



An evaluation of the Montana State College home management courses  
by Patricia Johnson Robbins

A thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of  
MASTER OF SCIENCE in Home Economics  
Montana State University  
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**Abstract:**

The purpose of this study was to evaluate the Montana State College home management courses. Questionnaires were mailed to 1957-61 Montana State College home economics graduates and personally administered to a group of 1961-62 student wives of the same institution. The total study involved 151 respondents of which one hundred were home economics graduates and fifty-one were wives of college students.

Questions were arbitrarily scored 1, 2, or 3 according to the answer of "seldom," "occasionally," or "frequently." Data were analyzed using chi-square, analysis of variance, "t" and F-tests. No direct relationship between income and managerial score was discovered. Most of the home management principles taught at the home management house had been accepted by the graduates. A significant difference at the .05 level between the means of the managerial scores of the graduates and the student wives was found. In all three tests which compared the managerial scores of the two groups, human resource management, material resource management, and work simplification, the mean of the graduates was higher than that of the student wives.

A curvilinear relationship resulted when the work simplification score means of the graduates who were married at the time the courses were taken and the means of those graduates who were not were graphed according to income groupings. The mean scores of the former resulted in a concave curve, while the reverse situation occurred in the latter. Although not proven statistically significant, this curvilinear relationship appeared to be a real phenomenon.

Forty-six per cent of the work simplification questions were found significant at the .05 level. Housecleaning practices and the application of work simplification practices to tasks outside the home were found significant. A greater per cent of home economics graduates indicated frequent application of these principles. None of the bed making procedures were frequently accepted by either group. A greater number of student wives indicated ironing a man's shirt in less than five minutes.

The study indicated that the home management courses had affected many of the practices of the home economics graduates. It appeared that the concepts were the valuable part of the home management training and that the performance of individual tasks was less important.

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HOME MANAGEMENT COURSES

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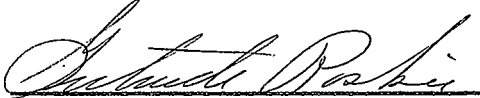
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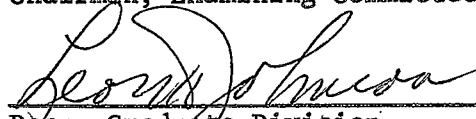
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## ABSTRACT

The purpose of this study was to evaluate the Montana State College home management courses. Questionnaires were mailed to 1957-61 Montana State College home economics graduates and personally administered to a group of 1961-62 student wives of the same institution. The total study involved 151 respondents of which one hundred were home economics graduates and fifty-one were wives of college students.

Questions were arbitrarily scored 1, 2, or 3 according to the answer of "seldom," "occasionally," or "frequently." Data were analyzed using chi-square, analysis of variance, "t" and F-tests.

No direct relationship between income and managerial score was discovered. Most of the home management principles taught at the home management house had been accepted by the graduates. A significant difference at the .05 level between the means of the managerial scores of the graduates and the student wives was found. In all three tests which compared the managerial scores of the two groups, human resource management, material resource management, and work simplification, the mean of the graduates was higher than that of the student wives.

A curvilinear relationship resulted when the work simplification score means of the graduates who were married at the time the courses were taken and the means of those graduates who were not were graphed according to income groupings. The mean scores of the former resulted in a concave curve, while the reverse situation occurred in the latter. Although not proven statistically significant, this curvilinear relationship appeared to be a real phenomenon.

Forty-six per cent of the work simplification questions were found significant at the .05 level. Housecleaning practices and the application of work simplification practices to tasks outside the home were found significant. A greater per cent of home economics graduates indicated frequent application of these principles. None of the bed making procedures were frequently accepted by either group. A greater number of student wives indicated ironing a man's shirt in less than five minutes.

The study indicated that the home management courses had affected many of the practices of the home economics graduates. It appeared that the concepts were the valuable part of the home management training and that the performance of individual tasks was less important.

## CHAPTER I

### PROBLEM SITUATION

Over one-half of the nation's employed women are married. These married women represent over 15 per cent of the total American labor force. Women today also constitute the largest labor reserve. (1) It has been estimated that some 98 per cent of the nation's women will have worked in paid employment during some period of their lives within the next decade. (11) Two studies seem to indicate that this percentage applies to home economics graduates as well as women in general. Lehman reported that 92 per cent of the Ohio State University home economics alumnae studied in 1958 had been at sometime gainfully employed. (8) Hollandsworth reported that 468, or 86.7 per cent, of 540 Montana State College home economics graduates for the years 1935-55 had already been gainfully employed by 1958. (19) Renne stated that the nation's economy needs these employed women if the United States continues to be a major force in the world. (26)

Importance of Management. One factor contributing to the successful functioning of a family when the wife and mother is employed full-time outside the home is the managerial skill of the homemaker. (1) The homemaker of today has a position similar to that of a corporation's top executive. The proficiency with which she handles various domestic problems influences her family's net worth, just as the decisions made by top executives in corporations throughout the country influence the company's gain or loss during each fiscal period. A manager, with the ability to



handle various situations competently, will make definite progress toward the group's objectives.

Although the homes and the businesses of the nation are two separate entities, in today's advanced culture the realization of the interdependence of all aspects of life is eminent. Jennings stated that "business must begin to reach back into the home, school, and community to insure that young people emerge with the qualities business requires." He also feels that "businessmen can no longer ignore family life if business wants to maintain a healthy and prosperous system." (6) At the same time, homemakers can look toward business for its technical expertness in management. Swift and Swift suggest that "you can apply what business has discovered about management and human relations to make an efficient home and a happy family." (25) True enough, a home is not a commercial enterprise, but there is a definite carry-over of "sound practice" from one to the other. Researchers in industry and education have shown that reasonable order and organization, pleasant furnishings and color schemes improve efficiency while lifting spirits and heightening morale. (25)

Paget suggests that a prospective manager develop his executive skills by doing some long range planning. This involves "picking a target, plotting a course, measuring progress, correcting deviations from the plan, adjusting the target according to trends and revising plans correspondingly." (3) The home manager must develop similar skills so that she can "use family resources to achieve family goals." (2) Gross suggests three consecutive steps: "planning; controlling the various elements of the plan while carrying it through, whether it be executed by oneself or by

others; and evaluating results preparatory to future planning." (2)

Managerial qualities for the manager of the home, the fundamental unit of our society, are as valuable as they are for the managers of our nation's large corporations. Gaines has made a list of five qualities of a good manager: (1) intelligent effectiveness, (2) emotional maturity, (3) understanding of human relationships, (4) insight, and (5) ability to organize and delegate. (18) A similar list was made by Fox: (1) creative ability, (2) judgment, (3) administrative skill, (4) positive attitude, (5) courage, and (6) character--high integrity. (4)

Management Training. "Leaders do not come forth automatically simply because a need exists." (7) Today many United States companies use a management training device known as "business games." The notion of business games was borrowed from the war games developed by the United States Naval War College. The typical business game consists of a designated number of players who are assigned to a mythical company. Data on assets, production, prices, advertising and market conditions are given to the players who compete with other teams in decision-making. One such game is sponsored by the American Manufacturing Association. The four-week course is offered at a price of \$850 per player. (5)

High school students have become acquainted with similar management training devices. An organization, Junior Achievement, Inc., is "aimed at giving students a chance to learn about business by doing." (15) In the spring of 1962, 650 members of Junior Achievement, Inc. met for an annual convention in Atlantic City to "gain a better understanding of the

American system of free enterprise." (15) One of the highlights of the convention was a competitive business game.

On the college level, the concept of management is incorporated into a variety of fields. Wildlife Management, Traffic Management, Hospital Management, and Newspaper Editorial Management are titles of some management courses offered in universities in the United States. (9)

Management training materials are available to the public by writing to the Superintendent of Documents in Washington, D. C. These materials were contributed by the Department of Defense and compiled by the Department of Labor. Pamphlets are available on work simplification, human behavior and leadership, how management judges its supervisors, and problems in management for top executives. (16)

Home Management Training. On the domestic level, managerial training can aid in the development of a happy, organized family. Home management training for all young women appears desirable in order that they may carry their dual responsibility of homemaking and employment outside the home with greater ease and without sacrificing essential values of home living. (11) High school home economics laboratories are centers for teaching efficient management of time, energy, space and materials. The classes have an opportunity to experiment with motion studies, time schedules, and labor-saving devices. One such class played a competitive game where they planned work areas and equipment arrangements for making biscuits. The arrangement which necessitated the fewest motions, required the least amount of time, equipment, and space and still produced a good

product was chosen the best. (14)

Since World War I, home management has been taught on the college level through a resident course. Typically, six seniors live for six weeks in a college-owned house. Such courses are required in about two-thirds of the degree-granting, home economics institutions in the United States. The students have varying degrees of freedom to organize their own money and practice genuine choice-making. (2)

At Montana State College, each home economics senior is required to enroll in two home management courses concurrently. Home Economics 407, Home Management Theory, three credits, is offered each one-half quarter for four one-hour lectures and two two-hour laboratory periods each week. Home Economics 408, Home Management Practicum, four credits, involves sixteen hours of laboratory work each week. (10)

The objectives of the theory course where the process of management is studied are:

1. To become aware of the activities of the process of management, and their contribution to personal and family achievement of goals.
2. To learn and use a satisfactory procedure for making satisfactory decisions.
3. To understand that goals of the individual and of the family may be strong enough to motivate better use of family resources.
4. To recognize, use, and increase the supply of resources available.
5. To realize the need for evaluating results in terms of the goals of the individual, group, or family. (21)

Actual experience in application of management techniques is the major emphasis of Home Economics 408, Home Management Practicum. (10)

Students plan and carry on, in rotation, the various household duties. The objectives of this course are:

1. To create a situation in which progress on personal and group goals may be achieved.
2. To provide a laboratory in which the theories learned in home economics and in other disciplines may be applied to problems encountered in running a house.
3. To give opportunity for creativity and self realization in carrying out the various tasks connected with a household, including the care of a baby. (20)

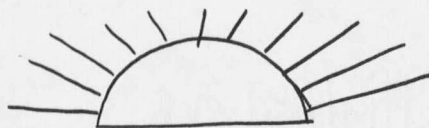
Home Management Defined. Paolucci has defined management as a "mental process, a concentration of desires, a will power." She further stated that "management functions when one is: (1) observing and conceiving ideas, (2) analyzing with further observations, (3) making decisions on the basis of analysis, (4) taking action and (5) accepting responsibilities." (13)

Gross and Crandall state:

Home management, reduced to its simplest terms, is using what you have to get what you want. . . . Its importance lies in the fact that it is the major means of achieving "what you want"--the family goals. It challenges people to use their resources for possibilities they consider important. "What you have" consists of the resources of the family members. These include not only time, energy, money and material goods but also knowledge, interests, abilities, skills, attitudes of family members and community facilities. The second group of resources is less frequently recognized than the first, due to its less tangible nature, but it is equally important.

.....

Figure 1 shows that there is a rough chronological order to the steps of management, although there may be some overlapping. The arrows indicated that planning, controlling, and evaluating are all concerned in the use of resources and that decisions in each step of the process are made in light of goals selected by the individual family.



IN ORDER TO ACHIEVE FAMILY GOALS

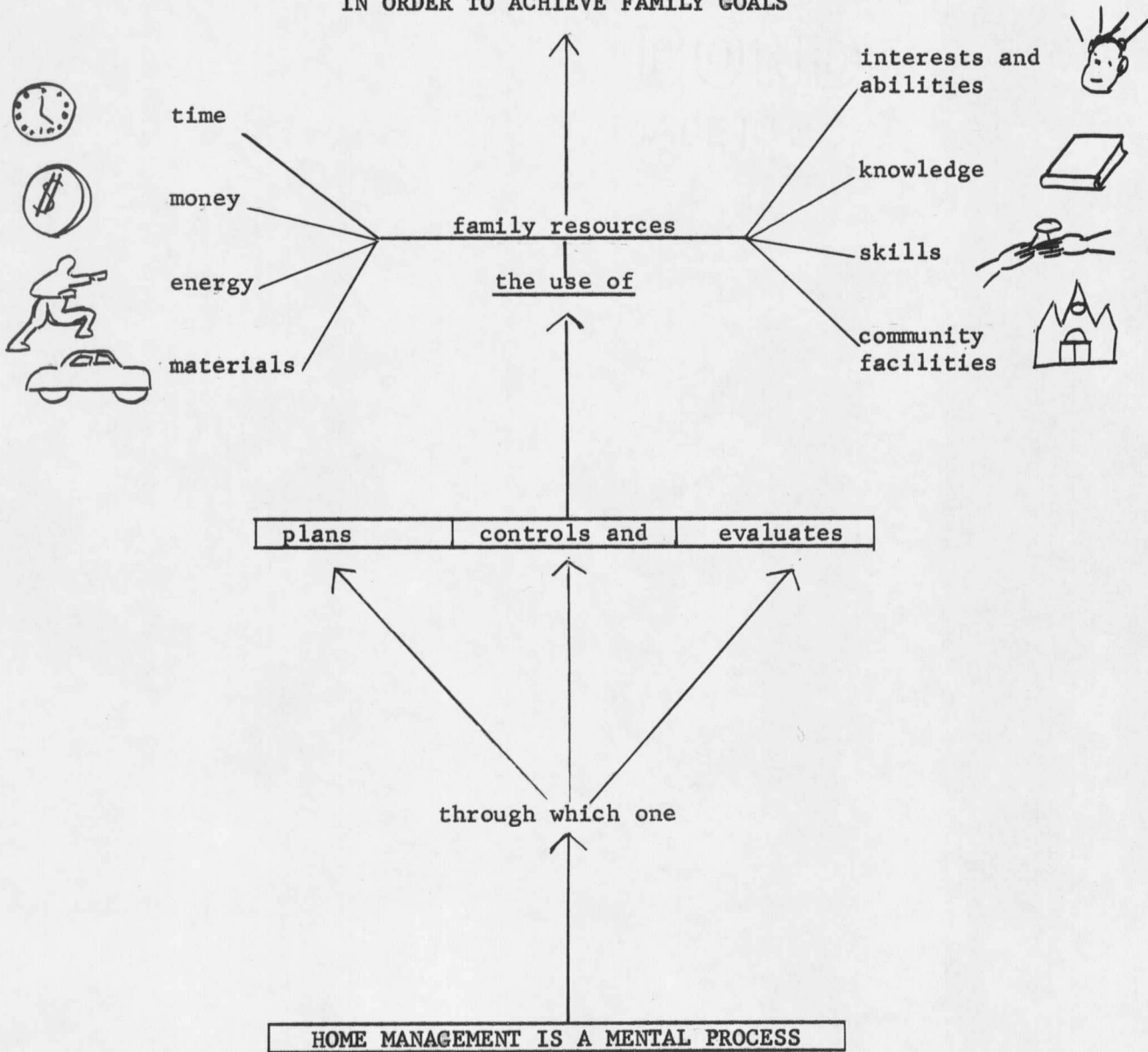


Figure 1: What Home Management Is (2)

A number of misconceptions about home management exist; there is value in pointing out what home management is not.

Home management is not mere performance of work. . . . An activity itself is managerial only insofar as it requires fresh decisions.

Management is not limited to the leader of a group. . . . While it is true that there is usually a leader, all family members who are old enough to make decisions can and should participate in home management. . . . The role in household activities slips from one member of a family to another as the situation demands.

Good managers are trained not "born". . . . At the turn of the century, it was questioned whether or not industrial management could be taught. Today it is an accepted branch of study.

Management is not an end in itself. . . . It is a means to achieving family goals--the fundamental purpose of management.

Family goals are not dictated by management. . . . "Goals to be achieved (through management) may be good or bad as judged by society. Society does not condone bank robbing, but it does accept raising funds for the purchase of a rug for the church. However, management is essential to the accomplishment of both projects." (2)

Home Management Application. In order to make time for loving family care, Moore made the following suggestions to homemakers which illustrate the importance of the application of home management principles: Prepare food in double quantities so that one-half of the product can be frozen to be used at a later date; Plan meals in advance to save extra trips to the grocery store and to avoid the need for last minute decision-making; If routine breakfast duties are done in the evening, more time can be spent with a demanding family in the morning; Convenience foods and wash-and-wear fabrics save much preparation time. (12)

At universities throughout the United States various studies have been made to discover specific problems connected with home management. The results have contributed to further understanding of the application

of home management principles. King studied a group of home economics graduates and another group of graduates in the fields of business administration, education, and liberal arts. The study showed no significant difference in the amount of time used by the two groups, indicating that the home economics graduates spent as much time performing managerial tasks as those without formal home economics college training. However, it is interesting to note that even though both groups spent the same amount of time in managerial activities, the home economics group spent one hour more per week in the physical care of the family members and they also did more planning and preparation. The non-home economics group tended to eliminate steps in procedure or to reduce the frequency of doing tasks. Consequently, the difference in results of time used by the two groups was not significant. (22)

Neal made a study to determine to what extent the home management courses of one institution helped home economics graduates manage their own homes. The managerial concepts which were found to be helpful were: (1) the importance of family goals, (2) meal management and food purchasing, (3) work simplification methods, (4) decision-making, (5) completion of one job before beginning another, and (6) preparation of budget meals. (24)

Concepts of the desirable, which are distinctive and which influence one's behavior, are known as values. An instrument to determine values of homemakers was devised by Kohlman. The instrument was tested by 146 respondents from one town and two rural areas. The values, health and family life, received the top mean scores. Other values considered were: concern for others, economy, education, friendship, status, and work efficiency.



Mean scores indicated there were some differences in the importance given to the various values when the respondents were grouped according to age and amount of formal education. Analyses of variance indicated, however, that the values considered important were not necessarily influenced by the age of the homemaker or where she lived. (23)

Gage related that among rural farm New York homemakers, with no formal education above high school, the highest value of work output was for meal preparation. For the same group the value at the bottom was for physical care of the family members. The values of work output were higher among those homemakers who reported they enjoyed homemaking. (17)

Summary. Home management training should enable women of today, with their dual role of homemaker and employee, to operate their homes efficiently. The interdependence of today's culture makes it possible to develop home managers through training similar to that which is required for business managers. A description of Montana State College home management courses and recent literature regarding home management application show sound theoretical management concepts. The application of defined home management principles should facilitate progress toward goals. However, it was the feeling of the investigator that some of the management principles which are taught in college home management courses are not applied by today's homemaker.

## CHAPTER II

### RESEARCH PROBLEM

The purpose of this research effort was to evaluate the home management courses at Montana State College. The findings will be used as a guide in the revision of the present home management courses, as well as a means of obtaining vital information for the family finance and household equipment courses.

#### Objectives.

1. To discover what management principles were being applied by 1957-61 Montana State College home economics graduates.

2. To obtain suggestions from home economics graduates to aid in the revision of Home Economics courses 407 and 408.

3. To discover the type of equipment used in the home economics graduates' homes and which pieces were valued most in the operation of their homes.

4. To discover the buying habits of the graduates.

5. To discover whether the family income was related to the managerial skills of the family.

6. To compare management practices of home economics graduates who were married at the time of the home management courses with those who were not.

7. To compare management practices of the 1957-61 Montana State College home economics graduates with those of the 1961-62 Montana State College students' wives.

Limitations and Boundaries.

1. The sample included Montana State College home economics graduates from 1957 through 1961 and wives of 1961-62 college students of the same institution.

2. There was no way to determine definitely that the home management courses were the sources from which the home economics graduates learned the techniques they were applying at the time of the study. No attempt was made to control the home-training variable.

3. No attempt was made to pair the home economics graduates with the college wives; however, it seemed reasonable to assume that the two groups would differ in: a. mean income, since the families of the home economics graduates were all receiving at least one full-time wage; b. educational level, since the home economics group were all college graduates; c. age, since there is a possibility that the average age of the college wives was lower than that of the home economics graduates;

4. The respondent may have answered what she felt she should, rather than what she actually practiced.

Hypothesis I.

Montana State College home economics graduates from 1957-61 do not differ significantly from the wives of 1961-62 Montana State College students in the application of the following home management principles:

- A. Human Resource Management
- B. Material Resource Management
  - 1. Buying Practices
  - 2. Sewing Practices
- C. Work Simplification
  - 1. Housecleaning
  - 2. Dishwashing
  - 3. Food Preparation
  - 4. Ironing
  - 5. Bed Making
  - 6. Storage
  - 7. Tasks Outside the Home

Hypothesis II.

There is no significant difference between the home economics graduates, grouped according to present income, who were married at the time the home management courses were taken and those who were not when the following practices are compared:

- A. Human and Material Resource Management
- B. Work Simplification

## CHAPTER III

### RESEARCH DESIGN

Instrument. A questionnaire was devised, using as guides the bulletin, "Measuring Home Management" from Michigan State College, as well as textbooks by Gross and Crandall, Management for Modern Families and by Nickell and Dorsey, Management in Family Living. The questionnaire was divided into seven parts: (1) General Personal Information, (2) Management of Human Resources, (3) Management of Material Resources, (4) How Most Buying is Done, (5) Selection of Equipment, (6) Work Simplification Practices, and (7) Special Comments. The questionnaire was pre-tested by administering it to eight Montana State College instructors and graduate students. Their suggested revisions were incorporated into the final draft. The questionnaire was coded to facilitate punching the results on electronic computer cards.

Sample. The questionnaire (see Appendix) was mailed to one hundred twenty home economics graduates of Montana State College. A follow-up postcard was sent to non-respondents of the home economics group three weeks after the initial mailing. The same questionnaire was administered to fifty-one 1961-62 Montana State College students' wives. No follow-up was made of this group.

Analysis. If a question was not answered, or if it was checked in more than one column, it became void. A void answer was indicated by a solid column on the electronic punched card. A mechanical sorter was used to tabulate the responses of each question from the individual ques-

tionnaires. Each questionnaire was also given managerial scores for human and material resource management and for work simplification. The scores were computed by giving an arbitrary score of three for each answer checked "frequently," two for each answer checked "occasionally," and one for each checked "seldom." The student wives were unable to answer three questions regarding work simplification since the questions were devised for home economics graduates only (see Appendix, questionnaire, page 4, 4a, 4b, and 5e). Consequently, the work simplification scores of the home economics graduates were adjusted accordingly by giving no points for these three questions.

A "t" test comparison of the human resource management scores was made between the home economics graduates and the student wives. In this comparison, only the scores of the respondents with children were used. A further attempt to somewhat equate the groups was accomplished by eliminating from the test all the scores representing home economics graduates with more than one wage earner in the family.

A "t" test was also used to compare the material resource management scores of the home economics graduates and the student wives, the home economics graduates who had children with those who did not, and another test compared the scores of the student wives who had children with those who did not.

An analysis of variance tested the combined human and material resource management scores of the married graduates who had at least one child and only one wage earner in the family in relation to their present income. The combined human and material resources in relation to present

income of the single graduates were also tested by an analysis of variance.

Present income of the graduates and their marital status at the time the home management courses were taken were criteria for classification in an analysis of variance of the combined human and material resource management scores for a two-way classification with disproportionate subclass numbers. Only the scores of those graduates who had children were used.

In order to determine whether there were any significant differences between the home economics graduates and the student wives with respect to how frequently certain work simplification methods were practiced, 2 x 3 contingency tables were made for each question. Chi-square values were used to test for significance.

So that the work simplification area of the questionnaire could be treated in the same manner as the human and material resource management area, work simplification scores of the graduates who were married at the time the home management courses were taken were compared with those who were not, again in relation to their present income. Two analyses of variance for a two-way classification with disproportionate subclass numbers were made, one using the original work simplification scores and a second one using the adjusted work simplification scores. In addition, a second degree polynomial was fitted for the group of graduates who were not married at the time the courses were taken. A separate analysis of variance was made for the student wives.

The adjusted work simplification scores of the graduates who were married at the time the courses were taken and the student wives' scores which were in the same income classification were compared by F-tests.

The adjusted work simplification scores of the graduates who were not married at the time the courses were taken were compared with the student wives' scores in the same manner.

To further validate the data, F-tests were performed which tested the difference between the overall means of the work simplification scores of the graduates who were married at the time the courses were taken and those who were not and the overall mean of the student wives, ignoring income groups. Confidence limits were obtained for the difference between the means used in these F-tests which had many degrees of freedom.

The income variable was tested in relation to the type of buying practiced by the home economics graduates and the student wives. Contingency tests were made. Chi-square values with two degrees of freedom were obtained to test for significance.

The importance of various pieces of equipment was tested by ranking each piece according to the time it was obtained. In tabulating, the first piece obtained was given a rank of one, the second a rank of two, continuing through five ranks. If two or more items were obtained in the same year, each received the same rank. Only the questionnaires of the graduates who indicated owning all five of the ranked items, vacuum cleaner, automatic washer, dryer, freezer, and television, were used. (see Appendix, questionnaire, page 3, 4 and 5, 7, 8, 12, and 16). Sewing machines were not considered in the ranking because of the assumption that many of the graduates owned these before graduation.

Responses from the special comment section were tabulated by



grouping the suggestions according to management of human resources, management of material resources, work simplification, and general suggestions.

## CHAPTER IV

### DATA ANALYSIS

Population. The total study involved 151 questionnaires which were completed by 1957-61 Montana State College home economics graduates and wives of 1961-62 Montana State College students. One hundred twenty questionnaires were mailed to the home economics graduates. After the first mailing, eighty-three of the 120 questionnaires, or 69 per cent, were returned. A follow-up postcard to non-respondents increased the total response to exactly one hundred questionnaires, or 83 per cent. Wives of the college students completed the other fifty-one questionnaires.

The average number of children per family in the home economics group was 1.51. The student wives ranked a little higher, with an average of 1.67 children per family.

In the married home economics group, as well as the college wives group, 40 per cent were full-time homemakers. The other 60 per cent of each group assisted in earning part of the family income.

The mean income of the student wives was in the category below \$3000, while the means of the single and married home economics graduates were in the \$3000-5000 and \$5000-7000 category, respectively.

#### Hypothesis I

A restatement of hypothesis I and related data follow.

Montana State College home economics graduates from 1957-61 do not differ significantly from the wives of 1961-62 Montana State College students in the application of the following home management principles:

- A. Human Resource Management
- B. Material Resource Management
  - 1. Buying Practices
  - 2. Sewing Practices
- C. Work Simplification
  - 1. Housecleaning
  - 2. Dishwashing
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  - 6. Storage
  - 7. Tasks Outside the Home

Management of Human Resources. In the analysis of human resource management scores (see Appendix, questionnaire, pages 1 and 2, 1-22), question eighteen was eliminated from the scoring since a response checked "frequently" would indicate a negative value in relation to the other questions. Therefore, the highest possible score for the human resource management section was sixty-three. Only those married respondents who had children were considered, because the single respondents and those without children checked the "does not apply" column for questions sixteen through twenty-one.

The difference between the means of the human resource management scores of the home economics graduates with children and the student wives with children is shown in Figure 2. The mean score of the home economics

























































































































