Dr. Butler says that industrial education ". . . is the general and common training which underlies all instruction in particular techniques." (13, page 6)

Manual Training. When industrial education was introduced into the United States in Philadelphia in 1876 manual training was the term which came into general usage. This term included all formal hand training based on industrial processes. Its use prevailed for many years after its introduction. Woodward said of the term manual training:

This term according to the best usage, signifies the systematic study of the theory and use of common tools, and the nature of common materials, elementary and typical processes of construction, and the execution and reading of working drawings. (13, page 8)

Manual Arts. The term manual arts came into use when the change of emphasis resulted in construction of articles of utilitarian value involving skill with tools and some freedom in the design instead of the formal hand-skill-producing exercises. Bollinger in his terminology study gave the following definition of manual arts:

A term used to describe such subjects as woodworking, mechanical drawing, metal work, printing, leather work, jewelry making, clay work, bookbinding, etc., when taught as a form of general education having for its chief purpose that of developing within the pupil, manual skill and an appreciation of good design and construction by practice in a variety of exercises and projects of personal value. (13, page 9)

Industrial Arts. Much of the confusion of terminology in industrial activity probably resulted from the failure to get a term adequate to cover the subject when it was first introduced. The term manual training probably put too much emphasis on the manipulative activity rather than on the content back of the activity.

Professor Bonser contributed extensively to the use and development of the term industrial arts. He says:

The industrial arts are those occupations by which changes are made in the form of materials to increase their values for human usage. As a subject for educative purposes, industrial arts is a study of the changes made by man in the forms of materials to increase their values, and of the problems of life related to these changes. (13, page 10)

Dr. Warner of Ohio State University gave the following definition of industrial arts:

Industrial arts is one of the practical arts, a form of general or nonvocational education, which provides learners with experiences, understandings, and appreciations of materials, tools, processes, products and of the vocational conditions and requirements incident generally to the manufacturing and mechanical industries. (13, page 10)

Newkirk and Johnson give the following definition of industrial arts:

Industrial arts is the study of materials and of the desirable changes made by hand or by the several manufacturing processes from the raw state into products designed to meet the consumer's needs and comforts for daily living. (10, page 5)

Wilber defines industrial arts as:

. . . those phases of general education which deal with industry--its organization, materials, occupations, processes, and products--and with the problems resulting from the industrial and technological nature of society. (17, page 2)

The above authors all stress educative purposes of industrial arts. However, only Warner and Wilber specifically mention use of industrial

arts in general education. They all mention materials, the use of skilled labor, and industry to make the finished products which serve society.

Objectives. In 1948 the State Advisory Committee for Industrial Arts in Oklahoma met and formulated the following list of objectives for industrial arts.

1. Industrial Arts is complementary to other school subjects and provides opportunity to apply knowledge learned in other school subjects.
2. Develops an appreciation of applied knowledge and skills.
3. Provides a knowledge of industrial drawing, the language of industry, and methods of expressing ideas by means of drawings.
4. Contributes to later vocational efficiency.
5. Stimulates students' knowledge and appreciation of good design.
6. Instills a satisfaction in personal creative achievement.
7. Develops the ability to analyze a job into its processes and organize them into correct procedure.
8. Contributes to consumer knowledge and induces an appreciation of the value of industrial materials and the need for their conservation.
9. Trains in industrial and home safety (including fire prevention).
10. Acquaints students with industrial information and induces a recognition of the standards of industrial attainment.
11. Develops avocation interests.
12. Trains individuals to be more resourceful in dealing with the material problems of life.
13. Stimulates correct attitudes toward an orderly shop and home and their environment.
14. Aids in making vocational choices.

15. Develops qualities of leadership.
16. Develops cooperative attitudes in work habits.
17. Develops an appreciation of the dignity and importance of the occupation of one's neighbor. (26, page 3)

This list represents the thinking of some of the most outstanding leaders in education in the state of Oklahoma. They are thinking of industrial arts in terms of general education, not as a separate field of instruction.

Dr. Louis V. Newkirk and William H. Johnson formulated the following list of objectives:

1. Develop the ability to plan and complete projects, using a variety of tools and construction materials in a workmanlike manner.
2. Give experiences that will increase understanding of modern industry and that will lay the foundation for and help determine vocational interests.
3. Develop the ability to read and make working drawings, charts, and graphs.
4. Develop the ability to recognize quality and design in the products of industry.
5. Develop the ability to maintain and service in a safe and efficient manner the common products of industry.
6. Provide an objective medium for expression in mathematics, science, language, arts, and social science.
7. Develop an interest in crafts as a valuable medium for creative expression in leisure time.
8. Give experiences that will develop social understanding and ability to work effectively with others either as a leader or as a member of the group. (10, page 7)

Newkirk and Johnson also stress the fact that the objectives of industrial arts and general education are inseparable.

Wilber gives the following list of objectives:

1. To explore industry and American industrial civilization

in terms of its organization, raw materials, processes and operations, products, and occupations.

2. To develop recreational and vocational activities in the area of constructive work.
3. To increase an appreciation for good craftsmanship and design, both in the products of modern industry and in artifacts from the material cultures of the past.
4. To increase consumer knowledges to a point where students can select, buy, use, and maintain the products of industry intelligently.
5. To provide information about, and--in so far as possible--experiences in, the basic processes of many industries, in order that students may be more competent to choose a future vocation.
6. To encourage creative expression in terms of industrial materials.
7. To develop desirable social relationships, such as cooperation, tolerance, leadership and followership, and tact.
8. To develop a certain amount of skill in a number of basic industrial processes. (17, page 42)

Industrial arts objectives are considered by most current leaders in connection with the objectives of general education. They mention materials, processes, skills, appreciations, information, and the social implications of modern, industrial America and the needed development of our youth to live in the present and in the future and contribute to the democratic way of life.

To meet the general objectives of industrial arts it is necessary to have good classroom control. Effective discipline in industrial arts will be discussed in the next chapter.

CHAPTER III

EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS

Good classroom teaching involves having a definite understanding of the meaning and objectives of effective discipline. The teacher needs a broad understanding of democracy and its application in the classroom.

Part A

Discipline

Many different meanings of discipline have been used in education practices as education has advanced through the years.

Definitions. Webster gives the following definition of discipline: "Training which corrects, molds, strengthens, or perfects." (16, page 287) Sheviakov and Redl, in a book published by the National Education Association, define discipline as ". . . organization of one's impulses for the attainment of a goal." (29, page 4) Struck, in his book, Creative Teaching, wrote:

. . . discipline is a means of bringing about a better social order through developing, in each individual, right habits of conduct, appropriate patterns of thought, and worthy ideals that shall serve as goals and standards of achievement. (14, page 71)

In the past people have thought of discipline as restraint and order obtained in a negative manner or as a means to an end. Older concepts of discipline stressed conformity which to some degree meant regimentation. Currently in education stress is placed on the provision for individual differences, rules and regulations lose much of their importance

except as they are understood and accepted by the students who are affected. It has often been said that boys and girls, not subject matter, should be taught in the schools.

Mays and Casberg give the following definition of good shop discipline:

A well-disciplined class of pupils is one where all members are busily engaged, carrying on the activities which are appropriate at the moment in an orderly and effective manner. (9, page 145)

School discipline involves the control of individual impulses to attain a group goal. Struck says of school discipline:

School discipline is bigger than the accumulations of school regulations and all punitive measures. Discipline is the total influence of the school, which seeks, first to rationalize, and second to habituate, social conduct. (14, page 70)

The industrial arts teacher is concerned with both individual and group discipline.

Personal discipline is discipline which consists of mutual respect, confidence, and love between the pupil and the teacher. (12, page 30)

These factors are difficult to develop if they do not instinctively exist. No teacher can have a personality broad enough to sympathize with all of the frailties or stimulate all of the virtues of each student. Another limiting factor of the personal type discipline is the short duration of the relationship of the student and the teacher. The type of influence which is lasting over the years is influence founded upon personal inspiration which is more or less independent of the teacher. Rather it is the combined influence of the whole school.

Social discipline is the highest type of discipline. In social discipline the teacher's authority very seldom appears in the student-

teacher relationship. Orders are seldom given, but the teacher's suggestions are frequent and welcome. The pupil unconsciously tends to discipline himself. He is made to feel that he is an important working part of the school society. In social discipline, "The school spirit and atmosphere have reached the point where the lateral pressure exerted by the pupils upon each other is in harmony with the spirit exerted by the teacher." (12, page 81) In this form of discipline the forces of control are not all coming from above but are radiated from all sides. There is an influence through the building of a social consciousness for the students to govern themselves and to automatically punish any offender who disrupts the efficiency of the class.

Effective teachers all make use of social discipline. The range varies from reasonable teacher--pupil cooperation in class work to loyalty to school and student government. This method is indirect and hard to attain, but its results are highly constructive and inspirational. For administering a social type of discipline the teacher needs ingenuity, personality, and a wide range of adaptability. Training in this type of discipline gives students self-direction and social responsibility which serve as a cornerstone of our democratic way of life.

Objectives. Discipline has for its immediate purpose in the school shop, laboratory, or classroom an efficient, and social atmosphere where worthy instruction is possible. Struck gives a good list of goals for shop discipline. He says, "Democratically conceived discipline has for its goals. . .

1. To stimulate self-activity rather than teacher activity.
2. To foster initiative and resourcefulness in pupils.

3. To encourage careful analysis and critical thinking among pupils.
4. To develop habits of cooperating with others.
5. To build character traits needed for self-government and for group welfare.
6. To enable the pupils to acquire knowledges and skills that will function effectively in an ever-changing, complex, and challenging world. (14, page 75)

The teacher's objectives, whether they are broad and inclusive or narrow and lacking in vision, will to a great degree reflect the type of discipline which he uses in his classroom. A well disciplined group is friendly and congenial. Pupils are honest, industrious, cooperative, and interested in their work. They have learned self-government, therefore, the teacher's guidance is not often obvious.

Erickson says of discipline, "The ultimate purpose is, of course, a self-discipline that is a result of accepted principles of democratic living and individual adjustment." (5, page 93) The atmosphere of the school should be as near as possible to the real life of the student. The school shop has an advantage in this, because there is a greater chance of freedom for student action. The student can participate in lifelike situations to a greater extent than in most other classrooms.

Sheviakov and Redl give the following list of objectives of discipline in the classroom:

1. We want discipline based on devotion to humanitarian principles and ideals such as freedom, justice, and equality for all rather than discipline based on a narrower, more egotistic affiliation of "My Group."
2. We want discipline which recognizes the inherent dignity and rights of every human being, rather than discipline attained through humiliation of the undisciplined.

3. We want self-direction, self-discipline rather than discipline based on obedience to a Fuhrer.
4. We want discipline based on understanding of the goal in view rather than discipline based on "taking someone else's word for it." (29, page 7)

The objectives given by Sheviakov and Redl represent the thinking and ideals of men and women who made this country great. These objectives represent the desired attitudes of students toward life and other human beings. They represent the goals of preservation and development of the truly democratic way of life.

Parents expect teachers to maintain control of students; a lack of control usually brings severe criticism of the class, teacher, and the administration. Two of the most common questions asked by principals and superintendents when hiring teachers are, "How is his classroom discipline?" "Can he discipline students?" (22, page 65) The consensus of opinion seems to be that the ability to maintain discipline does not necessarily insure teaching success, but at the same time no teacher can be successful without the ability to manage and control students.

Part B

Contributing Factors of Good Discipline

In this part an attempt will be made to give some of the factors contributing to good discipline and some of the measures which may be used to get and maintain good classroom control. An attempt will be made to give tried positive measures.

Teacher Factors in Discipline. The classroom teacher usually has within his power most of the means which will affect good classroom control. To best utilize these means it is necessary for the teacher to

take inventory of himself, his presentation, and the students reaction to him from time to time. Bishop Spaulding once said of the teacher, "What the soul is to the body, what the mind is to the man, that the teacher is to the school" (14, page 53)

One of the most important traits of successful teachers is sincerity. Teaching requires courage, strength of purpose, and leadership ability. These qualities are usually of short duration if the teacher lacks sincerity. "Neither cleverness nor craftiness can take the place of simple, straight-forward, downright honesty of heart. It is the bed-rock of a teacher's character." (14, page 54)

Sympathy is another quality of successful teachers. With sympathy one has a better insight into human nature. A student usually responds to a teacher who is interested in him. Sympathy causes self-restraint, good temper, and that valued quality known as tact.

When criticism is used it should be used in a constructive manner. Giving a helping hand to the student helps overcome his sense of failure and restores confidence. This can be an impelling factor in creating a desire for good behavior.

Teachers should have a wide range of interest. A breadth of interest will better enable a teacher to inspire and motivate his students.

Before one can properly lead others, he must exhibit self-control. He should be calm under stress, poised, reserved, and show at all times that he is master of his emotions. A teacher must be forceful and decisive to lead others in the classroom. A forceful personality shows courage and straight-forwardness typical of good leaders.

A good teacher displays an open mind and a willingness to be shown. He tries to see the other person's point of view. A good teacher should

be enthusiastic. Enthusiasm shows in the voice, face, and bearing. Pupils sense and reflect this enthusiasm or lack of enthusiasm.

There must be a definite plan of instruction. The teacher's methods and objectives should be clear to him, and he should thoroughly know the course which he is to teach. The teacher must be well acquainted with the tools and materials which are at his disposal. He should carefully correlate his units of instruction, the shop curriculum and the curriculum of the entire school.

The experienced teacher makes adequate lesson plans, carefully prepares his demonstrations, uses adequate reference material, and plans for visual aids to avoid lapses of interest.

If frequent evaluation of instruction is not made, a teacher tends to teach the same things in the same way, year after year. The teacher needs to constantly seek new and better, ways of presentation. In the appendix of this report is a list of questions which a teacher could profitably use from time to time to measure the efficiency of his presentation. By considering this list of questions the teacher can get a view of himself as his students see him.

Students coming into the shop for the first time are quite curious about the tools, machines, materials, and the instructor. This newness of the situation causes some emotional stress. To put the pupils at ease as quickly as possible, the teacher may introduce himself, give some of the broad possibilities of the course, and conduct a tour of the shop-room. As soon as the students have been put at ease the instructor may assign work stations and proceed with the instruction.

Democratic Practices. Democracy is more than a show of hands.

Madelaine M. Murphy, in the Journal of Education, says:

Democracy implies a belief in the integrity and dignity of the individual. The personality of each child is respected by the teacher and his classmates. Free discussion is encouraged and parent-teacher conferences are arranged to study children's needs, interests, and aptitudes. Specific activities are designed to help children develop responsibility, and habits of systematic and organized thinking.
(24, page 214)

Students engaged in a discussion and planning session are learning just as surely as when they are working with tools and materials. Democratic procedures in the classroom are not necessarily time consuming. They give an alternative to teacher direction and help to eliminate the problems with which he is most concerned. The following are a list of things which a teacher may do to promote student self-government.

"Help students uncover and clarify objectives." It is agreed among most teachers that learning is most effective when it is purposeful. The teacher's objectives-for the student are not nearly as important to him as the objectives that he has for himself. Teachers may help the student find his objectives through giving him a selection of projects or work to choose from. Work may be chosen that has meaning for him.

"Encourage students to design projects and plan procedures." In designing his own projects the student gets experience in thinking of his own needs and interests and gets valuable problem solving experience.

"Organize the instructional program around the needs of the learner." When a student has an immediate problem he becomes an interested learner. One of the best times to show a student how to sharpen a plane iron is when the plane iron is dull and he has found that it will not work well. The student then has strong motivation for learning and will listen and watch attentively while he is being shown.

"Permit the student to participate in planning operational procedures." Some teachers think of the shop as his and only his responsibility. If tables are left uncleaned at the end of the period, the teacher will usually get a brush and clean them. If tools are left out he will see that they are properly put in place. When students are made to feel that the shop, tools, and materials in the shop are theirs to use and to be responsible for, a step has been made in the direction of good shop discipline.

Educational values result when pupils are allowed to have a part in the managing activities of the classroom. The teacher benefits in that he is relieved of some time-consuming and uninteresting work. Students gain self-reliance and self-importance by having responsibilities in class. Whenever responsibilities can be assigned to students which have educative value and relieve the teacher to have more time for instruction, the program is greatly improved. Student responsibilities should be rotated to give a variety of activities and leadership. Students benefit when the teacher has more time to give them individual instruction and attend other teaching duties. The teacher, of course, always has the responsibility of seeing that the students carry out their jobs in a creditable manner.

Students can be responsible for the care of expendable supplies, care of equipment, safety, reference materials, shop clean-up, and supervising the lighting, heating, and ventilation. Together the students and teacher can select students to serve in a managerial capacity to be responsible for the details of shop administration. Students may serve as shop foreman, class librarian, group chairman, tool checker, and safety foreman.

"Help students with personal problems." (18, pages 246-248) When the teacher helps the students with their personal problems he opens the door to better student-teacher relations. Students approach a teacher who they feel will give them help with problems that are not often directly related to school. These problems are very real to the student even though the teacher does not feel that they are of special importance. The teacher by helping with students' personal problems can do much toward eliminating factors which later might develop into classroom discipline problems.

Physical Factors in Discipline. Various factors of the physical atmosphere have a definite bearing on the students. Color, lighting, adequate space for working, cleanliness, arrangement of tools, arrangement of room, display of bulletin board materials, and many other physical factors have a definite influence on shop discipline.

A neat, clean, orderly shop should be a matter of course. Tools should be in good working order and well arranged; supplies kept in suitable places and dispensed efficiently; and projects, books, and personal property neatly stored.

The teacher and the pupils should have a common understanding of conditions that foster good working conditions. An old, nevertheless, very good policy is, "A place for everything and everything in its place."

Good working conditions require adequate lighting of the entire shop, especially around working stations and power tools. If it is possible, avoid south light because of the direct glare of the sun's rays. Windows on the north and east are best for admission of natural light. A minimum of window area for the shop should be from one-third to one-half of the floor area. "Good lighting facilities should provide an

intensity of 30 foot-candles at bench height in all areas." (21, page 60)
Lights should be of a type to prevent undue glare.

Ventilation and temperature should be carefully regulated. Room temperature should be between 65 and 70 degrees. There should be a constant supply of fresh air.

Color tints and shades have a definite effect on morale and efficiency. Eyestrain and fatigue can be minimized by the correct use of color. "Light gray, pale green, or light blue are suitable colors for portions of the wall which are at the student's eye level or in their normal range of vision." (21, page 60)

Approaches to Discipline. Irvin I. Keller, in an article for the Bulletin of the National Association of Secondary-School Principals, gives the following formula for good discipline:

The importance of clear objectives, careful planning, interesting presentations of lessons, good motivating techniques, appropriate learning activities, and expediting of routine matters are emphasized as preventatives of disciplinary problems. (22, page 66)

Struck gives the following list of good disciplinary practices:

1. Win the confidence of pupils.
2. Recognize individual differences.
3. Employ positive rather than negative procedures.
4. Lead through tactful means.
5. Weigh motives and causes.
6. Nip disorder in the bud.
7. A good sense of humor is helpful. (14, page 81)

Students should be made to understand that the teacher is striving to develop a situation which is happy, serves individual needs, and one which is natural and life-like. Freedom that is granted must not be misused. The negative side of discipline should not be stressed by making a large number of rules. It is better to have only a few rules which

can and will be carried out. Students should be made to see the necessity and the fairness of those rules that are made.

A positive step toward good discipline and preparation for the world of work is to make every minute count. Little misbehavior results when students are busily engaged in an interesting activity. Students should be taught to quickly get out tools and materials at the beginning of the period and to take no unnecessary time in cleaning up at the end of the class period.

Individual records are invaluable for guidance and counseling of students. Cumulative records should be kept of the whole school life of the student. Information should be filed in an individual folder for each child. If a problem should arise, the cumulative record will be invaluable in determining a solution. The cumulative record should contain information about the social status and occupation of the family, religion, health, I.Q., rates on personality tests, interests, and any other information to give the teacher a better understanding of the student.

The following suggestions for effective discipline in the classroom are made by Delwin G. Schubert, in the Journal of Education. Comments are by the author.

1. "Convince the majority of the students that your classroom is a fascinating and exciting place where interesting things happen." This is one of the most fundamental needs in maintaining good classroom discipline. Each individual child has the fundamental need of gaining recognition in his group. When the teacher has established rapport and the majority of the students have decided that what the teacher has to offer is interesting and of value, they will show disapproval of any

act by a member of the class to disrupt the activity. This disapproval tends to hold the child in check.

2. "Win over classroom leaders." Find the classroom leaders, those who are socially dominant and whom the other children look to for leadership. These children can be found by careful observation or through the use of socio-metric charts. Hold individual conferences with the leaders. Let them know that you understand their wishes, interests, and problems. If they dislike you they are apt to influence many others.

3. "Get to know the children by name as soon as possible." One may use a seating chart or any other helpful method. Anonymity contributes to confusion and disorder.

4. "Build a repertoire of unobtrusive classroom methods to take care of those children who do not respond properly." Using a pupils name in the course of the presentation catches the attention of an unattentive student. Sometimes asking a student who is apparently occupied with something else catches his interest. Often just pausing for a few moments will draw attention quickly.

5. "Deal individually with serious offenders and look for underlying causes." More will be gained by seeing a child who was defiant or unmanageable in private. Give the child a chance to voice his grievances and show an interest in him. Learn the cause of the misbehavior. If necessary to uncover the basic cause, visit with the parents about the child.

6. "Use praise as well as reproof." Usually praise is more effective than reproof. When possible let positive discipline be the rule.

7. "Rarely send a child to the principal's office." When a teacher has sent a child to the principal he has admitted to the child and to

the principal that he has lost control and is now seeking outside help.

This may give the child a sense of victory.

No disciplinary measure should be taken that will crush a child's spirit or initiative. It is important in the regard that children know what they may and may not do. Teachers must be consistent. Vascillation and inconsistency in disciplinary procedures will lead to confusion, emotional strain, resentment, and the desire to oppose authority. (28, page 112)

Each student has different personality traits and any practice in disciplining him must recognize these differences. Any disciplinary practices should be consistent with democratic principles.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Discipline in the classroom has its foundations on democratic practices. Individual worth and dignity of each person is of prime importance. Individual differences, needs, and abilities must be considered. Students should have a chance to develop as good citizens.

Summary. In democratic classrooms, rules and regulations have lost much of their past emphasis. Students have a part in making the rules which serve to govern their conduct. They understand and see the fairness and have a part in administering the rules. Teacher authority seldom is used directly to get and maintain control. Students tend to govern themselves by exerting on each other a pressure to promote a situation where each person can develop to his maximum. Each pupil is made to feel that he has a place and is contributing something of value to his class. Teachers plan for student leaders in the classroom to give leadership experience and a feeling of belonging. Many of the details which were ordinarily handled by the teacher serve as educational experiences for the student and relieve the teacher for more teaching.

Since the teacher is the most important motivating factor in the smooth and effective functioning of the classroom, he must constantly evaluate his methods, seeking new and better ways of teaching. He must develop tact, sincerity, and understanding.

Physical conditions in the shop should be conducive to a student's pride in his work and pride in the class. This should be a clean, well lighted, and well arranged shop. Colors used in the shop should be agreeable and pleasant. The temperature and ventilation should be regulated for maximum comfort. Comfortable pleasant surroundings are conducive to good discipline.

Effective classroom discipline is promoted through continuous and interesting activity. When students select and plan their own projects, interest reaches a high level. Student-selected projects help the student find his likes and his abilities and help him develop definite objectives.

Recommendations. The teacher should let the students know that he is interested in them and their problems. Eliminate conditions which might cause disciplinary problems. Employ measures of discipline which are constructive. Show students how the shopwork fits their needs and interests. Develop a repertory of effective classroom methods which tend to create little attention to themselves. Give credit for good work; use deserved praise freely. Deal with students who become serious problems individually. Keep a cumulative record of each individual to help in solving any problems which arise.

A SELECTED BIBLIOGRAPHY

A. Books

1. Anderson, Lewis Flint. History of Manual and Industrial School Education. New York: D. Appleton and Company, 1926. 251 pp.
2. Bennett, Charles A. History of Manual and Industrial Education to 1870. Peoria, Illinois: The Manual Arts Press, 1926. 461 pp.
3. Bennett, Charles Alpheus. History of Manual and Industrial Education, 1870 to 1917. Peoria, Illinois: The Manual Arts Press, 1936. 566 pp.
4. Bonser, Frederic G. Industrial Arts for School Administrators. New York: Bureau of Publications, Teachers College, Columbia University, 1930. 95 pp.
5. Ericson, Emanuel E. Teaching the Industrial Arts. Peoria, Illinois: The Manual Arts Press, 1946. 384 pp.
6. Friese, John F. Course Making in Industrial Education. Peoria, Illinois: The Manual Arts Press, 1946. 297 pp.
7. Geisel, John B. Personal Problems. Boston: Houghton Mifflin Company, 1949. 480 pp.
8. Lindberg, Lucile. The Democratic Classroom. New York: Bureau of Publications, Teachers College, Columbia University, 1954. 115 pp.
9. Mays, Arthur B., and Carl H. Casberg. School Shop Administration. Milwaukee: Bruce Publishing Company, 1943. 218 pp.
10. Newkirk, Louis V., and William H. Johnson. The Industrial Arts Program. New York: The Macmillan Company, 1948. 357 pp.
11. Silvius, Harold G., and Estell H. Curry. Teaching Successfully the Industrial Arts and Vocational Subjects. Bloomington, Illinois: McKnight and McKnight Publishing Company, 1953. 339 pp.
12. Smith, Walter Robinson. Constructive School Discipline. New York: American Book Company, 1936. 336 pp.
13. Stombaugh, Ray. A Survey of the Movements Culminating in Industrial Arts Education in Secondary Schools. New York: Teachers College Contribution to Education, No. 270, Columbia University, 1936. 192 pp.

14. Struck, F. Theodore. Creative Teaching Industrial Arts and Vocational Education. New York: John Wiley and Sons, Inc., 1938. 623 pp.
15. Vaughn, Samuel J., and Arthur B. Mays. Content and Methods of the Industrial Arts. New York: The Century Company, 1924. 397 pp.
16. Webster's Collegiate Dictionary (5th ed.). Springfield, Massachusetts: G. and C. Merriam Company, 1947. 1275 pp.
17. Wilber, Gordon O. Industrial Arts in General Education. Scranton: International Textbook Company, 1948. 362 pp.

B. Other Sources

18. Baysinger, G. "Teacher, Student Relationships--Two Patterns of Operations," Industrial Arts and Vocational Education, XLII (October, 1953), pp. 245-249.
19. Butterworth, Ivan. "Discipline," The Bulletin of the National Association of Secondary-School Principals, XXXVIII (November, 1954), pp. 70-76.
20. Grayshon, Alfred. "How to Create an Ideal High School Shop," Industrial Arts and Vocational Education, XLIII (March, 1954), pp. 121-122.
21. Heid, Eckhart J., and Gordon L. Paulsen. "Industrial-Arts Shop Planning Factors," Industrial Arts and Vocational Education, XLIV (March, 1955), pp. 59-66.
22. Keller, Irvin A. "A Disciplinary Policy as an Effective Aid in Secondary Classroom Administration," The Bulletin of the National Association of Secondary-School Principals, XXXVIII (October, 1954), pp. 65-69.
23. Minor, Norris E. "Industrial Arts and Juvenile Delinquency," Industrial Arts and Vocational Education, XXXIX (January, 1950), 15.
24. Murphy, Madelaine M. "Democracy in Action," Journal of Education, CXXXVI (April, 1954), pp. 214-215.
25. Myers, Ward L. "Discipline: Light Touch or Heavy Hand," Industrial Arts and Vocational Education, XL (September, 1951), pp. 273-274.
26. Oklahoma State Department of Education. Industrial Arts in Oklahoma. Bulletin No. 105, 1951. 129 pp.

27. Schad, Joseph A. "Device for Improving Classroom Instruction," Industrial Arts and Vocational Education, XLIII (September, 1954), pp. 231-232.
28. Schubert, Delwyn G. "Discipline Without Disruption," Journal of Education, CXXXVI (January, 1954), pp. 112-113.
29. Sheviakov, George V., and Fritz Redl. Discipline for Today's Children and Youth. Washington: Department of Supervision and Curriculum Development, National Education Association, 1944. 64 pp.
30. Voorhees, Leslie. "Solving High School Discipline Problems," The Bulletin of the National Association of Secondary-School Principals, XXXVIII (November, 1954), pp. 61-65.
31. Wenger, Paul N. "Check List for Planning and Evaluating School Shops," Industrial Arts and Vocational Education, XLII (March, 1953), pp. 65-67.

APPENDIX

Lesson Evaluation Check List (27, Page 232)

Procedure: Insert title of lesson in the space provided and in the appropriate column opposite each statement, place a check mark to indicate your best judgment of the condition. Statements which appear to be irrelevant to the lesson topic are to be left blank.

Title of Lesson: _____

Part A

<u>I. Preparation or Motivation Stage:</u>	<u>No</u>	<u>Partly</u>	<u>Yes</u>
Did I (or the instructor):			
1. Have all teaching materials and aids ready for the lesson?	---	-----	---
2. Make proper arrangements for ventilating and lighting the room?	---	-----	---
3. Arrange the pupils so that all could see the demonstration or hear the lesson?	---	-----	---
4. Review the previous lesson?	---	-----	---
5. Make an effort to ascertain what the pupils already knew about the topic under consideration?	---	-----	---
6. Utilize past experiences of learners to introduce the lesson?	---	-----	---
7. Ask questions which tended to arouse and direct the thinking of the learners?	---	-----	---
8. Create in the mind of the learners a state of readiness for the topic to be discussed?	---	-----	---
9. Make the correct transition from the preparation stage to the presentation stage of the lesson?	---	-----	---
10. Make clear to the class the main objective of the lesson?	---	-----	---
 <u>II. Presentation Stage:</u>			
Did I (or the instructor):			
11. Explain new terms or words?	---	-----	---
12. Accomplish the main function of the presentation stage which is to add new ideas to those already in the minds of the learners?	---	-----	---

	<u>No</u>	<u>Partly</u>	<u>Yes</u>
13. Adhere to the content that stemmed from the objectives set forth for the lesson?	---	-----	---
14. Present the ideas in the most effective order?	---	-----	---
15. Make certain that each point was understood before proceeding to the next point?	---	-----	---
16. Perform the demonstration or make the explanation at the correct pace for understanding?	---	-----	---
17. Appear to have a mastery of the procedures to be followed?	---	-----	---
18. Make adequate provision for asking questions?	---	-----	---
19. Emphasize the more important ideas of the lesson?	---	-----	---
20. Perform the demonstration in a creditable manner?	---	-----	---
21. Present a lesson which contained the recommended number of new ideas?	---	-----	---
22. Employ praise during the lesson?	---	-----	---
23. Stress safety?	---	-----	---
24. Have a thorough acquaintance with the subject under discussion?	---	-----	---
25. Employ or use several methods to put over the subject matter of the lesson?	---	-----	---
26. Utilize the drawing out process rather than the "pouring in" process?	---	-----	---
27. Summarize the main points of the lesson?	---	-----	---
28. Make the learners aware of the standards to be achieved?	---	-----	---

III. Application Stage:

Did I (or the instructor):

29. Make provision for the learners to perform the operation or carry out an assignment directly related to the material presented?	---	-----	---
30. Put the pupils to work on what was given in the presentation stage of the lesson?	---	-----	---
31. Check the learners to see whether they could do the work?	---	-----	---

	<u>No</u>	<u>Partly</u>	<u>Yes</u>
32. Make a noticeable effort to correct the weak points in the pupil's knowledge or in the skills being performed?	---	-----	---
33. Employ the application phase of the lesson as a checking and re-instruction period?	---	-----	---
IV. <u>Testing Stage:</u>			
Did I (or the Instructor):			
34. Check the learner's work against criteria previously determined?	---	-----	---
35. Have the learners perform the operation or apply the knowledge unaided and undirected?	---	-----	---
36. Have appropriate criteria for evaluating the learner's work?	---	-----	---
37. Check to see whether the objectives have been achieved?	---	-----	---

PART B

V. General Considerations:

Did I (or the instructor):			
1. Employ good judgment in handling all phases of the lesson?	---	-----	---
2. Maintain good posture?	---	-----	---
3. Talk loud enough?	---	-----	---
4. Use a vocabulary appropriate to the class?	---	-----	---
5. Manifest drive and enthusiasm?	---	-----	---
6. Refrain from talking to the walls and chalk board?	---	-----	---
7. Avoid displaying peculiar mannerisms which could be controlled?	---	-----	---
8. Stay within the time allotted for the lesson?	---	-----	---
9. Seem to be free from nervousness and fidgetiness?	---	-----	---
10. Enunciate words properly?	---	-----	---
11. Secure active student participation during the lesson?	---	-----	---
12. Avoid errors when asking questions?	---	-----	---
13. Employ correct grammar?	---	-----	---
14. Handle well the questions asked by the pupils?	---	-----	---

	<u>No</u>	<u>Partly</u>	<u>Yes</u>
15. Ask pertinent and thought provoking questions?	—	—	—
16. Make general use of the chalk board to put over material?	—	—	—
17. Establish and maintain rapport?	—	—	—
18. Maintain the interest of the class during the discussion phases of the lesson?	—	—	—

VITA

Norval D. Fields
Candidate for the Degree of
Master of Science

Report: EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS

Major: Industrial Arts Education

Biographical:

Born: November 10, 1926, Gage, Oklahoma.

Undergraduate Study: Panhandle A. and M. College, Goodwell, Oklahoma, B.S., Commerce, May, 1950.

Graduate Study: Oklahoma A. and M. College, Stillwater, Oklahoma, Graduate Center, Goodwell, Oklahoma, 1950 and 1953. Oklahoma University, 1954 and 1955. Oklahoma A. and M. College, Stillwater, Oklahoma, Summers 1952 and 1955.

Experience: Entered Army March, 1945, served in Ordnance Department. Discharged December, 1946. Taught industrial arts in high school from 1950 to 1955.

Organizations: Masonic Lodge, Methodist Church, Oklahoma A. and M. College Students Industrial Arts Club, Oklahoma Education Association, National Education Association.

Date of Final Examination: July, 1955.

REPORT TITLE: EFFECTIVE DISCIPLINE IN INDUSTRIAL ARTS

AUTHOR: Norval Dee Fields

REPORT ADVISOR: Cary L. Hill

The content and form have been checked and approved by the author and report advisor. The Graduate School Office assumes no responsibility for errors either in form or content. The copies are sent to the bindery just as they are approved by the author and faculty advisor.

TYPIST: Norval D. Fields