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Scope and Method of Study: The purpose of this study is to show the relationship and objectives of industrial arts and the rehabilitation therapies program. The major portion of the study is composed of reviews of articles pertaining to the rehabilitation therapies program; these articles have been published in periodicals, brochures and pamphlets, The American Journal of Occupational Therapy, Physical Medicine and Rehabilitation, and Veterans Administration Pamphlet 10-43, 1956. The writer has attempted to show the past, present and different types of programs relative to the need of trained industrial arts teachers in the field of rehabilitation therapies. An attempt has been made to show the need for an accelerated program in our colleges to fill the need for trained rehabilitation personnel in the ever expanding rehabilitation program.

Findings and Conclusions: For many centuries people have used industrial arts and occupational therapy in various forms to attain self independence and for the preservation and rehabilitation of a way of life.

ADVISOR'S APPROVAL

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THE RELATIONSHIP OF INDUSTRIAL ARTS  
TO OCCUPATIONAL THERAPY

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By

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W. J. B.

## TABLE OF CONTENTS

Chapter	Page
I. AN INTRODUCTORY STATEMENT . . . . .	1
The Problem . . . . .	1
Need for the Study. . . . .	1
Objectives of the Study . . . . .	2
Delimitations of the Study. . . . .	2
Method of Research. . . . .	2
What Is Occupational Therapy. . . . .	3
Review of Similar Studies . . . . .	3
II. HISTORY OF OCCUPATIONAL THERAPY AND INDUSTRIAL ARTS. . . . .	4
Part A. History of Occupational Therapy. . . . .	4
King Saul and David . . . . .	4
The Greeks. . . . .	5
The Egyptian Priests. . . . .	5
Hippocrates . . . . .	5
The First Physician . . . . .	5
The First Mental Hospital . . . . .	6
The Humanitarian Urge . . . . .	6
The Early 1700's. . . . .	6
Mrs. Eleanor Clark Slagle . . . . .	7
First School of Occupational Therapy. . . . .	7
Objectives of Occupational Therapy. . . . .	7
Occupational Therapy Program. . . . .	8
Part B. History of Industrial Arts . . . . .	10
Barbaric People . . . . .	10
The Savage. . . . .	11
Labor and Learning Before the Renaissance . . . . .	11
Maron's Treatise. . . . .	11
The Russian System of Industrial Arts . . . . .	11
Home Sloyd System . . . . .	12
The Introduction of Machines. . . . .	12
The Manual Training School. . . . .	12
Recent Developments in Industrial Arts. . . . .	13
Part C. Philosophy of Industrial Arts. . . . .	13
Industrial Arts . . . . .	13
Objectives of Industrial Arts . . . . .	14

Chapter	Page
Summation . . . . .	15
III. RELATIONSHIP OF INDUSTRIAL ARTS AND OCCUPATIONAL THERAPY . . . . .	16
Part A. Occupational Therapy . . . . .	16
Doctor Edward Lowman. . . . .	16
The Breadth . . . . .	17
The Restrictions. . . . .	17
The Efficacy. . . . .	18
Must Learn New Trades . . . . .	18
Doctor William J. Mayo. . . . .	19
Occupational Therapy. . . . .	19
The Rehabilitation Workshop . . . . .	21
White in England. . . . .	21
Part B. Industrial Arts. . . . .	22
Printing. . . . .	23
Woodworking . . . . .	23
Doctor A. B. C. Knudson . . . . .	23
Manual Arts Therapy . . . . .	24
Case Histories. . . . .	24
The Belief of the Writer. . . . .	25
IV. A RESUME. . . . .	26
Summary . . . . .	26
Recommendations . . . . .	26
APPENDIX: A SELECTED BIBLIOGRAPHY. . . . .	29

## CHAPTER I

### AN INTRODUCTORY STATEMENT

The material contained in this report covers a part of the development of industrial arts and occupational therapy from primitive man to date. Industrial arts education has been, and still is, a guide to the stabilization of a nation's economic progress. An attempt will be made to show the relationship of industrial arts to occupational therapy and the need for more industrial arts students in the field of occupational therapy.

The Problem. The demand for industrial arts students as occupational therapists and manual arts therapists in the field of physical medicine.

Need for the Study. The writer's desire for more information concerning occupational therapy, its relation to industrial arts, and the requirements for entrance into an accredited school of occupational therapy have caused him to make a survey to determine the possible relationship. The demand for registered occupational therapists is far greater than the supply. It is estimated that 2,700 therapists are in active practice. Another 2,156 potential therapists are enrolled in accredited schools. The projected need is for



more than 8,000 therapists in all the fields of psychiatry, general medicine and surgery, pediatrics, physical disabilities and tuberculosis.

There are twenty-seven schools in the United States accredited by the Council on Medical Education and Hospitals of the American Medical Association.

Objectives of the Study. The objectives of this study are: (1) to present a brief history of occupational therapy and industrial arts and its development, (2) to propose methods of using more machines in the application of occupational therapy, and (3) to present the need of trained occupational therapists in colleges, universities and rehabilitation centers.

Delimitations of the Study. It is not the purpose of this study to give technical information concerning occupational therapy and industrial arts. A general discussion of the various methods of occupational therapy and their application to the handicapped will be presented.

Method of Research. The library, personal visitation and interview will be used in the preparation of this study. Books, magazines, reports and pamphlets will be obtained from the library of Oklahoma State University, Stillwater, and the personal library of Doctor Earl Duwain McBride; Doctor Adams, Veterans Administration Hospital, Muskogee; Miss Sonya Wyatt, Occupational Therapist, Veterans Administration Hospital,

Muskogee, and Mr. Cary L. Hill, under whose guidance this study was made.

What is Occupational Therapy. Occupational therapy is the administration of treatment, prescribed by a physician in the form of supervised activity, for persons injured physically or mentally by accident or disease. Graduates of accredited schools are qualified to supervise the occupational therapy program, which may include the creative and manual arts, recreational activities, educational pursuits, pre-vocational training and the activities of daily living. The objective is to improve the patient's physical function and promote his mental, social and economic adjustment.

Review of Similar Studies. No similar studies were found in the Library of Oklahoma State University regarding occupational therapy. The purpose of the report will be to help those students of Industrial Arts in selecting a field of vocational and occupational therapy training.

## CHAPTER II

### HISTORY OF OCCUPATIONAL THERAPY AND INDUSTRIAL ARTS

Before making a study on any given subjects, it is necessary for a better understanding of those subjects to delve into the pages of time for the facts leading to the present-day way of life.

#### Part A

#### History of Occupational Therapy

Some have claimed that the Lord God sent Adam to till the earth, that Adam might recover from a depression caused by the change from an easy life he had been leading. It has been generally conceded that this was a passive form of treatment, not a therapeutic objective.

King Saul and David. Since the ancient times when David played his harp to soothe King Saul, occupational therapy has been used in practical ways to benefit mankind. From that day to this, men of vision have advanced the methods of occupational therapy. With the advent of modern medicine and psychiatry, occupational therapy has become a discipline which works for better personal social adjustments, and for restoration of the impaired parts with the physically disabled through

medically prescribed activity.

The Greeks. The Greeks used music, games, dancing and other diversions for the treatment of mental and physical disorders. Near A.D. 172, the famous Greek physician Galen said, "Employment is nature's best physician and essential to human happiness". Well over four thousand years earlier, man was advised to work so that he might enjoy the good that the earth could produce.

The Egyptian Priests. In 2000 B.C. a few Egyptian priests knew the effects of certain atmospheres, gardens, songs and dances in dispelling morbid moods. However, only the nobles were included in this cure and the common people were left to shift for themselves. (3, page 3)

Hippocrates. In 400 B.C. Hippocrates began experiments on the circulation of blood. He was one of the first medical doctors. Medical thoughts for many centuries, and even today, were influenced by his wisdom. The Oath of Hippocrates is still used today by doctors as their code of ethics. (19, Page 27)

The First Physician. Asclepiades, born over 100 years before Christ, was the first physician to recommend activity treatment for mental patients. Asclepiades is known as the Father of Occupational Therapy.

Alsus, who lived in Rome a century later than Asclepiades, did not believe that all patients should be kept in the dark.

He believed that mentally disturbed patients should be subjected to exercise to the point of fatigue. Alsus was one of the first to recommend a change of scenery and travel for disturbed patients. (19, page 28)

Caelius, a fifth century A.D. African, was very modern in his ideas as he recommended warm pleasant surroundings, reading and walks. Beating and tying a patient was taboo with him. He believed they should be kept normal in every way. Caelius was the first one to start drama as a therapeutic cure for patients. (19, page 27)

The First Mental Hospital. As far back as 1096, there were hospitals in Jerusalem, however, one of the first mental hospitals was established southeast of London, the Bedlam Hospital of St. Mary of Bethlehem. (19, page 27)

The Humanitarian Urge. The humanitarian urge in the first part of the eighteenth century brought about the interest in the common man and mental illness. Doctor Philippe Pinel gave background and impetus to the basic principles of occupational therapy as superintendent of an asylum in Bicetre Paris, France, in the later part of the 1700's. (5, page 6)

The Early 1700's. From the early 1700's occupational therapy has been on the increase in physical, as well as mental, hospitals. However, occupational therapy in this country began a fast decline when Doctor Kirkbride died in 1883. Toward the turn of the century other doctors began to give new

impetus to occupational therapy, until today it is as much of the treatment of a patient as medicine.

Mrs. Eleanor Clark Slagle. One of the important persons in occupational therapy was director of occupational therapy for the New York State Hygiene Commission from 1923 until her death in 1942. She also taught a three-months' course of occupational therapy in the Henry B. Faville School in 1915.  
(19, page 27)

First School of Occupational Therapy. The first school of occupational therapy was established in Chicago in 1915. The American Association of Occupational Therapists in cooperation with the American Medical Association fixed a standard of training and requirements for an occupational therapist. In 1936 the Association of Occupational Therapists was founded in this country. (6, page 5)

Objectives of Occupational Therapy. The objectives and activities of occupational therapy are as follows:

1. To develop and improve gross and fine functional movements of the upper extremities.
2. To increase speed, accuracy, and endurance of neuromuscular activities of the upper extremities.
3. To train patients in self-care activities involving principally the upper extremities.
4. To participate in certain phases of vocational training.
5. To develop power, co-ordination, endurance motor skills, and functional performance of the upper extremities and to achieve maximal functional recovery.
6. To train patients in the functional use of braces, splints, prostheses, and mechanical assistive devices.

The activities of the occupational therapy service, other than those immediately concerned with the development of maximal function of upper extremities, are: Periodic evaluation of self-care functions and other activities of daily living; conduction of tests for speed, accuracy, and work tolerance of designated activities; and participation with the vocational rehabilitation service in testing and training patients for specific vocational needs.

The goal to be reached by any patient must, of necessity, be established individually in terms of the diagnosis, physical handicaps, extent of disabilities, prognosis for recovery, as well as the interest, co-operation, and capabilities of the patient. In some cases the goal to be achieved may be that of sufficient recovery to enable the patient to undertake an active vocational training program, necessitating a change of occupation. These goals, of course, are established by the psychiatrist in charge of the patient's rehabilitation program. (11, page 31)

Occupational Therapy Program. In the occupational therapy program a two-fold objective is realized. From the psychological point of view, an opportunity is given to the resident to engage in creative and social outlets for energy and self-expression, and for people who are advanced in years and who may have developed feelings of uselessness, incapacity or a depreciated opinion of self-worth. The therapy program enables a rekindling of the spark of originality and of service. Through occupational therapy an opportunity is presented to do things for others, to create, to work with others on common projects. There is also an opportunity toward earning small amounts through the sale of the products of their labors.

An opportunity to bridge the gap between former skills and abilities is presented by such projects as baking, sewing,

painting, ceramics, etc. One of the primary concepts is to preserve, enhance, or develop individual feelings of self-worth, of the expression of the individual personality. Through the occupational therapy program, these factors can be best developed in an atmosphere of relaxed recreation and constructive endeavor.

A second important factor served by the occupational therapy program is the physical rehabilitation. Through this program, an opportunity to promote the restoration of function to injured or deteriorated parts through the use of interesting activities and exercise is presented. In certain cases of permanent disabilities, aids in self-care, training and use is aided by close liaison between occupational therapy, physical therapy and social works department.

The occupational therapy program is usually divided into two sections: the occupational shop program and the infirmary program. The shop program is designed for those patients who are able to attend the workshop, while the infirmary program brings the work to the bedside of those who are unable to leave their beds because of illness or disability.

The occupational therapy program is extremely important to the latter group because the bedridden patient is denied the usual satisfaction of the more able bodied. Some of the patients are permanently confined to their beds, and for them, even a small accomplishment assumes major proportions because of the limitations on their abilities. The morale value of this program becomes one of great importance.



The occupational therapy and physical therapy departments should work closely together and should be coordinated by staff discussions with the doctor. The occupational therapist also works closely with the social worker in evaluating the problems and needs of the individuals, and with the group worker in planning and conducting recreational activities. Occupational therapy has been, and will continue to be, of extreme value to physical and mental health of patients of any hospital or home.

It has taken its place with the other services and activities in the therapy field.

## Part B

### History of Industrial Arts

Barbaric People. Barbaric people learned manual arts through conscious imitation. When man learned to control fire, he passed into another stage of civilization. With fire he was able to cook his food, smelt metal and forge them into tools. With these tools he was able to make more tools and engage in more crafts. With these new developments came also a definite division of labor; some became carpenters, masons, miners and smiths. With this division of labor, came also new social groups. Guilds were formed of those pursuing the same craft, and sometimes a whole community became famous for its skill in a single craft.

But even under this circumstance, one must not think of education in crafts in terms of present methods of learning.

The Savage. The savage learns handwork by unconscious imitation. Davidson says "the savage divides his activities between work and worship. Through both he seeks the satisfaction of his desire".

The savage found by making weapons from stone that it was easier to protect and provide for his family.

Labor and Learning Before the Renaissance. Appreciation of the value of hand skill to the individual was recognized before Rousseau. Rousseau is said to have warned the young men of wealth in France by saying: "A revolution is approaching, and the man who has a good trade will be well taken care of". Skill is an insurance against poverty in time of recessions. The primitive man realized the need of the skilled worker, for he taught his sons or someone else's son all the crafts he knew. In early times even the royal families and princes were taught the handicrafts.

Maron's Treatise. Joseph Maron, hydrographer to the king and member of the Royal Society of London, was one of the first writers to make use of drawings to illustrate how to make tools.

The Russian System of Industrial Arts. It is clear that the Russian System of Workshop Instruction in the mechanic arts did not originate, as some have supposed, as a means of general education for students of secondary school grade. On the contrary, it grew out of a great need for a better

system of giving shop instruction as part of the technical education of students of college grade.

But the outstanding part concerning the system remains that it was the first to use scientific principles in analyzing the mechanic arts and basing courses of instruction on these analyses.

Home Sloyd System. In the Home Sloyd System the teaching was done at home in the early Germany crafts movement. The whole family sat around the fire at night and made the things that were needed around the home and on the farm. When a youngster ruined a piece of material, he was slapped. Thus, he was taught discipline, patriotism, art and skill in the home.

The Introduction of Machines. With the introduction of machines and labor-saving devices in the later part of the eighteenth century and the early part of the nineteenth century, the apprenticeship system of teaching began to deteriorate.

In the 1700's some progress was made in industrial education. A school of agriculture was established in South Carolina and was known as the DeLaHowe State School. A school for the handicapped and underprivileged children was established at Boston in 1814. It offered training in several vocational fields.

The Manual Training School. The manual training school

established in St. Louis in 1877 by Calvin M. Woodard added great impetus to the spread of these types of schools, and, within a few years, nearly all the major cities of the United States had established industrial schools.

Recent Developments in Industrial Arts. Several systems of training were tried; the Russian and the Sloyd systems were the most widely used, and, to some extent, they are still being used today.

There are, today, two separate areas of industrial education: industrial arts education and vocational industrial education.

The general shop program is gaining widespread impetus in the junior and senior high school, as well as in our colleges.

### Part C

#### Philosophy of Industrial Arts

Industrial Arts. Industrial arts, within itself, covers a very large field of industry and a way of life. The goal of every industrial arts teacher should be to impart to both boys and girls a better understanding of their modern industrial environment and the effect it has on their economic, social, moral and cultural life; to better educate them in their younger life so that a more logical decision can be made when the time comes for them to decide what road they will travel for the rest of their natural life.

Objectives of Industrial Arts. To help boys, girls, men and women make a sound decision, several objectives of industrial arts have been set up by men of high esteem in industrial arts circles. Some of the objectives are as follows:

1. Self-discovery by the pupil of his own abilities and aptitudes, leading toward maturing life interests.
2. Satisfying experience in self-expression through creative efforts leading to material accomplishments.
3. Understanding of industry and methods of production, and of the influence of industrial products and services upon the pattern of modern social and economic life.
4. Appreciation of good design and good workmanship in their application to construction and to manufactured products.
5. Judgment and resourcefulness in selection, purchase, use, and care of industrial products and services both in the home and in occupational life.
6. Ability to use tools and materials leading to household maintenance, leisure time pursuits, and, in some degree, to basic occupational skills.
7. Ability to read and make sketches and drawings used for illustrative and construction purposes, including the ability to read graphic and technical illustrations in books and magazines.
8. Development of maturing work habits, feeling of responsibility and ability to plan and execute work alone and in cooperation with others.
9. Basic experience in the use of tools, machines, and materials of value in carrying on future educational and professional work on scientific and technological levels.
10. Development of safety habits and fundamental safety consciousness not only in the school, but in the home and in future occupational life. (4, page 250)

Summation. As has been shown by this brief resume of the history of the development of industrial arts and occupational therapy, the progress of both have been nearly hand in hand. Its continued use in this manner depends upon a clear understanding of its value to the patient by all concerned.

## CHAPTER III

### RELATIONSHIP OF INDUSTRIAL ARTS

#### AND OCCUPATIONAL THERAPY

"Necessity" has been said to be the mother of invention. Physical medicine exponents drew on the broad field of industrial arts for a way to rehabilitate the physically and mentally ill in a way that would be more motivating and pleasant than physical exercise by itself. The broadening use of industrial arts in occupational therapy has brought about a closer relationship of the two fields.

#### Part A

#### Occupational Therapy

Occupational therapy uses all of the industrial arts and vocational activities in its broad field of rehabilitation of the mentally and physically handicapped. The occupational therapist should have a general knowledge of occupations as offered in most industrial arts departments. Along with this knowledge, he should have a thorough knowledge of the uses and limitation of all muscles and joints of the human body.

Doctor Edward Lowman. As Doctor Edward W. Lowman has so well stated:

The use of occupational activities for special remedial objectives is known as occupational therapy; the utilization of such activities thus provides productivity and interest and sustains participation by the patient in his therapy. The selection of the occupational activity depends upon the goal of treatment and the tolerance of the joint or joints. Further, the activity must conform with basic interests and aptitudes of the patient. (13, page 20)

The Breadth. The breadth of occupational activities is restricted only by the ingenuity of the therapist. Because of simplicity many activities have found common usage: clay molding, finger painting, weaving, jig-saw operation, sanding, pottery wheel operation, printing, reed work, etc. Finger painting, for example, is an excellent medium for obtaining wrist extension; operating a jig-saw increases muscle power and range of motion in both the hip and the knees; sanding is good for finger extension and mobilization of restricted elbows and shoulders. A minimum of equipment need be obtained for setting up adequate home programs, but in doing this it is advisable to utilize the experience and advice of an occupational therapist or a psychiatrist. When return to an occupation or its continuation is concerned, the occupational therapy should be correlated with vocational requirements, in that it either explores vocational possibilities or builds tolerance in the planned vocational activities.

The Restrictions. The restrictions on the amount of occupational therapy are the same as for any physical activity. The tolerance of joints, as evidenced by the fatigue



symptoms of pain, stiffness and soreness, is the guide to dosage.

Occupational therapy kept in gear with the overall physical medicine program will assist greatly in attaining the goal set for the treatment of deformed joints.

The Efficacy. The efficacy of physical agents applied both for diagnosis and treatment has been known for centuries and began to receive emphasis as physical and occupational therapy during and immediately after the first World War. The combined potentialities of light, electricity, heat, cold, massage, therapeutic exercise and other forms of occupational and physical therapy dramatically demonstrated their value in shortening periods of hospitalization, hastening recovery, preventing recurrence and forestalling or modifying life-long disabilities.

Must Learn New Trades. Parallel to these techniques was evolving the concept of vocational adjustment, referred to as rehabilitation. Persons recovering from injury or disease, frequently suffering residual handicaps, must often learn new trades or readjust themselves to old ones.

During the second World War, the needs of the time inevitably indicated that the more nearly the therapeutic program could be aimed at the ultimate occupational objective, the more efficient and economical the whole process would be. The unmistakable need for a trained medical specialist to stand in a dominant position of responsibility for the whole

process of physical medicine and rehabilitation brought a new specialty into being.

Doctor William J. Mayo. Doctor William J. Mayo made the prediction that, "Rehabilitation is to be the master word in medicine". This was in 1925 and few doctors agreed with him; however, today the field of rehabilitation ranks with the antibiotics in its ability to renovate the ever increasing "human scrap pile", and puts them back into the social and economic stream of life. We may be living in an atomic age, but, with all the safety education, devices and accident prevention, there are more and more people becoming disabled. It seems that the more done to repair wrecked human lives, the more repair there is to do. In the words of Bernard Baruch:

The picture of the growing amount of physical disability in this country from accidents and chronic disease is startling, but it need not be frightening. We have at our disposal the knowledge and methods of meeting the problem. The investment in rehabilitation is an investment in the greatest and most valuable of our possessions. (9, page 171)

It has been estimated that there are over 2,000,000 physically disabled who could benefit from rehabilitation and that 250,000 are added to this each year. Only a small per cent of these people will receive rehabilitation because of the lack of rehabilitation centers and trained personnel.

Occupational Therapy. It is most difficult to adopt psychiatric patients to a program of rehabilitation. Doctor Janice A. Mendelson has adequately stated a philosophy for

the treatment of psychiatric patients:

Occupational therapy may be diversional or prevocational in type. Diversional occupational therapy may be very simple at first, progressing from merely looking at things to a real accomplishment in the management of the extremely withdrawn patient to making a complete product; from working individually to working with others. It has four important contributions in the care of the psychiatric patient:

A. It increases and maintains the patient's interest in his environment.

B. By careful selection of activities and materials, specific psychiatric needs can be met. For instance, a repetitious quiet task with pale colored materials may be of help to relax a very tense patient. Working with bright colors helps combat lethargy. Ripping material or hammering helps relieve tension in acceptable ways.

C. Occupational therapy helps make the hospital stay more acceptable and enjoyable.

D. It may serve as an introduction to fundamental work habits, such as, planning, doing and completing a task. There is resulting pride of achievement, with an increased sense of personal value. Patients respond better when they realize their project is to serve some useful purpose, such as, making pillow cases for the ward or decorations for a hospital entertainment.

Prevocational activities are used for testing and training in specific skills which may be used as components of a trade.

For the sake of completeness, music therapy and art therapy will be mentioned at this time. Actually, each is a multi-phasic program able to help provide stimulation to the depressed patient and relaxation to the overly tense person, as well as aiding in social adjustment and including diversional and prevocational aspects.

As the patient's interest and abilities become known, he gradually progresses into real work situations with later transitions

to a sheltered workshop in the community and then actual employment. Most large mental hospitals have on their premises opportunities for many types of work. This would include assisting in the library, kitchens, laundry, farms, maintenance shops /electrical, carpentry, painting and plumbing/. The transition from living and working on the hospital grounds to employment and then residence elsewhere is difficult for the long-hospitalized patient. Sheltered workshops in the community, such as, the Goodwill Industries, help greatly in this respect.

In order to achieve successful vocational rehabilitation of psychiatric patients, proper testing and follow up is essential. Rennie estimated that 80 per cent of psychiatric clinic patients have vocational problems which are coincident with, or the result of, emotional problems. He estimated that in 1950 about 15 per cent of posthospitalized mental patients were in need of vocational rehabilitation services. In 1946 to 1948 about 95 per cent of these failed to obtain such services. (14, pages 30-33)

The Rehabilitation Workshop. In a rehabilitation workshop with prevocational facilities, Kalson of Pittsburg, worked with mental patients who had been severe employment problems and stated in 1953 that almost 30 per cent of those undergoing the full range of services had been successfully rehabilitated. They maintained a minimum of six months in regular employment or satisfactory performance in training.

White in England. White, in England, found 50 per cent satisfactory industrial rehabilitation of psychiatric patients in a one-year follow-up group. Woodwork of one kind or another seemed to be the occupation at which these psychiatric patients did best, with a higher proportion of successful placement after training in this trade than any other.

He observed that occupational prognosis is best with high former level of occupational skill and previous stability in employment. It was interesting to note that the incidence of previous mental hospital treatment was higher in the group of patients with satisfactory rehabilitation than those with unsatisfactory adjustment.

In the words of Doctor Lowman and Alexander Pope: The treatment of mental patients may be greatly improved if the course of their lives has been sufficiently guided.

"As the twig is bent, the tree's inclined". These words of Alexander Pope should be remembered always by every elementary school teacher. They should have significance for the teacher of physical education and health who is privileged to influence the physical growth and development of children, as well as their emotional and social adjustment.

Because of a combination of hereditary and environmental factors, as well as disease processes, our school population will always include pupils who must face life with varying degrees of physical impairment. The responsibility of the teacher is to assist in an all-out effort to minimize defects and help the handicapped child to live "within the limits of his disability, but to the hilt of his capabilities". To this end, close cooperation among physicians, medical auxiliary services, such as, physical and occupational therapy, and the physical education teacher is essential. (13, page 20)

## Part B

### Industrial Arts

Industrial arts has already won a place in both functional and convalescent workshops of occupational therapy

departments. In orthopedic, mental and general hospitals this activity is invaluable in the treatment of cases requiring exercise and restoration of physical functions, psychological adjustment and the development of work tolerance. In many general hospitals and rehabilitation centers industrial arts function both as occupational therapy and as diversional therapy as well. This aids materially in speeding the convalescence of patients.

Printing. The same thing can be said of printing. In psychiatric institutions printing has demonstrated its value in the hands of trained therapists. It has many therapeutic values and offers a variety of occupations, such as, news gathering, copy-typing, layout, typesetting, printing, folding, and distributing the copies.

Woodworking. Woodworking is one of the greatest aids in the rehabilitation of the mental patients and has been used longer than most any other type of rehabilitation for the retarded, as well as for the physically handicapped.

Doctor A. B. C. Knudson. According to Doctor Knudson, Director, Physical Medicine and Rehabilitation Service in the Veterans Administration:

If we are to seek one word to describe this comprehensive concept of treatment, it is the word "functional", that is, the aims and skills which make up the art and science of these therapies must serve some useful purpose. (9, page 172)

For example, in manual arts therapy a patient who had

formerly been a machinist in industry would not be asked to weave a basket, but he would be prescribed to machine shop activities where his capacities for work could be evaluated and a determination made as to when he would be ready to return to his former occupation or a potential vocation as a manual arts therapist.

#### Manual Arts Therapy.

Manual Arts Therapy is one of the newer therapy specialties in Physical Medicine and Rehabilitation offering a challenging career to Industrial Arts or Industrial Education graduates and instructors. The Manual Arts Therapist uses his professional training and skills in directing patients in medically prescribed activities of a vocational nature found in such broad fields of industry as metalworking, woodworking, electricity, graphic and applied arts, and agriculture. He observes patients in actual and simulated work situations, and presents progress reports of treatment reactions to the prescribing physician which contribute to establishment of the patient's medical rehabilitation goal for his ultimate return to industry. (18, page 5)

Case Histories. Muscular Dystrophy: it is difficult to determine which treatment is most effective in the case of muscular dystrophy. Massage, whirlpool and activity exercises are used most frequently. Occupational therapy is the most frequent activity assigned. Any improvement would be slow and considered great encouragement. Out of five cases studied, three cases showed slight improvement; one case showed good improvement; and one case showed very good improvement. (15, Page 16)

After a major operation, Joe Smith's wound had healed sufficiently for him to go home. His hospitalization, which

had been a long one, was spent chiefly in reading pulp magazines. Beginning his months of convalescence with nothing to do, he ended it that way, finding finally that for physical reasons he could not return to his former job. Worse still, not even the first step had been taken toward learning a new one.

There was a time when all this, however regrettable it might be, had nothing to do with either the medical profession or the hospital. This is no longer true. Regardless of the discouraging frequency with which cases like that of Joe Smith recur, the responsibility of the hospital and the medical profession is now clear cut. (12, page 67)

The Belief of the Writer. It is the belief of the writer that greater use of the power tools of industrial arts in the application of occupational therapy treatment would add impetus to the occupational therapy field, as well as give better service to the patient. We are in the electronic age and should not fall behind in our rehabilitation programs by staying with the hand method of doing something, unless a power tool cannot be substituted for a given case. The more training an occupational therapist can get in industrial arts the better qualified he will be to take care of any given patient and insure the continued advancement of occupational therapy and industrial arts for the benefit of mankind.



## CHAPTER IV

### A RESUME

In retrogressing through the pages of time concerning industrial arts and occupational therapy, it is found that it has been the objectives of both fields to give a better understanding to a way of life; to assist one another in every way possible; to help self-discovery by the pupil and patient of his own abilities and aptitudes leading toward a mature and more useful life interest and to motivate the listless and challenge the intelligent.

The end results of both fields are contentment and independence, physically, mentally, financially and socially.

Summary. This study has shown that people have used industrial arts and occupational therapy in one form or another in the preservation, rehabilitation and independence of a way of life.

These two programs working hand in hand will give better use of leisure time, sounder bodies and minds, more productivity and better contentment leading to a more stabilized economy, which, in turn, leads to a higher standard of living.

Recommendations. The writer of this report could make no more meaningful recommendation than that found in a statement by Mr. Edgar E. Best in an address at the American

Industrial Arts Association, Milwaukee, Wisconsin, April 25,  
1956:

In conclusion, I would like to say that to help alleviate the present rehabilitation problems, it is up to each of us to do all we can to acquaint the public with the growing need for an expansion of rehabilitation facilities and especially for the need to provide college curricula for training personnel to staff these facilities. Without personnel trained in rehabilitation techniques the constantly increasing number of handicapped among us cannot hope to "Find the Road Back". (9, page 175)

APPENDIX  
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