

SHORT COURSES IN INDUSTRIAL ARTS
FOR THEIR HOBBY VALUE

by

JESSE WAYNE KING

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APPROVED:




Professor of Educational Psychology

In Charge of Major



Dean of School of Education and Chairman
of School Graduate Committee



Dean of Graduate School

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Typed by Bertha A. King

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SHORT COURSES IN INDUSTRIAL ARTS FOR THEIR HOBBY VALUE

CHAPTER I

INTRODUCTION

Because happiness is so personal, there is only one place for man to begin his search for it; and that is within himself. Carrel (27, p.2) expressed it in this way:

We know that neither prosperity nor war will solve the problems of modern society; gradually we are realizing that the only answer lies in man himself. To progress, man must remake himself...For he is both the marble and the sculptor. In order to uncover his true visage, he must mould his own substance.

A wealth of leisure has come upon our civilization so suddenly that it is a challenge to our social and educational systems as well as to the individual. Paack (20, p.233) has written, "Many new products come and go, but one product alone continues to appear in ever-increasing quantities and is destined to alter the course of mankind. That product is leisure." An industrial society has made available the product, leisure; but the way in which it is spent determines its value to both society and the individual. This may be a constructive set of values, or a destructive waste of time, money, and of the people themselves.

Dewey (22, p.11) wrote:

The ability to produce and enjoy the arts, capacity for recreation, and the significant utilization of leisure, are more important elements than those conventionally associated with education for citizenship.

Butler (15, p.11) wrote:

It will be more important one of these days to educate men and women in the use of leisure than to educate them in occupations.

Curtis (11, p.282) made a comparison of the amount of leisure time available today with that of a few years ago:

The widespread use of power and mechanization reduced our working day in industry down from twelve hours to eight and our work-week from six days to five. This gives us 40 hours of work, 56 hours of sleep and leaves 72 hours for dressing, meals and leisure, with the probability of at least 40 or 50 hours in the clear.

The attitude toward leisure has changed in recent years from the philosophy carried over from colonial times that leisure was morally wrong or anti-social (4, p.17). Hackbarth (15, p.36) has stated: "It is, indeed, difficult to realize that only a generation ago leisure time activities were much less emphasized and in many cases frowned upon as a waste of time and energy."

This by-product of industrial mass-production can be both a blessing and a curse according to the uses to which it is put. Some of the problems which leisure has produced were recognized by Brown (4, p.23) in the following:

The wide and continued application of mechanization to the processes of production and manufacture, transportation and communication has given modern society the greatest measure of success in the age-old quest for leisure-time that has as yet been attained. But all is not well. Growing out of or directly related to the widespread misuse or failure to use this leisure-time, rise a number of difficulties of serious proportions. Included among them are crime, delinquency, and illnesses such as neuroses, psychoses, stomach ulcers, heart trouble, and insanity.

Boswell (3, p.20) has written:

When working and with money to spend, spare time was a source of joy, but once thrown upon our own resources for entertainment and life satisfactions, many of us have been found wanting. Lack of skill, together with lack of interests in satisfying activities, has caused almost as much misery as lack of food, clothing and shelter.

The value of leisure depends upon what individuals and groups do with it. If long-time, constructive happiness is the goal of mankind, the aggressive pursuit of hobbies as studied in this thesis may help in solving some of the life-problems of the satisfactory use of leisure-time--for a few or many people.

Purpose of the Study

This study was undertaken in order to study the contributions that the industrial arts courses as taught at the Northern Montana College might make toward education for the use of leisure-time through the development of hobbies. The specific objectives of this study were:

(a) to determine, as far as possible, the hobby values of industrial arts courses; (b) to determine the values of hobbies; (c) to determine the hobbies needed or desired by adults; (d) to determine the need for leisure-time education by certain adults; and (e) to determine the attitudes of four selected groups toward leisure-time education.

Procedures Used in the Study

In conducting this study, information was secured from the United States Office of Education, from university libraries, by questionnaires from four selected groups at the Northern Montana College, and by personal interviews with members of the adult extension class at the Northern Montana College.

Bulletins and pamphlets pertaining to research studies, adult education, industrial arts, and evening schools were secured from the United States Office of Education. Theses relative to the study were secured from other college libraries via the inter-library loan system. A college faculty, an adult extension class in arts and crafts, resident students, and students with an industrial arts major were the four groups surveyed by means of questionnaires. A somewhat different questionnaire was designed for each group.

Limitations of the Study

The study was limited by the following factors:

- (a) the local nature of the original work of the study;
- (b) the restriction to the adult level of education; and
- (c) the lack of previous studies on this problem.

Importance of the Study

In the community in which this study was made, there is a trend toward the community college philosophy. The principle that the state schools exist primarily for the good of society is being more clearly recognized there than is usual. The assumption is being accepted that, to the degree that every individual is helped by the schools to improve his or her personal resources--whether for occupational efficiency, for intellectual development, or for recreation--to that extent is society being benefited. More educational opportunities available to adults in their free time are being offered in Montana in comparison with some of the other states, and these render valuable services to the community as well as to the individual.

There is a need for a planned program of leisure-time education at Northern Montana College, especially during the winter months. Many farmers and other workers seek courses of study during this time of year as they

cannot work or play outside. They are looking for things which they can do to use their leisure-time advantageously. This leisure-time surplus is the product of the technological advances made in farming methods, and the mass-production of mechanical equipment. Efficiency of production has been increased, and hours of labor have been reduced. Many people in the community who pursue outdoor hobbies such as gardening, golf, hunting, fishing, and swimming during the more clement months, seek inside hobbies for the use of their leisure-time during the winter months. The development and pursuit of hobbies through courses in an industrial arts department would provide an educational opportunity for these people which is in keeping with the community college philosophy.

Last year (1950) was the first time that the industrial arts department at the Northern Montana College was used to promote the development of leisure-time education through hobbies. This study should be of some value in this local situation in planning future courses, and may be used in similar communities.

The increase of leisure-time has altered the course of mankind, but whether it is a blessing or a curse will depend, to a large extent, upon what teachers do toward the education of students for its use. While this thesis was concerned primarily with the contributions of the industrial arts department at the Northern Montana College

toward leisure-time education for adults, the problem is not limited to a particular field of study, to a specific geographical area, nor to a definite age level, but is universal in scope.

CHAPTER II

GENERAL BACKGROUND OF THE STUDY

Industrial Arts at Northern Montana College

The industrial arts department at the Northern Montana College was originally set up to provide training for three principal groups of students: (a) those planning to become industrial arts teachers; (b) engineering students who needed practical shop experience, and (c) special students who were taking a terminal program not leading to a degree.

The first two groups are classified by the college as "regular students." These students are working toward degrees, and have definite curricula to follow. The third group is composed of students over twenty-one years of age who are not working on degree programs. They are admitted to the college without the usual examination or unit requirements, and are classified as "special students." Their programs are worked out on individual bases, and depend upon the previous backgrounds and occupational objectives of the students.

In this group of special students may be found students who have taken selected industrial arts courses for the specific purpose of developing hobbies. Each winter quarter, in addition, there are also about forty or fifty

farmers who are interested in learning specific skills useful to them on their farms or who are desirous of developing avocational pursuits or hobbies.

Last year (1950) was the first time that the industrial arts department provided training for a fourth group of students--an adult extension class in arts and crafts. This class was organized under the Extension Service that is offered by the Northern Montana College.

Industrial Arts and Education

The values of hand-skills to the individual date back beyond recorded history. A realization of the fact that skill of hand is an advantage to the possessor goes back to the time when primitive man taught his son all the crafts which he knew. This education was a necessary factor in survival.

When man gained power to control fire, he passed into another stage of civilization. With this new development, came division of labor and specialization. Some men became carpenters, some miners, others smiths, weavers, and so on. New social groups were formed because common experiences in work drew men together and, consequently, groups and guilds were formed by those pursuing the same craft. Apprenticeship in the crafts became the principal means of education (1, pp.11-12).

The Jews have always emphasized the social values of handwork. In the Talmud (1, p.13), the book of traditional law of the Jews, the following may be found:

As it is your duty to teach your son the law, teach him a trade...Disobedience to this ordinance exposes one to just contempt, for thereby the social conditions of all are endangered...He who does not have his son taught a trade prepares him to be a robber...He who applies himself to study alone is like him who has no God.

Handicraft among the ancient Greeks, at first, held a place of respect by all but, in later times, was regarded as a set of merely mechanical operations for the poorer classes to perform. Apprenticeship among the lower classes was the chief method of trade instruction (1, p.15).

St. Benedict (480-543) and others made manual labor a cardinal principle of religion. Many useful arts were developed within the monasteries. The Benedictines developed the arts of book-making, penmanship, the building trades, farming and gardening, and minor crafts (1, pp.17-18).

The philosophy of industrial arts education can be found in the writings of many men. Luther (1483-1546), in Germany, advocated two hours of school a day and the rest of the day devoted to trade training. Rabelais (1483-1553), in France, approached knowledge through the use of objects. He wrote two novels--Gargantua and Pantagruel--in which he expressed his ideas on education.

Francis Bacon (1561-1626) used the term "Manual Arts" in his first book, published in 1605. Comenius (1592-1670) advocated teaching according to the order of nature. He believed that instruction should be agreeable to the learner (1, pp.31-36), and should be useful.

Locke (1632-1704) became the chief exponent of education for practical life in his time and is still of extensive influence. He believed that the learning of a manual trade provided good exercise, some skill, and excellent recreation. Rousseau (1712-1778) believed that nature, men, and circumstances were the chief sources of education. He also believed that experience was the best teacher, and that education should provide many experiences. Pestalozzi (1746-1827) has been called the "father of manual training." He put his theories of handwork to test in the various schools that he conducted. He tried to organize his instruction in harmony with the instincts, capacities, and powers of the individual (1, pp.60-123).

Due to the industrial revolution in Europe, which began during the latter part of the eighteenth century, there was a general need for more mechanical and scientific knowledge on the parts of all potential workers. Under philanthropic leaders, such as Fellenberg, Owen, Birkbeck, and others, industrial schools were developed. The idea of manipulative work was introduced not only for its economic usefulness, but for its educational value as well.

The competitive race for industrial and scientific supremacy in France and England during the nineteenth century caused these countries to establish many technical schools. As other countries gradually became aware of the general public need for technical information and training, they introduced such work as a part of general education (23, p.12).

In 1868 Victor Della Vos, director of the Imperial Technical School at Moscow, instituted in his school a formal course of study in the mechanical arts for vocational purposes. A scientific analysis of the processes of mechanics preceded the organization of the Russian courses. There were separate shops in his school for the various trades. There were tools for the general use of all students in the class as well as individual sets of tools. Courses were organized which proceeded from the simple to the complex. Each project was constructed from drawings made by the students in the drawing classes. One model had to be finished before another was begun. The degree of accuracy required increased as a student progressed. The course of study, outlined in models, was displayed on boards hung in each shop. Charts, illustrative materials, tools, and shop rules were also displayed. Class instruction, supplemented by individual help to prevent the formation of bad working habits, was the method used in the beginning

of the instruction. Independence was striven for at the end of the course.

The work of the Russian system of tool instruction was shown at the Philadelphia Centennial Exposition in 1876 (10, p.770). As a result of this exhibit, an immediate interest developed in the Della Vos method of instruction in the United States. Leading educators, such as Dr. John Runkle of the Massachusetts Institute of Technology in Boston and Dr. Calvin Woodward of Washington University in St. Louis, introduced manual training into their schools (2, pp.13-51).

Uno Cygnaeus (1810-1888), of Finland, developed a system of manual training known as sloyd. He was well acquainted with the writings of Pestalozzi and Froebel, and tried to include their best ideas and principles in his system. The sloyd schools emphasized the use of wood for producing useful and salable articles. The reasons for emphasizing the use of wood were: (a) this material was easily available, (b) many articles which were made of wood were useful in the homes and were valuable in increasing the family incomes, (c) woodworking was clean work, and (d) the processes and materials (various kinds of wood) were sufficiently varied to permit the use of a variety of tools and many forms of construction, thus, providing superior educational possibilities.

In 1872 Otto Salomon, in Sweden, established a sloyd school at Naas which, in a few years, became the most outstanding school of its kind. In 1874, Salomon opened a class to train teachers in sloyd work. Many foreign teachers received training there. These teachers, trained at Naas, influenced the spread of this type of education into many of the countries of Europe and in the Americas. Salomon tried to organize the teaching of sloyd by the same educational principles as had been accepted in teaching other subjects or by improved methods. The course of study progressed from simple to complex projects; there was much analysis of the steps in each activity; and the unknown was tied to the known (2, pp.56-67). In 1888, sloyd education was introduced into the United States by Gustaf Larrson who gave instruction to public school teachers at Boston (2, p.472).

"Industrial Arts" in America has passed through two somewhat well-defined periods of professional growth and is now in the midst of a third. The first was named "manual training" by Runkle in 1877 (24, p.28). The emphasis was on hand-skills, chiefly in woodworking exercises, which were patterned after the Russian plan. Due to the emphasis on exercises for the development of skill rather than the production of useful articles, this type of training declined in popularity.

The second period of development was named "manual arts" by Bennett in 1894. While the emphasis was still on skill, the philosophy was extended to include the making of both useful and well-designed articles, still principally by hand. The methods of instruction in sloyd work from Sweden by Larrson had an influence on this development (24, pp.28-29).

The growth of American industry brought about a third period which was referred to as "industrial arts" by Richards in 1904 (2, p.453). This change in nomenclature was also due to a change in the philosophies of the industrial arts leaders. This new philosophy emphasized the general educational value of industrial arts rather than its vocational aspects.

Industrial arts today are taught not only for purposes of exploration, guidance, and appreciation by regular students; but also for recreational, social, and health purposes for older people who return to school to take advantage of adult extension classes (7, pp.11-14). Such activities are frequently helpful to many people who suffer from jangled nerves or high pressure activities. Many men and women who work at monotonous jobs find suitable outlets for creative expression through the industrial arts programs. The flexibility of the materials used in these classes allows each individual to develop his own ideas and to express them through

actual objects made.

Hobbies and Education

Hobbies are as old as history. In all ages, men and women have pursued their natural interests during their spare time. It is only in recent times that the common man has had an abundance of leisure-time to spend. No matter what a person's age, position, or income, satisfying hobbies may now be enjoyed by all.

Sir William Osler (26, p.3441) once expressed his faith in the value of hobbies in these words:

No man is really happy or safe without a hobby and it makes precious little difference what the outside interest may be...anything will do so long as he straddles a hobby and rides it hard.

In Calkins' book (5, p.vii) on Care and Feeding of Hobby Horses, one finds the following statement:

The average working person has some two thousand hours yearly to spend to suit his pocketbook, his personal taste and his imagination.

People take up hobbies because they bring happiness, friendship, knowledge, and relaxation. They can also bring mental and physical health and, sometimes, wealth. The relaxation which hobbies bring makes life easier, and provides a balance between work and play.

Evidence of the truth of the above is borne out by the following statements:

Hobbies (15, p.9) have been termed safety valves. For man is a skill-hungry creature, he must express himself in activity. He must do, make, or achieve in order to get fulfillment and satisfaction.

They (18, p.252) offer us not only a means of transitory enjoyment but also the initial steps to a more sympathetic appreciation of the arts and sciences, and of life as a whole. The hobby gives us something in common with people who otherwise might never become our friends or acquaintances because of the barriers of circumstances, occupational, physical handicaps or geographical locations.

To have a hobby (18, pp.2-3) that you can ride with intensive interest and inflated enthusiasm has many things to commend it besides those which we consider the primary by-products of it, namely, pleasure, enjoyment and gratification. Among the secondary values are that it clears away the cobwebs of your brain spun by the routine work you are doing, which is your vocation and by which you live; this in turn relieves to a large extent the strain on your nervous system, with the result that this greatly helps to keep you physically fit.

Every person (7, p.255) who has a hobby is looking to obtain peace of mind through it. In other words, he is seeking for happiness.

There are many different hobbies. Some are old, and others are new. There are hobbies for indoors and for outdoors. Some require only mental effort; others require physical strength and endurance. Some have little seeming purpose, while others add greatly to the knowledge of those who practice them. Most hobbies are inexpensive,

but others may require large financial expenditures. Some hobbies are solitary; others may bring the hobbyist valuable friendships. Hobbies can be classified into four general types: (a) doing things; (b) collecting things; (c) making things; and (d) learning things.

Another classification of hobbies was suggested by Chambers (7, p.255) who divided them into two separate classes. The first was "escape" and the second "creative." Taussig and Meyer (25, p.3) suggested three types of hobbies: acquiring knowledge, acquiring things, and creating things.

A person choosing a hobby should consider several factors before making up his mind. No hard and fast rules, however, should be followed. It is a matter of individual taste, and no one should do more than suggest what another person should choose.

Robinson (18, p.252) wrote:

Because of my belief that sources of happiness are numerous and easily accessible, I advocate the successive riding of many hobbies.

Brown (4, pp.30-31), in his master's thesis, made the following statement:

The listing of the specific characteristics or definitions of an ideal hobby ranks among the impossible tasks because individual differences among people are so great. An activity rated perfect by one person might prove to be mere boredom for another. However,

there are many criteria which are worthy of consideration and are apt to yield the most valuable return when applied.

Collins (8, p.5) listed the following criteria for examining a possible hobby choice:

There are at least five prime conditions that a hobby must satisfy if you are to ride it to a successful finish: it must (1) strongly appeal to you, (2) be suited to your age, (3) fit in with the time you can give it, (4) be adaptable to your ability, and (5) line up with your pocketbook.

It is the opinion of the writer that the hobby could easily be adapted as a vehicle of learning in many of our academic and laboratory classes. Some courses of study needing new motivational emphases could be revitalized by this type of approach. The cardinal principle, "worthy use of leisure-time," which was published in 1918 by the Commission on the Reorganization of Secondary Education (9, pp.10-15) has long been neglected by many of our "subject-conscious" teachers.

Hackbarth (15, p.37) found in her study that there was a need for helping students to develop hobbies. The majority who were engaging in hobbies had acquired them before coming to college, and were developing no new interests. One of the criticisms of the hobby activities developed by students during their school years is the fact that they so often do not carry over into later adult life. They are often hobbies developed by

school activities of a physical nature that cannot be carried on in later years because of the limitations brought on by increasing age. Hobby interests, therefore, should be developed which can be pursued into the retirement years.

Rule (23, p.82) made the following suggestion:

Handicraft hobbies provide leisure occupations that may be carried on from childhood throughout life. A frequent criticism of hobbies, especially those of a strenuously physical nature is that however appropriate they may be for youth they offer little for maturity and old age. Among constructive and manipulative hobbies are many that appeal to persons of all ages.

Almost all hobbies require some knowledge and a little study. Some people make an entire hobby out of studying some particular subject. It may be languages, art, electricity, or architecture. Whatever it is, the hobbyist will almost certainly find that his study has been worthwhile in some way, and may be profitable.

Many persons (26, p.3446) who have started hobbies entirely for pleasure have gone on with them to receive fame and fortune. Other hobbyists have made important contributions to science and knowledge. Many of the world's most important discoveries came from hobbies.

Some people take up such study-hobbies only as changes from their everyday routines. Others take up study-hobbies in the hope that they may in the end be able to break into a new field of work.

Chambers (6, p.178) stated:

The hobby plan is the best and nearest method of promoting guidance toward a vocation. The next best plan is actual experience on the job.

Many famous people of the past and the present have pursued hobbies which provided them with outlets for their creative energies. There was George Washington who bred fine horses and foxhounds. Benjamin Franklin studied science. Daniel Boone's hobbies were hunting, exploring, and woodcraft. Abraham Lincoln gave his spare time to reading and the telling of humorous stories. Theodore Roosevelt's was hunting. Two of the world's greatest stamp collections were the properties of King George V of England and the late president, Franklin D. Roosevelt. William O. Douglas, supreme court justice, collects botanical specimens from Oregon and Washington. Edgar Bergen, of radio fame, is a woodworker; and Vannevar Bush, atomic scientist, raises turkeys, plays the flute, dabbles in photography and, most important of all in the opinion of this writer, owns a basement workshop.

Our current periodicals bring us interesting sidelights on the hobbies of well known people nearly every day. It is no accident that so many of the outstanding persons of the world are hobbyists.

Leisure and Education

Education and leisure have always enjoyed an intimate relationship. Leisure has long been a prerequisite for formal education. Not only has leisure contributed to education, but education of the past has been directed toward the needs of the leisure class that their hours might be profitably and pleasantly employed. Education in art, in the classics, and in philosophy has been given largely for purposes of cultural training and refinement.

Douglass (12, p.94) stated this in the following words:

The arts and sciences are the product of leisure. As a nation accumulates wealth and becomes able to support at least a part of its population in comparative security, intellectual life tends to flourish; conversely, when the problem of making a living engages the energies of all, adequate time cannot be given to the development of the finer things of life, and the arts, science, and literature languish. Here is a basic relationship between everyday work, which goes to produce wealth, and what might be called "culture."

Education for leisure, in a large measure, means the enjoyment of leisure. Leisure does not mean idleness or time spent in spending money out of proportion to the values received. To develop the proper perspective toward the value of leisure-time, hobbies and other worthwhile activities should be encouraged by all teachers. The worthy use of leisure-time can be taught only through active participation.

Ericson (13, p.101) made this recommendation:

If our youth are to know how to use their leisure time as workers in the future, obviously they should not only be told how to use such leisure when it comes, but should be given leisure time now and practice in using it.

Since nearly all future citizens must pass through the schools, the schools would seem the logical places to educate them for the worthy use of leisure-time. Teachers are, as a rule, better equipped to teach than are other persons. The school trains students in the basic subjects, in vocational fields, and often attempts to give them an understanding of sociology, economics, art, and science. Since such a great portion of students' later lives can be classified as leisure-time, it would seem to be an injustice if the school does not also prepare them for the use and enjoyment of this time which might otherwise be unoccupied.

Gamett (14, p.11) made this statement:

An examination of preparatory centers (high school, college or vocational school) reveals that little attention is given there to worthy use of leisure time. Extra curricular activities are generally the only means of training for an absorption of unproductive time.

Jacks (17, p.102) in his book, Education Through Recreation, had the following to say:

The reason so many people are at a loss with what to do with themselves in their leisure time, and make a stupid use of it in

consequence, is that their creative facilities were never awakened when they were young.

Pack (20, pp.215-216) pointed out a weakness in public education in the following statement:

Education such as that provided by the majority of our public schools and extended into many of our universities, fails to open the doors of the mind on anything approximating a broad scale. Rather it has tended to restrict and disregard everything that does not lead toward some definite end, an end usually connected with earning a livelihood or with the maintenance of purely artificial social standards. Education has been too much preoccupied with the problem of how to make a living, and not enough with the far more important problem of how life should be lived.

The schools need to incorporate specific procedures in their guidance and educational programs to develop well-balanced individuals who can evaluate, select, and participate in leisure activities intelligently.

Jacks (17, p.102) made this suggestion:

Every country ought to have its own college of Recreational Culture--you might call it a school of leisure-craft like the one they have had for many years in Sweden, where young men and women of good ability can get themselves thoroughly trained and go out as recreational educators into every school, college and civic community in the land.

The outcome of the profound social and economic changes through which we are passing cannot yet be seen clearly. National leaders appear to be agreed that hours of labor have been reduced permanently and may be reduced

still more; whereas the hours of leisure or at least the hours which are more or less under the control of the individual will probably be increased still more (16, p.36).

Studebaker (19, p.177) stated the following to the National Congress of Parents and Teachers:

The shortening of hours made possible by improved technology creates a leisure which calls for adult education. The need for leisure-time pursuits cannot be met by dealing merely with young people in formal schools. The need arises among today's adults and older people to whom the shortening of hours represents something new in their experience.

Many of the homes of today provide facilities for use of leisure-time. Rumpus rooms, dens, photographic darkrooms, basement shops, and other special facilities are specifically designed for leisure-time activities. A great amount of time is spent by many people in the home, and the condition of the home will influence their use of leisure-time.

Partridge and Mooney (21, p.380) added to the above statement:

Thanks to those who are designing and building new homes, there are many more chances for recreation and leisure-time activities than there were in the houses of other days. Most of the newer houses are built with recreation in mind.

While the "worthy use of leisure-time" has long been recognized as a cardinal principle of education, it is

only in recent times that the common man has had an abundance of leisure-time to spend. The importance of this aspect of education has long been neglected by many of our teachers.

Many people of northern Montana want appropriate educational opportunities for the use of their leisure-time. They are seeking preparation for the mature and less active years of their lives. The Northern Montana College, through its industrial arts department, has extended an educational opportunity to these adults. The philosophy behind this program is the development of avocational interests with good public relations a desirable outcome.

CHAPTER III

THE STUDY

This study is primarily concerned with the role of the industrial arts department in the promotion of hobby and other avocational interests. The writer has attempted to determine, as far as possible, the hobby values of industrial arts courses, the need for leisure-time education of adults, the hobbies desired by adults, and the attitudes of four selected groups of people toward leisure-time education. One of the significances of this study is the fact that a relatively small amount of research has been concerned with the promotion of hobbies and other avocational interests in the industrial arts courses.

The methods used in securing information for this study were the questionnaire, correspondence, and personal interviews. Four different groups of people were selected for this study in order to gain a broad point-of-view for the study. The groups selected were: the college faculty at the Northern Montana College, the industrial arts majors at the Northern Montana College, the resident students other than the industrial arts majors at the Northern Montana College, and the first adult extension class in the industrial arts department offered by the

Northern Montana College.

A total of 138 questionnaires (Appendixes B, C, D, and E) were used in this study. There were nineteen participants in the faculty group, twenty-four in the industrial arts group, seventy-four in the resident students' (other than industrial arts) group, and twenty-one in the extension group.

Seven of the questionnaires (Appendix E) given to the adults in the extension group were completed and supplemented in personal interviews. This helped in the evaluation of the questionnaire. Twenty-four of these questionnaires with letters of transmittal (Appendix A) were sent to the remainder of the adult extension group. Fourteen of these were completed and returned. This is the only group in which information was secured by personal interviews and correspondence.

Results from the Questionnaire Given to the Northern Montana College Faculty

Twenty-three faculty members of the Northern Montana college were asked to complete a questionnaire (Appendix B) in order to secure their judgments, as educators, on the following problems: (a) the values of hobbies; (b) the possibilities of emphasizing leisure-time education in college courses; (c) the courses in their

respective fields best suited to the development of hobbies; and (d) their possible interest in taking industrial arts courses for avocational purposes and the courses which they desired to take, if they wished to take any. Nineteen questionnaires were completed and returned. This is eighty-three per cent of the total distributed to this group.

The fields of study represented by the members who returned the questionnaires were: English, chemistry, industrial arts, physics, psychology, biological science, sociology, foreign languages, mathematics, business administration, art, music, secretarial science, education, library science, and physical education.

The first item in the questionnaire to the members of the college staff was: Do you believe that we should have some college courses with "education for leisure" as the predominant objective? Eighteen of the faculty answered this question in the affirmative; one in the negative. The reason given for the negative answer was:

I believe that there is much which most courses already set up can contribute to wise use of leisure time. This should be a part of many courses which have vocational or personal growth as their major aim.

Some of the reasons given for the affirmative answers were:

Because one should have a wholesome means of filling his leisure time especially since

today's modern economic system provides a shorter work day and more leisure time. However, most courses do provide for education for leisure in a measure as even very solid reading is used by some persons as a means of filling leisure time.

Lack of interest in or knowledge of suitable leisure time activities leads often to pursuits of unproductive pleasures which are usually expensive and often outside the home.

People have more leisure now than a few years ago and will have still more in the future. I think it very important that we know how best to spend such time.

Education is for complete living, therefore, how leisure time is used is extremely important.

Education for leisure can be very broadening, useful, and satisfying.

It is concluded from the above quotations that training in the wise use of leisure-time should not be left to chance, but should be developed. Each course of study should provide some elements of leisure-time education but, obviously, the subject-matter and the skills should not be neglected.

The second item in this questionnaire was: Which courses in college might serve best as bases for the development of hobbies? Twenty-eight different courses were listed in response to this item. The reasons given for suggesting these courses were:

The learning of how to do something ought to be the basis of many hobbies.

Can be applied to activities which can be carried on in the home.

Can be used after the age of twenty-five.

Practical and unrelated to professional curricula.

These furnish enduring materials and there is no limit to one's advancement.

These seem to represent the major interests of our students.

Such courses provide a source for hobbies and also help in better living.

Because people interested in these subjects like to build things.

For some, reading would be the major hobby--no particular courses would be significant over others.

We think of a hobby as a means of using leisure-time in a worthwhile way and perhaps affording more or less activity.

The enrichment of life by the proper use of leisure-time is the essence of most of these quotations. The industrial arts field appeared to be the one best suited to the development of hobby interests in the minds of this group. For convenience, the twenty-eight different courses were grouped into eight classifications. The classifications are listed in TABLE I in order of their precedence.

TABLE I
College Fields of Study
Suggested for Hobby Development

Field of Study	Frequency Suggested	Per Cent of Total
1. Industrial arts	22	30.5
2. Science	11	15.3
3. Art	10	13.9
4. English	9	12.5
5. Music	9	12.5
6. Physical education	5	6.9
7. Sociology	4	5.6
8. Home economics	2	2.8
Total	<u>72</u>	<u>100.0</u>

The third item in this questionnaire was: Do you believe that hobbies are valuable? All participants (nineteen out of nineteen) answered this question in the affirmative. This would leave little doubt, if any, as to the recognition of the values of hobbies by educators.

The fourth item was: What are the values of hobbies? As a basis for their affirmative answer to Item Three, these staff members gave ample evidence for their support of this belief. A few of the many values given were:

Relaxation; constructive use of leisure time; sources of self-satisfaction; can be developed as an avocation to form a potential source of added income.

A refreshed approach to one's job; broadening of viewpoints.

Relaxation from the pressures of modern living.

Many hobbies can be very educational.

They allow one to develop creative ability and use one's own initiative.

Serve as a balance so that one's vocation and life itself does not become humdrum.

Makes life more interesting to ourselves and others and sometimes leads to a good job.

Diversion of mental fixation on immediate problems.

Relaxation combined with physical or mental improvement.

Entertainment; topics of conversation; monetary aid; growth and development of individuals; wise use of leisure time.

The hobby values given by the Northern Montana College faculty are presented in TABLE II. These are listed in order of preference.

TABLE II

Hobby Values Given by the College Faculty

Hobby Values	Frequency Given	Per Cent of Total
1. Constructive use of leisure	12	21.5
2. Relaxation	6	10.7
3. Education	5	9.1
4. Potential source of income	5	9.1
5. Psychological	5	9.1
6. Recreation	4	7.2
7. Sources of self-satisfaction	4	7.2
8. Entertainment	3	5.3
9. Health	3	5.3
10. Social	3	5.3
11. Enjoyment	2	3.4
12. Balanced life	1	1.7
13. Develop creative ability	1	1.7
14. Develop skill	1	1.7
15. Use of initiative	1	1.7
Total	56	100.0

The fifth item in this questionnaire was: In your opinion, what courses in your field should be offered to students for the development of hobbies? The answers to this question showed that many courses are already being offered in college which could serve as bases for hobby development. The emphasis of the instructor on the values of the hobby-aspects of his course would be an influential factor in hobby development. TABLE III shows the hobbies recommended by the college faculty. These are grouped by departments. The departments are listed according to the number of hobbies suggested, those offering the greatest number of suggestions being listed first.

TABLE III

Hobbies Suggested by the College Faculty
in Their Respective Fields of Study

Department Represented	Hobbies Suggested
1. Industrial arts	Drafting Lapidary work Metal casting Metal working Model building Radio Recreational handicraft
2. Education	Current history Guidance Methods in art Methods in music Audio-visual education
3. Science	Geology Photography Taxonomy
4. English	Radio acting Reading Writing
5. Foreign languages	Foreign cultures Foreign languages Foreign travel
6. Music	Appreciation of music Applied music Band
7. Art	Crafts Painting

The sixth item was: Have you ever taken a course in the field of industrial arts? Ten of this group had never taken any courses in industrial arts. Two had been industrial arts majors in college. The experience

of the other faculty members is shown in TABLE IV.

TABLE IV

Courses in Industrial Arts Taken by
Seven members of the College Faculty

Industrial Arts Courses	Frequency of Courses named
1. Woodworking	5
2. Auto mechanics	1
3. Drawing	1
4. Electricity	1
5. Machine shop	1
6. Welding	1

Most of the experience of those who had taken industrial arts courses was at the high school level. The two industrial arts majors were not included in TABLE IV because they did not specify their specific courses.

The seventh item in this questionnaire was: Would you be interested in taking any industrial arts courses for avocational purposes? The popularity of this type of training for avocational purposes was evidenced by the fact that fifteen members were interested in taking industrial arts courses. Only three answered in the negative. The courses suggested by this group for avocational purposes are given in TABLE V. These are listed according to frequency.

TABLE V

Industrial Arts Courses Requested for
Avocational Purposes by College Faculty Members

Industrial Arts Courses	Number Requesting Each Course	Per Cent of Total
1. Woodworking	10	34.4
2. Radio	3	10.4
3. Cabinetmaking	2	7.0
4. Ceramics	2	7.0
5. Craft	2	7.0
6. Plastics	2	7.0
7. Art metal	1	3.4
8. Auto mechanics	1	3.4
9. Electricity	1	3.4
10. Furniture refinishing	1	3.4
11. Gunsmithing	1	3.4
12. Leather work	1	3.4
13. Metal working	1	3.4
14. Model building	1	3.4
Total	29	100.0

The eighth item in the questionnaire to the faculty was: What are your hobbies? How long? How acquired? On the average, these nineteen individuals had two to three hobbies. Proof of the lasting effect of hobbies is the fact that the average length of time that the hobbies had been pursued was 22.2 years. The individuality of a hobby is shown by the fact that thirty-three different hobbies were named by the nineteen members of this group. The greatest frequency for any of the hobbies was five--for reading, and for music. The tabulations for this item in the questionnaire are shown in TABLE VI.

TABLE VI

Tabulations of the Hobbies
of the College Faculty

Fields Represented by Hobbyists	Hobbies of Individuals	How many Years	How Acquired
1. Art and Music	Work is hobby	20	
2. Biological Science	Hunting	25	From father
	Fishing	25	From father
	Plant classifying	15	Interest
	Animal classifying	15	Interest
3. Business Administration	Sports	20	Interest
	Tennis	18	Self-taught
	Hunting	15	Father.
	Golf	4	Armed service
4. Chemistry	Woodworking	31	H. S. course
	Photography	27	College work
	Hunting	11	Geographical-
	Fishing	11	opportunity
5. Education and Psychology	Gardening	46	Home
	Music	44	School
	Club work	31	Joined club
	Travel	*	
6. Education	Current history	40	School
	Camping	40	By doing it
	Exploring	40	By doing it
7. Education	Reading	40	School
	Travel	40	Parents
	Foreign souvenirs	25	Friends
8. English	Music	20	Teacher
	Radio	10	Army
	Dramatics	10	College
9. English	Reading	20	School
	Book collecting	15	Interest
	Record collecting	15	Interest

TABLE VI (continued)

Fields Represented by Hobbyists	Hobbies of Individuals	How many Years	How Acquired
10. Foreign Languages	Writing	43	College
	Chess	38	Friend
	Gardening	25	Self-taught
	Golf	19	Colleague
11. Industrial Arts	Woodworking	20	Home shop
	Photography	10	Army
12. Industrial Arts	Golf	20	Self-taught
	Audio-visual		
	Education	2	College
	Model building	1	Interest
	Foreign language	1	Interest
13. Industrial Arts	Work is hobby	40	Interest
14. Library Science	Photography	10	Trial-and- Error
	Bowling	*	
15. Mathematics	Reading	35	Parents
	Outdoor recreation	35	Parents
16. Physics	Woodworking	20	Home shop
	Mountain climbing	10	Environment
	Photography	10	Self-taught
17. Physical Education and English	Reading	*	
	Music	*	
	Sports	*	
18. Secretarial Science	Music	25	
	Travel	20	
	Reading	*	
19. Sociology	Conservation	20	
	Marksmanship	12	

* Not determinable from questionnaires.

The thirty-three different hobbies pursued by the college faculty group are listed in TABLE VII. The hobbies are listed according to their frequency of mention.

TABLE VII
College Faculty
Hobbies According to Preference

	Hobbies of the College Faculty	Frequency Given	Per Cent of Total
1.	Music	5	9.1
2.	Reading	5	9.1
3.	Photography	4	7.3
4.	Golf	3	5.5
5.	Hunting	3	5.5
6.	Travel	3	5.5
7.	Woodworking	3	5.5
8.	Gardening	2	3.7
9.	Fishing	2	3.7
10.	Sports	2	3.7
11.	Animal classifying	1	1.8
12.	Art	1	1.8
13.	Audio-visual educ.	1	1.8
14.	Book collecting	1	1.8
15.	Bowling	1	1.8
16.	Camping	1	1.8
17.	Chess	1	1.8
18.	Club work	1	1.8
19.	Conservation	1	1.8
20.	Dramatics	1	1.8
21.	Exploring	1	1.8
22.	Foreign language	1	1.8
23.	Foreign souvenirs	1	1.8
24.	History	1	1.8
25.	Marksmanship	1	1.8
26.	Model building	1	1.8
27.	Mountain climbing	1	1.8
28.	Outdoor recreation	1	1.8
29.	Plant classifying	1	1.8
30.	Radio	1	1.8
31.	Record collecting	1	1.8
32.	Tennis	1	1.8
33.	Writing	1	1.8
	Total	55	100.0

The ninth item was: Which gives you the greatest satisfaction, your job or your hobbies? Job satisfaction is evidently rather high in the teaching field in this local situation as twelve said that they received the greater satisfaction from their jobs. Three said that their hobbies were more satisfying, and four received equal satisfaction. Some of the reasons given for the job satisfaction were:

More tangible results.

I like teaching.

Service to many people.

Because of sincere interest in my job which makes it seem a hobby.

Probably because I am very interested in people achieving things.

It is very close to my hobby.

One should be in work that absorbs his major interest energy.

The three reasons given for receiving the greater satisfaction from their hobbies were:

Pursued at leisure in relaxed atmosphere, either alone or with congenial companions. Enjoy constructive work with hands in using tools and other equipment, and in working out problems involved.

Because I'm not obligated in any way; I can start and stop when I wish.

No responsibilities to worry about. Spontaneous interest in hobbies. They meet my needs and are flexible.

The last item in this questionnaire to the faculty was: If you had the time and money, what hobbies would you pursue? Again the individuality of hobby selection is pronounced, as twenty-six hobbies were named. Travel had the greatest frequency, with six people naming it. Woodworking was second with four, and photography was third with three. TABLE VIII gives the complete list of hobbies for this item.

TABLE VIII

College Faculty Hobby Preference
if Time and Money Were No Obstacles

Hobbies Suggested	Frequency	Per Cent of Total
1. Travel	6	14.7
2. Woodworking	4	9.9
3. Photography	3	7.5
4. Flying	2	4.9
5. Music	2	4.9
6. Research	2	4.9
7. Reading	2	4.9
8. Study	2	4.9
9. Astronomy	1	2.4
10. Book collecting	1	2.4
11. Camping	1	2.4
12. Club work	1	2.4
13. Exploring	1	2.4
14. Gardening	1	2.4
15. Golf	1	2.4
16. Gun collecting	1	2.4
17. Hunting	1	2.4
18. Industrial arts	1	2.4
19. Lapidary work	1	2.4
20. Mechanics	1	2.4
21. Mountain climbing	1	2.4
22. Outside recreation	1	2.4
23. Plant breeding	1	2.4
24. Radio	1	2.4
25. Record collecting	1	2.4
26. Weaving	1	2.4
Total	41	100.0

By comparing TABLE VII with TABLE VIII, it is evident that most of the people would continue to pursue the hobbies which they now have if time and money were no obstacles.

According to these educators, training in the wise use of leisure-time should not be left to chance, but should be developed. They believed that some of the present college courses should be offered with an emphasis upon the specific objective of leisure-time education. The industrial arts courses were suggested as offering many possibilities for such courses. They recognized the social, health, educational, and recreational values to be derived from the pursuit of hobbies, and suggested many hobbies which could be developed in their respective fields. Fifteen of the nineteen members of this group were interested in taking industrial arts courses for avocational purposes. That a need exists for an avocational program is a natural conclusion.

Results from the Questionnaire Given to Industrial Arts Majors

Twenty-four men students who were majoring in the field of industrial arts at the Northern Montana College were asked to complete a questionnaire (Appendix C) for this study. This group of students was selected for the study because it was assumed by the writer that they would

be better qualified to judge the hobby values of industrial arts courses than the other groups of these people. The questionnaires were completed under supervision. This procedure seemed to be the most practical method of securing information for this study as the students could ask questions pertaining to the information needed. The questionnaires could also be checked for completeness. All twenty-four questionnaires were completed and returned.

The first section of the questionnaire was designed for the obtaining of personal data. This section revealed that the students varied in age from eighteen years to sixty-four years, the average being twenty-four years. This average age is five years greater than the average age of the other regular students included in this study. Nine of the twenty-four men were married. This is a little more than thirty-seven per cent. Ten were veterans of World War II, and three were physically handicapped. All but seven of these men had definite occupational objectives. Twelve of them were training to become teachers. Sixteen were sophomores, five were freshmen, and three were special students.

The second section of the questionnaire was for the purpose of determining their hobby interests, facilities, and values. It was learned that the hobbies of these men were somewhat diversified; twenty-one different hobbies being represented. TABLE IX shows the hobbies of this

group. The hobbies are presented according to the frequency of mention.

TABLE IX

Industrial Arts Majors'
Hobbies According to Preference

Hobbies of I.A. Majors	Frequency	Per Cent of Total
1. Photography	8	15.4
2. Woodworking	7	13.5
3. Radio	5	9.6
4. Fishing	4	7.8
5. Mechanics	4	7.8
6. Hunting	3	5.8
7. Model building	3	5.8
8. Sports	3	5.8
9. Flying	2	3.8
10. Music	2	3.8
11. Ax work (logging)	1	1.9
12. Drawing	1	1.9
13. Golf	1	1.9
14. Hotrods	1	1.9
15. Knot work (rope)	1	1.9
16. Leather work	1	1.9
17. Painting	1	1.9
18. Reading	1	1.9
19. Stamp collecting	1	1.9
20. Swimming	1	1.9
21. Wood carving	1	1.9
Total	52	100.0

The average individual in the group had 2.2 hobbies. The average length of time that each hobby had been pursued was seven years. Most of the hobbies were acquired from the school through self-activity. The home and the school were the principal places in which these hobbies were carried on. The equipment used was the minimum possible. Instructional information was sought from

teachers more often than from any other source. Many students also relied upon such other sources for securing information as: books, magazines, friends, and experimentation. The majority of the projects which were made were made for the students' own use. A few were made for sale. The values of hobbies, according to these students, are given in TABLE X. The first four values were suggested in the questionnaire (Appendix C).

TABLE X
Hobby Values Given by the
Industrial Arts Majors

Hobby Values	Yes---No		Total "Yes" Per Cent
1. Educational	17	0	100.0
2. Social	12	2	85.6
3. Health	10	4	71.4
4. Financial	6	8	42.8
5. Recreational	4	0	100.0
6. Entertainment	4	0	100.0
7. Relaxation	2	0	100.0
8. Sentimental	1	0	100.0
9. Safety	1	0	100.0

Seventeen believed that their hobbies were educational. They said that they learned cooperation, to think for themselves, and to understand other people. Only six felt that their hobbies were financial assets. The social benefits were believed to be very real, as many stated that their hobbies helped them to meet people and to make friends. Ten students gave health as a hobby value.

The first question in the third part of the questionnaire to the industrial arts students was: Why did you select industrial arts as a major? The answers were varied, but most of them centered around the liking for creative activity and for working with tools and materials. Some of the answers were:

Like working with machines and materials.

Expect to profit from the experiences.

Because it had to do with machinery.

Like working with machines and doing things with my hands.

Of use, even if I don't teach.

The second question in this section was: What courses do you want to teach? The complete list of courses given and the frequency of each course are shown in TABLE XI.

TABLE XI

Courses Which Industrial Arts
Majors Want to Teach

	Industrial Arts Courses	Frequency	Per Cent of Total
1.	Woodworking	9	22.5
2.	Industrial arts	7	17.5
3.	Machine Shop	6	15.0
4.	Mechanics	4	10.0
5.	Drawing	3	7.5
6.	Mathematics	3	7.5
7.	Radio	3	7.5
8.	Welding	2	5.0
9.	Science	1	2.5
10.	Sheetmetal	1	2.5
11.	Shop maintenance	1	2.5
	Total	40	100.0

The third question here was: What projects have you made this year? These projects had been made in the various industrial arts classes. The selection of projects produced by the students was wide. TABLE XII shows the large variety of projects made.

TABLE XII

Projects Made by the Industrial Arts
Majors this Year (1950-1951)

Projects Made	Number Made	Per Cent of Total
1. Tables	11	15.7
2. Hammers and tools	11	15.7
3. Radios	5	7.1
4. Radio cabinets	4	5.8
5. Machine tools	4	5.8
6. Metal paperweights	4	5.8
7. Model engines	4	5.8
8. Book cases	3	4.3
9. Cedar chests	3	4.3
10. Desks	3	4.3
11. Clock cases	2	2.9
12. Kitchen cabinets	2	2.9
13. Chest	1	1.4
14. Chest of drawers	1	1.4
15. Compass	1	1.4
16. Electro magnet	1	1.4
17. Lamp	1	1.4
18. Magazine rack	1	1.4
19. Picture frame	1	1.4
20. Radio	1	1.4
21. Radio amplifier	1	1.4
22. Rostrum for church	1	1.4
23. Shadow boxes	1	1.4
24. Twin lamp stands	1	1.4
25. Trunk for car	1	1.4
26. Workbench	1	1.4
Total	70	100.0

The fourth question here was: Do you enjoy industrial arts courses? These students were unanimous in their endorsement of the industrial arts courses. This reaction might be expected because the students were in the courses of their own volitions. The reasons given for their answers to this question are similar to the reasons given to the question about selecting industrial arts as their major.

The fifth question was: Do you believe that industrial arts courses should be offered for their hobby values? Nineteen favored this possibility, while three did not. The reasons given for the negative answers were:

Industrial arts are for instructors, not hobby seekers.

Because you learn more in regular classes.

Industrial arts should be a guided course in general education.

A few of the reasons for the answers favoring industrial arts courses for their hobby values, at least in part, were:

Out of someone's hobby comes tomorrow's machines.

Industrial arts covers large fields--there is something for everyone.

People need hobbies.

The sixth question here was very similar to the fourth, and served as a check on it. The question was: Are you

happier when pursuing your hobby than otherwise? All that answered this question wrote, "Yes." Five did not answer. The reasons given for being happier were:

Gets mind off other things.

Keeps from being bored with self.

Worthy use of leisure time.

Things I like to do.

Something different.

Relaxing.

Enjoyment.

The seventh question was: In your opinion, do industrial arts courses have hobby values? Twenty-two answered in the affirmative; two did not answer. This should be a strong recommendation for conducting industrial arts classes, at least in part, for their hobby values in this situation. Other values might supersede this one in other institutions according to the needs and desires of the students.

The eighth question here was: Would you be in favor of belonging to a hobby club? Twenty students were interested in joining a hobby organization. Only one did not wish to join. One was undecided, and two did not answer. The extensive interest shown might well be the basis for organizing such a club.

The ninth question here was: What is your idea of leisure? The answers to this question are given in the

following quotations:

Working on some projects.

Something that is enjoyable and interesting.

Doing something that I like to do.

To do as you please for a few hours.

Doing something you want to do which you do not depend upon for a living.

Spending time at something you enjoy that will relax you for your job.

Taking it easy and doing whatever you feel like.

It is time that a person has nothing definite to do.

Taking mind off work and worries.

Doing something that relaxes your mind from your daily work.

When your time is greater than the work you have to do.

Doing anything not considered work.

From these quotations, it is evident that most of these students believe that doing something that they want to do without outside influence and pressure is leisure. Leisure to them is not loafing or wasting time.

The last question in the questionnaire to these industrial arts students was: What hobbies would you engage in if you had the time and money? TABLE XIII shows that most of the students would continue with their present hobbies. Eight of the first ten hobbies given

in TABLE IX (Hobbies According to Preference) are the same as eight of the first ten in TABLE XIII. The first three hobbies in both tables are the same.

TABLE XIII

Industrial Arts Majors' Hobby Preference
if Time and Money Were No Obstacles

Hobbies Suggested	Frequency	Per Cent of Total
1. Woodworking	8	24.2
2. Photography	6	18.3
3. Radio	3	9.1
4. Hotrods	3	9.1
5. Flying	2	6.1
6. Metal working	2	6.1
7. Model building	2	6.1
8. Car designing	1	3.0
9. Craft	1	3.0
10. Electricity	1	3.0
11. Fishing	1	3.0
12. Hunting	1	3.0
13. Inventing	1	3.0
14. Mechanics	1	3.0
Total	33	100.0

This group of students was somewhat more mature than the remainder of the resident student group, their average age being five years greater. More than a third of these students were married, and nearly half of them were World War II veterans. The values of their hobbies were readily recognized. Health, educational values, and social values were the most outstanding. Within this group, courses in industrial arts for hobby development were favored by nineteen; while three opposed this

emphasis. The psychological advantage of pursuing a subject for avocational purposes was supported by the fact that the students were happy while working on their hobbies. The positive attitude of this group of students toward the hobby values of industrial arts courses should leave little doubt, if any, about the avocational possibilities of this field of education.

Results from the Questionnaire Given to
the Northern Montana College Students
Other than the Industrial Arts Students

One hundred and five resident students at the Northern Montana College were asked to complete a questionnaire (Appendix D) for this study. This group of students was selected for this study because it was desirable, in the opinion of the writer, to secure an evaluation of hobbies from students other than industrial arts majors. It was assumed by the writer that this would give the study a broader scope and, thus, make it more valuable. Seventy-four questionnaires were completed and returned. This is seventy per cent of the total number that was distributed to this group.

The first section of the questionnaire was designed for the purpose of obtaining personal data. This section showed that the age range of this group of students was from seventeen to twenty-three. The average age of the

group was slightly over nineteen. Thirty-five of the students were freshmen, thirty-five were sophomores, two were special students, and two did not indicate their standing. Seventeen were men and fifty-seven were women. Four of the students were married. Approximately ten per cent indicated a physical handicap; eyes being the principal source of trouble. Thirty-eight of these students listed Education as their major subject. The second largest group was made up of young people training to be medical secretaries, with thirteen. Other majors given in order of numerical selection were engineers, secretarial science, business administration, chemistry, physical education, pharmacy, home economics, nursing, and liberal arts. Two did not list their major subjects. TABLE XIV indicates the exact number in each field of study.

TABLE XIV
Major Fields of Study
of the Resident Students

Major Subjects of Students	Number of Students	Per Cent of Total
1. Education	38	51.4
2. Medical secretaries	13	17.6
3. Engineers	5	6.8
4. Secretarial science	5	6.8
5. Business administration	2	2.7
6. Chemistry	2	2.7
7. Pharmacy	2	2.7
8. Physical education	2	2.7
9. Home economics	1	1.3
10. Nursing	1	1.3
11. Liberal arts	1	1.3
12. Unknown	2	2.7
Total	74	100.0

The fact that the Northern Montana College is primarily a teacher-training institution influenced the students' major subjects and their occupational objectives. The reason for the relatively large number of medical secretaries is that the Northern Montana College is one of the few public schools in the United States that specializes in training secretaries for the medical and dental professions. Another important fact is that only seventeen of the seventy-four students in this group were men.

Their occupational objectives were generally in keeping with the major subject indicated, but seven did not indicate their objectives while five stated that their

vocational goals were at present unknown. This would indicate that approximately sixteen per cent had no definite occupational plans at this time. More emphasis placed on occupational guidance would aid this sixteen per cent in selecting definite occupational objectives which would possibly save them from wasting time and money and probably lead them to do better classwork.

The second section of the questionnaire had for its purpose the finding of their hobby interests, facilities, and values. The first part on hobbies was used to secure information pertaining to the hobbies followed by each individual in order to determine his hobby interest, the length of time his hobby had been followed, and the way each hobby had been acquired. This information would indicate whether or not these hobbies had been a lasting activity and whether or not the school was significant in promoting these hobbies. In TABLE XV, the hobbies of the seventeen men students in this group are given. The average number of hobbies for each man was slightly over two.

TABLE XV

Hobbies of the Seventeen Men Students
in the Resident Student Group

Hobbies of the Men Students	Frequency	Per Cent of Total
1. Photography	5	14.4
2. Sports	5	14.4
3. Hunting	4	11.5
4. Model building	4	11.5
5. Fishing	3	8.6
6. Music	2	5.8
7. Radio	2	5.8
8. Boats	1	2.8
9. Car designing	1	2.8
10. Gardening	1	2.8
11. Insect collecting	1	2.8
12. Marksmanship	1	2.8
13. Matchbook collecting	1	2.8
14. Mechanics	1	2.8
15. Reading	1	2.8
16. Stamp collecting	1	2.8
17. Traveling	1	2.8
Total	35	100.0

In TABLE XVI, the hobbies of the fifty-seven women students in this group are given. The average number of hobbies for each woman is 2.4 hobbies. This is a little more than the average number of hobbies for each of the men in this group.

TABLE XVI

Hobbies of the Fifty-Seven Women Students
in the Resident Student Group

Hobbies of the Women Students		Frequency	Per Cent of Total
1.	Cooking	20	14.6
2.	Sewing	17	12.5
3.	Reading	16	11.8
4.	Music	14	10.3
5.	Art	8	5.9
6.	Horseback riding	6	4.4
7.	Photography	6	4.4
8.	Stamp collecting	6	4.4
9.	Gardening	4	2.9
10.	Scrapbook making	4	2.9
11.	Textile painting	4	2.9
12.	Writing	4	2.9
13.	Handicraft	3	2.2
14.	Picture collecting	3	2.2
15.	Club work	2	1.5
16.	Crocheting	2	1.5
17.	Insect collecting	2	1.5
18.	Animal training	1	.7
19.	Ceramics	1	.7
20.	Church work	1	.7
21.	Dancing	1	.7
22.	Dramatics	1	.7
23.	Drawing	1	.7
24.	Foreign correspondence	1	.7
25.	House remodeling	1	.7
26.	Painting	1	.7
27.	Photo tinting	1	.7
28.	Recipe collecting	1	.7
29.	Rugmaking	1	.7
30.	Shellcraft	1	.7
31.	Singing	1	.7
32.	Skiing	1	.7
33.	Sports	1	.7
Total		137	100.0

Forty-three different hobbies were listed by this group of students which did not include those majoring in industrial arts. These are shown in TABLE XVII.

TABLE XVII

Resident Students'
Hobbies According to Preference
(Fifty-Seven Women--Seventeen Men)

Hobbies of the Students	Frequency	Per Cent of Total
1. Cooking	20	11.6
2. Reading	17	9.9
3. Sewing	17	9.9
4. Music	16	9.3
5. Photography	11	6.4
6. Art	8	4.6
7. Stamp collecting	7	4.1
8. Horseback riding	6	3.4
9. Sports	6	3.4
10. Gardening	5	2.9
11. Hunting	4	2.3
12. Model building	4	2.3
13. Scrapbook making	4	2.3
14. Textile painting	4	2.3
15. Writing	4	2.3
16. Fishing	3	1.7
17. Handicraft	3	1.7
18. Insect collecting	3	1.7
19. Picture collecting	3	1.7
20. Club work	2	1.2
21. Crocheting	2	1.2
22. Radio	2	1.2
23. Animal training	1	.6
24. Boats	1	.6
25. Car designing	1	.6
26. Ceramics	1	.6
27. Church work	1	.6
28. Dancing	1	.6
29. Dramatics	1	.6
30. Drawing	1	.6
31. Foreign correspondence	1	.6
32. House remodeling	1	.6
33. Marksmanship	1	.6
34. Matchbook collecting	1	.6
35. Mechanics	1	.6
36. Painting	1	.6
37. Photo tinting	1	.6
38. Recipe collecting	1	.6

TABLE XVII (continued)

Hobbies of the Students	Frequency	Per Cent of Total
39. Rugmaking	1	.6
40. Shellcraft	1	.6
41. Singing	1	.6
42. Skiing	1	.6
43. Travel	1	.6
Total	172	100.0

The total length of time that these hobbies had been followed was 1163 years, or an average of 6.7 years for each hobby. The chief sources from which these hobbies had been acquired were the school, the home, and the hobby club. The motivation was generally supplied through self-interest or the influence of a relative, teacher, or friend.

The second part of this section of the questionnaire which was on hobby facilities indicated the location of hobby activity, the equipment used, availability of supplies, type of instruction sought, and what the hobbyist did with the products if any were made. The location of hobby activity is indicated in TABLE XVIII. Most of the hobbies carried on in the home were in the kitchen, in the home workshop, or in the basement.

TABLE XVIII

Where Hobby Activities are Pursued
by the Resident Student Group

Location of Hobby Activity		Frequency	Per Cent of Total
1.	Home	42	63.6
2.	School	12	18.2
3.	Outside	4	6.1
4.	Any place	4	6.1
5.	Church	3	4.5
6.	Lake	1	1.5
Total		66	100.0

The equipment and supplies possessed by these hobyists were usually the minimum amount needed for their hobbies. The supplies were obtained from the nearest source. The projects which they produced were usually for their own use, but a few were made for friends or for sale. These results are shown in TABLE XIX.

TABLE XIX

Disposition of Hobby Projects
by the Resident Student Group

Disposition of Projects		Frequency
1.	Keep for self	50
2.	Made for gift	20
3.	Made for sale	3

The seven sources of information used in following their hobbies are given in TABLE XX, in the order of their preference.

TABLE XX

Types of Hobby Instruction Used
by the Resident Student Group

	Type of Instruction	Frequency	Per Cent of Total
1.	Self-taught	47	27.6
2.	Magazines	30	17.6
3.	Books	24	14.1
4.	Teacher	22	13.0
5.	Friend	22	13.0
6.	Pictures	14	8.2
7.	Relative	11	6.5
	Total	170	100.0

The information given in TABLE XX shows a need for more direct and less wasteful methods of learning in connection with the hobbies. This need could be met by specific training in the development and pursuit of hobbies through school programs.

The third part of section two of the questionnaire (Appendix D) was on the values of hobbies. A list of six hobby values was used to determine their value according to these students' opinions. A space was provided to allow the hobbyists to add any additional values received from their hobbies. Recreation and education were the two chief benefits derived by these students from their hobbies. The social aspect was also very satisfactory. Health and vocational values were slightly on the positive side, but any financial benefit was of a negative nature--at least in the immediate sense. Other values supplied

by the hobbies, as given by these students were: relaxation, enjoyment, satisfaction, and worthy use of leisure-time. TABLE XXI gives the tabulations of the hobby values, according to these students.

TABLE XXI

Hobby Values Given by
the Resident Students

Hobby Values		Yes---No		Total "Yes" Per Cent
1.	Recreational	58	1	98.5
2.	Educational	50	3	94.5
3.	Social	38	9	80.9
4.	Vocational	22	16	58.0
5.	Health	24	19	55.9
6.	Financial	18	25	41.9
7.	Worthy use of leisure	3	0	100.0
8.	Enjoyment	2	0	100.0
9.	Relaxation	2	0	100.0
10.	Satisfaction	2	0	100.0

The third section of this questionnaire was a list of ten questions which were selected in order to determine the number of courses in industrial arts taken, the avocational interests in industrial arts courses, the kind of hobbies desired, the attitudes toward hobbies, and the attitudes toward the present use of leisure-time.

The first question in the third section of this questionnaire was: Have you ever taken any industrial arts courses? Three out of four of these seventy-four students had never taken an industrial arts course. Of the eighteen

students who had taken such courses, twelve had taken them at the college level, four in high school, and two in elementary school. It is the opinion of the writer that better promotion of industrial arts departments would have resulted in a much larger percentage of these students with experience in industrial arts work.

The second question in this section was: What courses in industrial arts would you like to take for their hobby values? The number of courses suggested was fifteen, but six of them (beadwork, wood carving, leather work, modeling, metal work, and plastics) could be grouped under the heading of "crafts." The courses suggested are given in TABLE XXII and are listed according to the frequency.

TABLE XXII

Industrial Arts Courses Suggested for
Avocational Purposes by the Resident Students

Industrial Arts Courses Suggested		Frequency	Per Cent of Total
1.	Woodworking	24	43.6
2.	Leather work	8	14.5
3.	Crafts	6	10.9
4.	Radio	4	7.4
5.	Metal work	2	3.7
6.	Wood carving	2	3.7
7.	Auto mechanics	1	1.8
8.	Beadwork	1	1.8
9.	Electricity	1	1.8
10.	Lettering	1	1.8
11.	Machine shop	1	1.8
12.	Modeling	1	1.8
13.	Photography	1	1.8
14.	Plastics	1	1.8
15.	Welding	1	1.8
Total		55	100.0

One conclusion which may be drawn from the information given in TABLE XXII is that two types of craft courses should be offered to provide for the needs of these students. A unit type of craft course in which wood is used as the medium of expression, and a general crafts course in which leather, metal, and plastics are the materials used would provide for the needs of the majority of these students.

The third question here was: Have you ever been through the industrial arts shops at the Northern Montana College? Fifty-two had been through the shops. Twenty-one had not, and one did not answer.

The fourth question was: What hobby projects have you made this year? The projects were very diversified. The majority of the projects could be classified as needlework. This is due to the fact that only seventeen of this group of seventy-four students were men. Twenty-eight of these students had made no projects. Fifteen of them had made projects while attending school, and eleven had made projects at home. TABLE XXIII shows the projects made by these students during the last year.

TABLE XXIII

Hobby Projects Made (1950-1951)
by the Seventy-Four Resident Students
(Fifty-Seven Women and Seventeen Men)

Hobby Projects	Where Made
1. Clay modeling	School
2. Collecting recipes	School
3. Crocheted articles	School
4. Figurine painting	Home
5. Handwork (cloth)	Home
6. Made a suit	School
7. Made art designs	Home
8. Made cakes	
9. Made dress	Home
10. Made hooked rug	School
11. Made recipe box	School
12. Made skirt	School
13. Made skirt	Home
14. Made wooden pull-toy	School
15. Model airplane	Home
16. Oil painting	Home
17. Painted Christmas gifts	
18. Paintings	School
19. Phonograph amplifier	Home
20. Portrait painting	Home
21. Small radio transmitter	School
22. Tinted pictures	School
23. Tinting pictures	School
24. Textile painting	Home
25. Water colors	Home
26. Wooden jewel box	School
27. Wooden pull-toy	School
28. Woven projects	School

The fifth question here was: Do you feel a need for a hobby? Thirty-six of the sixty-four who answered this question expressed a need for hobbies. This is more than fifty-six per cent, and indicates an opportunity for the industrial arts department to promote a hobby program in

order to meet the needs of these students. The kinds of hobbies desired by the thirty-six resident students are shown in TABLE XXIV.

TABLE XXIV

Kinds of Hobbies Needed by Fifty-Six
Per Cent of the Resident Students

Kinds of Hobbies Suggested	Number of Requests	Per Cent of Total
1. Handicraft	6	24.0
2. Recreational	6	24.0
3. Textile painting	4	16.0
4. Anything	2	8.0
5. Educational	2	8.0
6. Social	2	8.0
7. Active sport	1	4.0
8. Gardening	1	4.0
9. Music	1	4.0
Total	25	100.0

The main reasons given for seeking a hobby were for the worthy use of leisure-time and for relaxation.

TABLE XXV lists the reasons given in numerical order.

TABLE XXV

Reasons Given by the Resident
Students for Seeking Hobbies

Reasons Given for Seeking Hobbies	Number of Persons	Per Cent of Total
1. Worthy use of leisure	10	37.0
2. Relaxation	7	26.0
3. Enjoy it	5	18.5
4. Avocational use	1	3.7
5. Develop background	1	3.7
6. Exercise	1	3.7
7. Experience	1	3.7
8. Use in later life	1	3.7
Total	27	100.0

The sixth question in the questionnaire was: Are you happier when working on your hobby than otherwise? Fifty-four answered this question; forty in the affirmative. Thirteen gave enjoyment as their reason for being happier. Five said that they were happier when working on their hobbies because these were relaxing, and five gave the worthy use of leisure-time as their reasons for desiring hobbies. Other reasons given were entertainment, accomplishment, and satisfaction.

The seventh question was: Do your hobbies help you in any of your courses? Twenty-nine believed that their hobbies were of no help in their studies, but twenty-six found their hobbies helpful in their studies. The largest number, twelve, said that their hobbies helped them with their English courses. Ten derived direct benefits from

their hobbies in their science classes. The social studies were third. Six of the hobbyists were helped in this field of study. Other courses named were art, music, crafts, mathematics, physical education, home economics, auto mechanics, and practice teaching.

The eighth question here was: Do you budget your time? Most of the students budgeted their time to a degree; only four checked "never." Sixteen checked "yes;" eighteen, "frequently;" twenty-seven, "sometimes;" and eleven, "seldom." By budgeting time wisely, there is usually an adequate amount of leisure-time available for pursuing one's hobby interests. This question was asked to determine to what degree the students used this means of providing for their leisure-time activities.

The ninth question here was: What is your idea of leisure? "Doing as you please" was the answer most often given. Another answer given frequently was, "free time for self-interest." The twenty-two different ideas expressed are shown in TABLE XXVI. A lack of appreciation of the value of leisure-time was indicated by seven of the students who listed "sleeping" as their idea of leisure.

TABLE XXVI

Ideas of Leisure Suggested by
the Resident Students

Resident Students' Ideas of Leisure	Frequency	Per Cent of Total
1. Doing as you please	17	20.5
2. Free time for self-interest	12	14.5
3. Relaxing	9	10.9
4. Sleeping	7	8.4
5. Reading	5	6.1
6. Social events	4	4.8
7. Sports	4	4.8
8. Walking	4	4.8
9. Worthy use of leisure-time	4	4.8
10. Horseback riding	3	3.6
11. Doing something different	2	2.4
12. Listening to good music	2	2.4
13. Fishing	1	1.2
14. Going on a picnic	1	1.2
15. Having fun	1	1.2
16. Listening to the radio	1	1.2
17. Playing a piano	1	1.2
18. Pursuing a hobby	1	1.2
19. Resting	1	1.2
20. Taking a pleasure trip	1	1.2
21. Time off from required work	1	1.2
22. Travel	1	1.2
Total	83	100.0

The last question in the questionnaire to these resident students was: What hobbies would you engage in if you had the time and money? Most would continue with their present hobbies, but on a larger scale. TABLE XXVII gives the hobby preference of these students if insufficient time and money were not obstacles. Comparing this table with TABLE XVII which lists the present hobbies of this group, one may see that the same hobbies are found in both--with a few exceptions.

TABLE XXVII

Resident Students Hobby Preference
if Time and Money Were No Obstacles

Hobbies Suggested	Frequency	Per Cent of Total
1. Photography	15	13.2
2. Travel	14	12.4
3. Music	8	7.1
4. Sports	6	5.3
5. Art	5	4.4
6. Ceramics	5	4.4
7. Sewing	5	4.4
8. Gardening	4	3.4
9. Radio	4	3.4
10. Leather work	3	2.6
11. Singing	3	2.6
12. Woodworking	3	2.6
13. Animal training	2	1.8
14. Boat racing	2	1.8
15. Chemistry	2	1.8
16. Flying	2	1.8
17. Handcrafts	2	1.8
18. Hunting	2	1.8
19. Mechanics	2	1.8
20. Model building	2	1.8
21. Reading	2	1.8
22. Record collecting	2	1.8
23. Antique collecting	1	.9
24. Architecture	1	.9
25. Book collecting	1	.9
26. Car designing	1	.9
27. Clothes designing	1	.9
28. Dancing	1	.9
29. Dish collecting	1	.9
30. Electricity	1	.9
31. Fishing	1	.9
32. Horseback riding	1	.9
33. Interior decorating	1	.9
34. Lapidary work	1	.9
35. Literature	1	.9
36. Physics	1	.9
37. Poetry	1	.9
38. Stamp collecting	1	.9
39. Textile painting	1	.9
40. Weaving	1	.9
Total	113	100.0

The fact that this group of students was composed of fifty-seven women and only seventeen men should be taken into consideration when evaluating the tabular results which are shown in some of the tables found in this section of the study.

The average student in this group had two to three hobbies. The major influencing factors in their hobby selections had been the school and the home. Recreation and education were the two chief benefits which they believed they had derived from their hobbies. The college courses most desired for their hobby values were woodworking and crafts. Nearly half of these students felt a need for a recreational or handicraft type of hobby. Their reasons for seeking a hobby were the improved use of leisure-time and for relaxation. The value of hobbies in promoting happiness was shown by the fact that the majority of these students were happy while pursuing their hobbies. Hobbies were believed to be beneficial in studying several of the college subjects. English and science were held to be the principal subjects benefited. The fact that seventy-five per cent of these students had never taken an industrial arts course indicated an opportunity for the industrial arts department at the Northern Montana College to promote a hobby program in order to meet the needs of these students.

Results from the Questionnaire
Given to the Adult Extension Students

The thirty-one members of the first (1950-51) adult extension class in arts and crafts at the Northern Montana College were asked to complete a questionnaire (Appendix E) for this study. The arts and crafts course was given by the industrial arts department. The main objective of the course was the development and pursuit of avocational interests. The crafts selected by the instructor for this first course were woodworking, leather work, metal work, and plastics. Other areas such as ceramics, jewelry, and electricity were not taught because of the limited equipment in the department. Another limitation on the variety of work offered was the experience of the instructor.

The participants in this first avocational course were adults of the community (Havre, Montana) who were interested in taking industrial arts courses for the specific purpose of developing and pursuing hobbies. The blind person, who was a member of this group, was personally interviewed by the writer. With the assistance of his wife, also a member of this class, he built a table for his home. This man is an enthusiastic hobbyist and he has an elaborate basement workshop where he pursues the following hobbies: ceramics, woodworking, leather work,

and metal work.

In order to check the value of the questionnaire, seven were filled out in personal interviews. Twenty-four of the questionnaires, accompanied by a letter of transmittal (Appendix A) were sent to the remainder of the class members. Twenty-one usable questionnaires were completed and returned which was sixty-eight per cent of the total number distributed to this class.

The first section of the questionnaire was for the purpose of securing personal data about the members of this group. This information revealed that the youngest member of the class was twenty-one years of age, and the oldest was sixty. The average of the group was 32.5 years. Fourteen of those in the group were married, five were single, and two were widows. Two indicated physical handicaps; one had weak eyes and the other was totally blind. The occupations represented by members of this class are shown in the following table. The majority of the group had attended high school. Seven of the eight members who had attended college were graduates.

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TABLE XXVIII

Occupations Represented by
Members of the Adult Extension Class

Occupations Represented	Number of People
1. Housewife	5
2. Business men	3
3. Practical nurse	2
4. Teacher	1
5. Railroad dispatcher	1
6. Home economist	1
7. Soil conservationist	1
8. Department of Agriculture Employee	1
9. Librarian	1
10. Jeweler	1
11. Lawyer	1
12. Unknown	3

The second section of this questionnaire was designed for the purpose of determining their hobby interests, hobby facilities, and ideas about hobby values. In the first part of this section, fifty hobbies were listed as being followed to some extent by the members of this group. This made an average of 2.4 for each individual. The most popular hobbies were: woodworking, leather work, painting, and ceramics. The complete list of hobbies is given in TABLE XXIX. These hobbies seemed to have had a lasting quality, with 10.5 years as the average length of time they had been followed. Many hobbies seemed to have been acquired early in life. The four principal sources of their hobbies were: self-interest,

through relatives, from teachers, and through friends. Other sources mentioned were clubs, hospitals, and the Armed Services.

TABLE XXIX

Adult Extension Class
Hobbies According to Preference

Hobbies of Individuals	Frequency	Per Cent of Total
1. Woodworking	6	12.0
2. Leather work	4	8.0
3. Ceramics	3	6.0
4. Painting	3	6.0
5. Crocheting	2	4.0
6. Fishing	2	4.0
7. Hunting	2	4.0
8. Knitting	2	4.0
9. Metal work	2	4.0
10. Photography	2	4.0
11. Plastics	2	4.0
12. Sewing	2	4.0
13. Stamp collecting	2	4.0
14. Textile painting	2	4.0
15. Animal training	1	2.0
16. Cooking	1	2.0
17. Dancing	1	2.0
18. Drawing	1	2.0
19. Equipment repairing	1	2.0
20. Gardening	1	2.0
21. Gunsmithing	1	2.0
22. Lapidary work	1	2.0
23. Making movies	1	2.0
24. Mechanics	1	2.0
25. Reading	1	2.0
26. Rock collecting	1	2.0
27. Traveling	1	2.0
28. Welding	1	2.0
Total	50	100.0

The second part of this section of the questionnaire, which was concerned with hobby facilities, revealed that most of the hobbies were carried on in the home. The equipment necessary for these hobbies ranged from the minimum needed to follow a single hobby to well-equipped shops. The amount and the type of equipment varied widely because of the variety of hobbies, the type of equipment needed, and the ability of the hobbyist to buy equipment. Instructional information was sought from the following sources: magazines, books, friends, teachers, catalogues, and relatives. TABLE XXX shows the tabulation of the sources of instructional information used by the members of this group. The significance of this tabulation is the fact that it shows a need for skilled instruction to save floundering around by the students.

TABLE XXX

Types of Hobby Instruction Used
by the Adult Extension Students

Type of Instruction		Frequency	Per Cent of Total
1.	Books	7	25.0
2.	Magazines	7	25.0
3.	Teachers	7	25.0
4.	Friends	4	14.3
5.	Relatives	2	7.1
6.	Catalogues	1	3.6
Total		28	100.0

The third part of this section of the questionnaire was concerned with the class-members' ideas of the values of hobbies. Such statements as these were typical of their thinking about educational value of hobbies:

Things learned through hobbies can be very useful.

Anything pursued intelligently has educational value.

Children learn crafts by watching parents.

Learn much about history through collecting stamps.

My hobby helps me to keep informed in many fields.

Knowledge of chemistry is especially useful in ceramics.

The financial values of their hobbies were not stated as positively as the other values listed. Ten believed that their hobbies did contribute some financial return, but six replied that they were financial liabilities. Some of the comments made were:

Financial possibilities not developed yet.

Dresden figurines can be sold.

Sell some ceramics, but make no net profit.

Have heard of financial possibilities.

Cost me money.

Yes, if you collect enough or the right kind (stamps).

The social values derived from these hobbies had been

very satisfactory. Through their hobbies, these people had made many new and interesting acquaintances. Their hobbies had given them topics for discussion. The social values of hobbies are illustrated by the following remarks:

Meet people of all ages and work with them.

Friends come to do pottery work.

Meet nice people

Get acquainted with others of same interest.

Meet rock collectors all over the world.

Social value lies in ability to meet others with the same interest.

Improvement in both mental and physical health were attributed to their hobby activities by members of this extension class, although two members believed that their workshops, which were in their basements, did not contribute to their physical health. Some of the comments on this hobby value were:

A definite diversion is good.

Being outside is healthful.

Mental health derived from pleasant activity.

Dancing is good exercise.

Contrast to desk work.

Good for the nerves.

All recognized the recreational values of their hobbies. Their hobbies gave them something that was

both relaxing and enjoyable to do in their spare time.

Some of the comments given here were:

Like to do it.

Excellent recreational value because of exercise.

Form of relaxation.

Something to do.

I rest when following my hobby.

A tabulation of the hobby values given by these adult extension students is given in the following table.

TABLE XXXI

Hobby Values Given by
the Adult Extension Students

Hobby Values	Yes---No		Total "Yes"
			Per Cent
1. Educational	17	0	100.0
2. Recreational	15	0	100.0
3. Vocational	4	0	100.0
4. Social	12	1	92.3
5. Health	10	2	83.4
6. Financial	10	6	62.5

The third section of this questionnaire was used to get the reaction of this group toward industrial arts courses for leisure-time education. It was also used to get an evaluation of the arts and crafts course which they had just taken. The specific information supplied by these people was: their opinions of the hobby values of industrial arts courses, their interest in another

industrial arts course, their interest in a hobby club, and their suggestions regarding the course they had taken and any future courses that might be offered.

The first question in the third part of the questionnaire to the adult extension class was: In your opinion, do industrial arts classes have hobby values? Twenty members believed that industrial arts classes have or can have definite hobby values. One qualified his answer with, "sometimes." Other comments were:

A person can learn a lot of useful things that can help them at home.

Sometimes, if they are hobbies that can be carried on in the home.

Teaches new hobbies.

Definitely.

The second question in this section was: Should industrial arts courses be offered for hobby purposes? Nineteen believed that industrial arts courses should be offered for hobby purposes, while two were not sure. The following remarks were added to their answers to this question.

Fine idea for both adults and juveniles.

Most (adults) take courses for hobby values.

Have talked to a lot of people who would take the course if it was offered again.

Enjoy work with wood--would like to take other classes.

The third question here was: Would you be interested in another industrial arts course? Twenty members stated that they were interested in taking other and similar courses. One said that it depended upon what was offered. Typical remarks were:

Having no place at home to work, I welcomed the chance to spend my leisure-time usefully in the school shop.

Will be interested in taking hobby courses as long as I live--I hope.

The fourth question here was: If so, (interested in another industrial arts course) what type of course? Woodworking, plastics, and leather work were the most popular suggestions for another course for the future. TABLE XXXII shows the complete list of courses suggested.

TABLE XXXII

Industrial Arts Subjects
Requested for Hobby Purposes
by the Adult Extension Students

Subjects Requested	Number of Requests	Per Cent of Total
1. Woodworking	14	40.0
2. Plastics	6	17.2
3. Leather work	5	14.4
4. Drawing	2	5.8
5. Ceramics	1	2.8
6. Crafts	1	2.8
7. Furniture refinishing	1	2.8
8. Household repair	1	2.8
9. Jewelry	1	2.8
10. Mechanical drawing	1	2.8
11. Painting	1	2.8
12. Weaving	1	2.8
Total	35	100.0

The fifth question was: Would you be interested in belonging to a hobby club? Twelve were interested in joining a hobby club; seven were not, and two said that they might be interested. Lack of time was the reason most frequently given for not wanting to join a hobby club.

The sixth question here was: What suggestions do you have in regard to the course? The following suggestions were made:

Course should last longer than twelve weeks if given only one night a week.

Keep the classes small--maximum of fifteen students per instructor.

More personal supervision. Teach only one craft in the course instead of two or three.

Smaller classes--more individual help.

It should be a unit type of course.

Have materials on hand to avoid wasting time.

More visual aids would be helpful.

The last question in the questionnaire to these adult extension students was: What suggestions do you have for future courses? The majority believed that the classes should be offered for a period of twelve weeks, two nights a week, and three hours per night. This is a total of seventy-two hours. The most desirable hours were between seven and ten in the evening. The winter months were also the most desired time of year.

The fourth section of this questionnaire provided space for miscellaneous remarks. Six people filled in this part of the questionnaire and their remarks are given below.

Need more plans and models for beginners.

Self-teaching devices helpful.

Others that heard about the course after it was started showed interest. More pre-course publicity is needed.

Disappointed in the course because I was interested in fine arts; however, I did get interested in leather work.

Everyone that I have talked to appreciated this opportunity.

Night classes are best for married people.

The average individual in this class was a married woman, 32.5 years of age, with some college training. She was a housewife, with two to three hobbies. Her hobbies were probably woodworking, leather work, or ceramics. She had followed her hobbies for an average of 10.5 years. It is most likely that she had acquired her hobbies while attending school or at home. It is also likely that she received some help from her husband, a friend, or her mother in acquiring these hobbies. She is now pursuing her hobbies mainly through her own initiative.

Her home is the most probable place to look for her when she is following her hobbies, although there is a remote possibility that she would be in a classroom. Her

equipment for working at her hobbies is very modest. She has mostly hand tools, and perhaps one power tool. Most of her supplies are purchased from the nearest known source. She received most of her instruction from magazines and books, but her friends and teachers also gave her a helping hand. Most of the projects that she makes are for herself or for her friends, but she may sell a few.

She definitely feels that her use of leisure-time is educational, but brings more immediate financial loss than gain. This is compensated for by the social, health, and recreational values which she receives and with which she is quite satisfied. She is of the opinion that industrial arts classes have many hobby values, and believes that at least some of these classes should be offered for hobby purposes.

If another course in industrial arts were offered locally, she is interested in taking it and would like to learn more about woodworking, plastics, leather work, and metal craft in that order of preference. If a regular hobby club is organized, the odds are two to one that she would become a member.

Her suggestions for the proposed organization of a future class are: (a) keep the class small; (b) study one unit at a time; (c) have plenty of materials on hand to start the class; and (d) have plans, models, instruction sheets, and other teaching aids available. She was

satisfied with the length of the course which had been held--twelve weeks during the winter--but prefers two evenings a week rather than one evening. The winter quarter was the most desired time of the year because she usually has more leisure-time at this time than during the seasons when outdoor activities are possible.

A course of study in recreational handicrafts for an adult extension class has been proposed by the writer for future adult classes of this nature. The proposed course of study was not intended to be rigidly followed, but was to serve merely as a guide and a source of basic information to assist the teacher in conducting his class. The objective of the course was, "the worth use of leisure-time." Class instruction in three units of work--woodworking, metal, and leather--was suggested. The time to spend on each unit would be four weeks or twenty-four hours. Individual instruction should be given as needed. The proposed course of study has been designed toward the development of students who are able to make intelligent decisions concerning leisure-time activities, who have a thorough understanding of the place, value, and possibilities of hobbies, and who possess a true hobby or a genuine desire to possess one. It is intended that the course of study be very flexible in order that it may be adapted or expanded to meet the peculiarities of widely

varying circumstances, the basic rule being that none of the work should be forced or assigned. The teacher should guide, lead, and help discover the facts, but always the student must make his own plans and decisions. The philosophy behind this proposed course of study was one of an avocational nature with good public relations a desirable outcome.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

This study, conducted at the Northern Montana College during the 1950-1951 school year, shows that a small-college industrial arts department can render valuable service to a community. The large number of persons expressing a desire to participate further in avocational activities warrants the development of courses in this kind of work, at least in this geographical area. Since the trend, in this geographical area at least, is toward the community college philosophy and toward greater emphasis on life adjustment education, provision should be made by the Northern Montana College to conform to these ideas. A program emphasizing means of pursuing avocational interests in a planned manner would give the people in this area more and better contacts with the College, and would aid in establishing good public relations.

In conducting this study, information was secured by questionnaires from four selected groups at the Northern Montana College; a brief comparison of the four groups included in the study is shown in TABLE XXXIII.

TABLE XXXIII

Comparison of the Four Groups in the Study

	College Faculty	I. A. Majors	Resident Students	Adult Class
1. Men	15	24	17	9
2. Women	4	0	57	12
3. Married	16	9	4	14
4. Single	3	15	53	5
5. Widow	0	0	0	2
6. Average Age	*	24	19.1	32.5
7. Average number of hobbies	2.8	2.2	2.2	2.4
8. Average years hobby pursued	22.2	7.0	6.7	10.5

* Information not secured.

This study shows at least some of the values of industrial arts courses in developing avoational interests. The values derived from the pursuit of hobbies, suggested by the students majoring in industrial arts, the students other than the industrial arts majors, and the adult extension class, are given in TABLE XXXIV. Many of the students in the study expressed a need for leisure-time education. Some were interested in belonging to a hobby club. This type of hobby activity would, in itself, promote many worthwhile projects. Other members of the community, outside of the college itself, were also interested in joining a hobby organization. The College faculty group in this study believed that at least some college classes should be given with the predominant objective of education for

the worthy use of leisure-time. Industrial arts courses were recommended as one of the best bases for promoting avocational interests through the development of hobbies.

TABLE XXXIV

Values Derived from Pursuing Hobbies

Values Derived from Pursuing Hobbies		I. A. Majors Yes--No		Resident Students Yes--No		Adult Class Yes--No		Total "Yes" Per Cent
1.	Recreational	4	0	58	1	15	0	98.6
2.	Education	17	0	50	3	17	0	96.5
3.	Social	12	2	38	9	12	1	83.6
4.	Health	10	4	24	19	10	2	64.0
5.	Vocational	0	0	22	16	4	0	62.0
6.	Financial	6	8	18	25	10	6	46.4
7.	Entertainment	4	0					100.0
8.	Relaxation	2	0	2	0			100.0
9.	Worth use of leisure-time			3	0			100.0
10.	Enjoyment			2	0			100.0
11.	Satisfaction			2	0			100.0
12.	Safety	1	0					100.0
13.	Sentimental	1	0					100.0

Courses in industrial arts suggested for hobby purposes by the college faculty, the resident students other than the industrial arts majors, and the adult extension class, are shown in TABLE XXXV. These courses are listed in the order of their preference.

TABLE XXXV

Courses in Industrial Arts
Suggested for Hobby Purposes

	Courses in Industrial Arts	College Faculty	Resident Students	Adult Class	Total
1.	Woodworking	10	24	14	48
2.	Leather work	1	8	5	14
3.	Craft	2	6	1	9
4.	Plastics	2	1	6	9
5.	Radio	3	4	0	7
6.	Ceramics	2	0	1	3
7.	Metal work	1	2	0	3
8.	Auto mechanics	1	1	0	2
9.	Cabinet making	2	0	0	2
10.	Drawing	0	0	2	2
11.	Electricity	1	1	0	2
12.	Furniture refinishing	1	0	1	2
13.	Wood carving	0	2	0	2
14.	Art metal	1	0	0	1
15.	Beadwork	0	1	0	1
16.	Gunsmithing	1	0	0	1
17.	Household repair	0	0	1	1
18.	Jewelry	0	0	1	1
19.	Machine shop	0	1	0	1
20.	Mechanical drawing	0	0	1	1
21.	Model building	1	0	0	1
22.	Painting	0	0	1	1
23.	Photography	0	1	0	1
24.	Weaving	0	0	1	1
25.	Welding	0	1	0	1

The information given in TABLE XXXV should be of value to the industrial arts department at the Northern Montana College and to similar communities in planning future courses of study for avocational programs.

ADVANCE BOND

WILL BROWN Paper

Conclusions

The specific objectives of this study were the following: (a) to determine, as far as possible, the hobby values of industrial arts courses; (b) to determine the values of hobbies; (c) to determine the hobbies needed or desired by adults; (d) to determine the need for leisure-time education by certain adults; and (e) to determine the attitudes of four selected groups toward leisure-time education.

The conclusions drawn from the information secured by this study of the contributions that the industrial arts courses at the Northern Montana College might make toward education for the use of leisure-time through the development of hobbies are the following:

1. Industrial arts courses offer many possibilities for the development of worthwhile hobbies.
2. Hobbies are valuable to the individuals who possess them because they bring happiness, friendship, knowledge, and relaxation.
3. Many hobbies are needed and desired by the people who were included in this study.
4. The need for leisure-time education by certain adults is a problem which should receive further study and consideration by the educators of this geographical area.

5. The attitude of the four groups who participated in this study toward leisure-time education was one of appreciation for the value and importance of this aspect of education.

The recommendation is made that the administration and the staff of the Northern Montana College study this idea further and, if it is deemed practicable, make definite provisions for putting at least some of these suggestions into effect.

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APPENDIXES



APPENDIX A

Letter of Transmittal

June 1, 1950

Dear Sir:

All persons who were in the "Arts and Craft" class at Northern Montana College are being requested to complete the enclosed questionnaire and to return it in the self-addressed envelope.

The purpose of the questionnaire is to aid in determining the hobby values of this course in the Industrial Arts Department and also to assist in planning future courses.

Thank you for your assistance in this matter.

Yours truly,

Jesse W. King,
Assistant Professor,
Industrial Arts Department.

Encl.

APPENDIX B

Faculty Questionnaire

NORTHERN MONTANA COLLEGE FACULTY

- I. Do you believe that we should have some college courses with "Education for Leisure" as the pre-dominant objective? Yes___No___. Why?_____
- II. Which courses in college might serve best as bases for the development of hobbies?_____
- Why?_____
- III. Do you believe that hobbies are valuable? Yes___No___. Why?_____
- IV. What are the values of hobbies?_____
- V. In your opinion, what courses in your field should be offered to students for the development of hobbies?_____
- VI. Have you ever taken a course in the field of Industrial Arts? Yes___No___. If yes, what?_____
- VII. Would you be interested in taking any industrial arts courses for avocational purposes? Yes___No___
If yes, which ones?_____
- VIII. What are your hobbies? How long? How acquired?
- | | | |
|----------|-------|-------|
| 1. _____ | _____ | _____ |
| 2. _____ | _____ | _____ |
| 3. _____ | _____ | _____ |
| 4. _____ | _____ | _____ |
- IX. Which gives you the greater satisfaction, your job? _____ or your hobbies?_____. Why?_____
- X. If you had the time and money, what hobbies would you pursue?_____
- _____
- _____
- _____

APPENDIX C

**Questionnaire to
Students Majoring in Industrial Arts**

STUDENTS MAJORING IN INDUSTRIAL ARTS

I. Personal Data:

Name _____ Age _____ Marital Status _____
 Address _____ Veteran: yes _____ No _____
 Occupational Objective _____ Physical Handicaps _____
 Class at N.M.C.: Freshman _____ Sophomore _____ Special _____

II. Hobbies:

A. What are your hobbies? How long? How acquired?

1. _____
 2. _____
 3. _____
 4. _____

B. What are your hobby facilities?

1. Where _____
 2. Equipment _____
 3. Supplies _____
 4. Instruction _____
 5. Disposition of projects _____
 6. Misc. information _____

C. What are the values of your hobbies?

1. Educational _____
 2. Financial _____
 3. Social _____
 4. Health _____
 5. Other values _____

III. Industrial Arts:

- A. Why did you select industrial arts as your major? _____
 B. What courses do you want to teach? _____
 C. What projects have you made this year? _____
 D. Do you enjoy industrial arts courses? _____ Why? _____
 E. Do you believe that industrial arts courses should be offered for their hobby values? _____
 Why? _____
 F. Are you happier when pursuing your hobby than otherwise? _____ Why? _____

- G. In your opinion, do industrial arts courses have hobby values? _____
- H. Would you be in favor of belonging to a hobby club? _____
- I. What is your idea of leisure? _____
- J. What hobbies would you engage in if you had the time and money? _____
- _____
- _____

APPENDIX D

Questionnaire to

Resident Students

Other Than Industrial Arts Students

RESIDENT STUDENTS

OTHER THAN INDUSTRIAL ARTS STUDENTS

I. Personal Data:

Name _____ Age _____ Sex _____ Marital Status _____
 Address _____ Major Subject _____
 Occupational Objective _____ Physical Handicaps _____
 Class of N.M.C.: Freshman _____ Sophomore _____ Special _____

II. Hobbies:

A. What are your hobbies? How long? How acquired?

1. _____
 2. _____
 3. _____
 4. _____

B. What are your hobby facilities?

1. Where: Basement _____ Garage _____ Kitchen _____ Home
 workshop _____ School _____ Church _____ Other Places _____
 2. List equipment you have: _____
 3. List supplies that you use: _____
 4. What type of instruction do you use? Books
 _____ Magazines _____ Pictures _____ Teacher _____ Friend
 _____ Relative _____ Self _____ Other _____
 5. Disposition of projects: Gift _____ Self _____
 Sale _____ Other _____
 6. Misc. information or comment _____

C. What are the values of hobbies?

1. Educational values: Yes _____ No _____ Comment _____
 2. Financial values: Yes _____ No _____ Comment _____
 3. Social values: Yes _____ No _____ Comment _____
 4. Health values: Yes _____ No _____ Comment _____
 5. Recreational values: Yes _____ No _____ Comment _____
 6. Vocational values: Yes _____ No _____ Comment _____
 7. Other values: Yes _____ No _____ Comment _____

III. Questions:

- A. Have you ever taken any industrial arts courses?
 Yes _____ No _____ If yes, name of school _____
 B. What courses in industrial arts would you like
 to take for their hobby values? _____
 C. Have you been through the industrial arts shops
 at N.M.C.? Yes _____ No _____

- D. What hobby projects have you made this year? _____
Where made? School _____ Home _____ Other _____
- E. Do you feel a need for a hobby? Yes _____ No _____
If yes, what kind _____ Why? _____
- F. Are you happier when working on your hobby
than otherwise? Yes _____ No _____ Why? _____
- G. Do your hobbies help you in any of your courses?
Yes _____ No _____. Which courses? English _____ Math _____
Science _____ Social Studies _____ Others _____
- H. Do you budget your time? Yes _____ Frequently _____
Sometimes _____ Seldom _____ Never _____
- I. What is your idea of leisure? _____
- J. What hobbies would you engage in if you had the
time and money? _____

APPENDIX E

**Questionnaire to
Extension Class in Arts and Crafts**

EXTENSION CLASS IN ARTS AND CRAFTS

I. Personal Data:

Name _____ Age _____ Sex _____ Marital Status _____
 Address _____ Formal Education _____
 Occupation _____ Physical Handicaps _____

II. Hobbies:

A. What are your hobbies? How long? How acquired?

1. _____
 2. _____
 3. _____
 4. _____

B. What are your hobby facilities?

1. Where? _____
 2. Equipment? _____
 3. Supplies? _____
 4. Instruction? _____
 5. Disposition of project? _____
 6. Misc. information? _____

C. What are the values of your hobbies?

1. Educational values:	Yes	No	Comment
2. Financial values:	Yes	No	Comment
3. Social values:	Yes	No	Comment
4. Health values:	Yes	No	Comment
5. Recreational values:	Yes	No	Comment
6. Other values:	Yes	No	Comment

III. Industrial Arts Course in Arts and Crafts:

- A. In your opinion, do industrial arts classes have hobby values? _____
- B. Should industrial arts courses be offered for hobby purposes? _____
- C. Would you be interested in another industrial arts course? _____
- D. If so, what type of course? _____
- E. Would you be interested in belonging to a hobby club? _____
- F. What suggestions do you have in regard to the course? _____

G. What suggestions do you have for future courses?

1. Length of course? _____
2. Time for classes? _____
3. Other suggestions? _____

IV. Miscellaneous remarks: _____

