August 1, 1941

To the Committee on Graduate Study:

I am submitting to you a thesis written by Witt Samuel Cloys entitled "A Study of Content for Teaching Agriculture to Girls and Home Economics to Boys, As Determined by Students' and Teachers' Opinions." I recommend that it be accepted for nine quarter hours credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Education.

H. E. Fitzgerald
Major Professor

We have read this thesis
and recommend its acceptance:

R B. Moore

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Accepted for the Committee

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Dean of the Graduate School

A STUDY OF CONTENT FOR TEACHING AGRICULTURE TO GIRLS AND HOME ECONOMICS TO BOYS, AS DETERMINED BY STUDENTS' AND TEACHERS' OPINIONS

A THESIS

Submitted to
the Committee on Graduate Study
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Arts

---

by

Witt Samuel Cloys

August 1941

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CHAPTER I

THE PROBLEM

Introduction

The first of the national vocational education acts, known as the Smith-Hughes Act, was passed by the Sixty-fourth Congress of the United States and signed by the President on February 23, 1917. Through the provisions of this Act, the Federal Government appropriates funds to State Boards of Vocational Education to be used, in part, for the payment of salaries of vocational agriculture and home economics teachers in the training of persons for useful employment.

In order for the State Board for Vocational Education to receive these funds, it must stipulate to the Office of Education, United States Department of the Interior:

> 1. That the controlling purpose of the education is to fit for useful employment.
>
> 2. That the education shall be less than college grade.

For agricultural education, the State Board stipulates:

> 3. That the education is designed to meet the needs of persons over 14 years of age, who have entered upon or are preparing to enter upon the work of the farm or of the farm home.

For home economics education:

> 4. That the education shall be designed to meet the homemaking needs of persons over 14 years of age.[1]

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1. United States Department of the Interior, Statement of Policies for the Administration of Vocational Education, Vocational Education Bulletin No. 1, Revised February 1937, pp. 10-12.

The fundamental principles of both home economics and agricultural education are the same, that of educating persons to meet their needs and to prepare them for useful employment. The fundamental problem is also the same, that of raising the standard of living in the home and community. Realizing that the farm and home problems are family enterprises and not individual enterprises, the educators in the fields of agriculture and home economics are attempting to coordinate the work between the departments so that the boys and girls enrolled in the all-day classes in the high schools, and the men and women enrolled in part-time and evening classes in the community may come to some agreement as to what should be done to raise the standard of living in the home and community.

The Committee on the Cooperation of Agriculture and Home Economics, which met at the Seventeenth Annual Southern Regional Conference in New Orleans, 1935, summarized a report of their findings which show the need of a mutual understanding of agriculture and home economics workers. It reports:

> 1. Since our agriculture and home economics services are for the farm homes rather than the homes for the use of our programs, we might unify our efforts by setting up a common aim such as The Promotion of Better Living Within the Farm Community.
>
> 2. Agriculture and home economics have mutual responsibilities for the enlightenment of communities as to conditions existing in farm homes, pointing out factors for these conditions and possibilities for improving them. We are concerned with the quality of living as well as the quantity of money and materials produced.[2]

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2. Seventeenth Annual Southern Region Conference Report, Home Economics Education, 1935, p. 21.

The exchange of classes between the teachers of agriculture and home economics is one of the common methods used to acquaint boys and girls with the activities and joint responsibilities of family living. In the exchange of classes the teachers of agriculture teach the home economics girls, while the home economics teachers instruct the agriculture boys. In many cases the topics taught the boys and girls are based on both teachers' opinions of pupils' needs. It is probable that some of these opinions are based on prescribed courses of study or on state-adopted books. A report on cooperative work among home economics and agriculture teachers in the State of Alabama states that home economics and agriculture teachers exchanged classes and the subject matter was determined by what the agriculture teachers thought the boys needed and by what the home economics teachers thought the girls needed.

> In exchange of classes the home economics teacher may give work to the boys which the agricultural teacher believes the boys really need. The agricultural teacher in turn may make a contribution to landscaping the home, simple home repairs, and other plans of work which the home economics teacher emphasized, but rarely has the background to teach.3

Prior to the beginning of this thesis, the writer, a teacher of vocational agriculture, desired teaching content on which to base a course of study in the exchange of classes between the departments of agriculture and home economics in his own high school. He was interested in determining the needs of the individual before selecting the course content. He was also interested in the joint teaching programs of agriculture and home economics.

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3. Ibid., p. 22.

Purpose of Study

The purpose of this study is to present data, based on felt needs of rural boys and girls, which may be of assistance to teachers of vocational agriculture and home economics in developing a co-operative or joint teaching program for the rural boys and girls in the high schools of Tennessee.

With a trend toward closer-relationship programs between home economics and agriculture departments, an attempt will be made to show the progress in the development of the different types of teaching programs. In order to determine this development, the work of other investigators will be shown.

Through this study, general information will be presented regarding the exchange of classes between the agriculture and home economics teachers in the State of Tennessee. Some of the facts which the writer hopes to present are:

1. Number of years the teachers of agriculture and home economics have participated in the exchange of classes.

2. The subject matter which has been taught the boys by the home economics teacher in the exchange of classes.

3. The subject matter which has been taught the girls by the agriculture teacher in the exchange of classes.

4. Opinions of agriculture teachers, home economics teachers, and of 9th, 10th, 11th, and 12th grade boys as to what subject matter should be taught boys in the exchange of classes.

5. Opinions of agriculture teachers, home economics teachers, and of 9th, 10th, 11th, and 12th grade girls as to what subject matter should be taught the girls in the exchange of classes.

6. Opinions of both boys and girls in the 9th, 10th, 11th, and 12th grades as to their felt needs regarding subject matter which should be taught them in the exchange of classes in order to determine if desirable course content might be assigned grade placement based on pupils' felt needs.

7. Comparison of town and country girls' opinions as to the subject matter which should be taught them in the exchange of classes in an effort to determine if course content should be the same for each group.

8. Comparison of teacher-pupil opinions to determine whether or not the subject matter, if chosen by the pupils, would differ materially from that selected by the teachers.

Limitations of the Study

No attempt has been made to set up a course of study to be used by the teachers of agriculture and home economics in the exchange of classes between the two departments. Due to the many different needs experienced by individual pupils, it is thought that a state-wide course of study could not be set up to meet the needs of the individuals of the entire state. Neither is it thought that a course could be set up for a high school which will meet the needs of every individual.

Definition of Terms

"Exchange of classes" will refer to the interchange of classes between the teachers of agriculture and home economics whereby the teacher of agriculture directs the home economics girls, while the teacher of home economics directs the agriculture boys.

"Joint programs" will refer to programs carried on jointly by the teachers of agriculture and home economics. One phase of the joint program may include a "joint teaching program" whereby the agricultural and homemaking groups are taught as a unit rather than in separate groups, as is done in "the exchange of classes."

The term "job" is a term used by vocational agriculture people to designate units of work. For example: Planting corn, cultivating corn, and selecting seed corn are three jobs of work under the enterprise, corn. A crop or an animal may be spoken of as an enterprise. Since some of the subject matter listed under "jobs" includes items or enterprises, frequent mention is made in this thesis of "jobs" or "items."

Related Studies

Previous studies indicate that home economics courses have been offered to boys in some of the high schools in the United States for twenty years. Following the teaching of home economics came the idea of agriculture for girls which resulted in the exchange of classes between the two departments in the high schools. Within recent years the trend of thought among the educators in the vocational

field is the need for joint programs between the two departments in which both sexes may meet together with the teachers of both agriculture and home economics. In this way the common home and farm problems are brought before both groups jointly in the hope that better understanding and solution of these problems will result. An even further development of coordination was begun in 1935 by the Southern Association of Secondary Schools and Colleges in the hope of coordinating and correlating the work of all departments in the high school to meet the need of the individual. An attempt is made in this chapter to show these developments.

One of the earliest records of teaching home economics to boys is a report of a course offered by Minta F. M. McQuiddy, New Albany, Indiana, and described in an editorial in the Journal of Home Economics. This course was offered to junior and senior boys who studied foods and did practical cooking. The editorial states that this is one of the earliest records of home economics for boys and summarizes Miss McQuiddy's letter of October 1, 1919, as follows:

> Her work was with high school boys, only juniors and seniors. Three years ago she had two classes of boys in home economics, studying foods and doing practical cooking. During the past year she has spent two days a week in practical work, one in food study, and two in the study of home and community hygiene.[4]

This course by Miss McQuiddy met the approval of both the boys and the Superintendent of Schools at New Albany. Referring to the

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4. Editorial, Journal of Home Economics, 19:146-149, March, 1927.

interest manifested by the boys, the editorial states:

> One of them wrote that there was no course which he took in high school that he valued more than the home economics work.[5]

A comprehensive study, "Home Problems for Boys" was made by Ivah M. Rhyan[6] to determine what courses should be included in home economics for high school boys. This study culminated in a course of study being made on practical home economics for Indiana boys. Questionnaires of fifty selected topics were sent to 112 representative business men and 203 high school boys, asking them to indicate which topics they thought would be of most value to boys and men. The replies from the men indicated that the boys should be taught the selection of their own clothing, acquiring knowledge of sex hygiene, practicing thrift, health, and family relations. Etiquette, food selection, and nutrition came last in the order named. The replies from the 203 high school boys indicated that the boys were more interested in the ability to choose their own clothes intelligently. They showed the least interest in the knowledge of how to serve at the table.

In a study of the homemaking activities of the high school boys and younger married men of the Matthew Whaley High School District, Williamsburg, Virginia, Sallie Baird Harrison states that "the increasingly widespread opinion of some educators that boys as well as

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5. Ibid., p. 149

6. Ivah M. Rhyan, "Home Problems for Boys," Journal of Home Economics, 22:191-196, March, 1930.

girls need homemaking education is substantiated by this study."[7]

Miss Harrison further emphasizes the need for homemaking education for boys by the following statement:

> If the activities of the younger married men indicate the probable future home responsibilities of boys, which was one hypothesis of this study, we may assume that there will be a continuation of homemaking responsibilities as these boys marry and establish families.[8]

Maurine Smith Pierce compared the homemaking responsibilities of 76 high school boys in the Newbern (West Tennessee) Community with 76 young married men of the same community to determine the need for a home economics course for boys in the Newbern High School. From this study it was found that:

> In general, a course in home economics for high school boys in Newbern and vicinity should include the following topics: selection, purchase, care and repair of clothing; personal grooming; consumer purchasing of foods, clothing, personal and household supplies, and gifts for others; personal and family financing; management of time; child care and training; social and family relations; first aid and care of the sick; housing and house furnishings; household mechanics; certain "out-of-door" improvements; and selection and preparation of food and table service in relation to social customs.[9]

In 1931, Miss Margaret Browder, State Supervisor of Home Economics in Tennessee, and Mr. G. E. Freeman, then Assistant State

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7. Sallie Baird Harrison, Homemaking Responsibilities of Certain High School Boys Contrasted With Homemaking Responsibilities of Younger Married Men in the Same Area in Virginia, Master's Thesis, University of Tennessee, 1934, p. 148.

8. Ibid., p. 149.

9. Maurine Smith Pierce, Homemaking Responsibilities of Certain High School Boys Contrasted With Homemaking Responsibilities of Younger Married Men in the Same Area in West Tennessee. Master's Thesis, University of Tennessee, August 1938, p. 116.

Supervisor but now State Supervisor of Vocational Agriculture in Tennessee, wrote a joint letter to certain teachers of home economics and agriculture suggesting the exchange of classes between the teachers of the two departments. Included with the letter were suggestions as to what the teachers of agriculture and home economics might offer to the boys and girls in the exchange of classes.

The suggestions for the home economics classes were grouped under ten main headings; namely: the home flower garden; plant propagation; paints, stains, and varnishes; simple repair in the household; home poultry; home dairying; the family's food supply; the home vegetable garden; the farm home water supply; and simple upholstery.

The suggestions for the subject matter to be taught the boys were grouped under four main headings, namely: clothing, its selection and care; foods and nutrition; personal and group relationships; house and home management.

At the 1932 State Conference of Agriculture Teachers, it was agreed that 20 per cent of the teachers in the state would exchange classes with the home economics teachers during the school year 1933-1934. It was suggested that ten to fifteen meetings be held and that home beautification, home conveniences, and improvements of church and school grounds and buildings be taught to the girls in this exchange of classes.

While the exchange of classes has become a part of the joint program between the agriculture and home economics departments, the present trend of thought is toward the teaching of the two groups

collectively. Alabama teachers are questioning the idea of separating the two groups when the problems of each group are similar in interest and responsibility. They feel that better understanding would result if the mutual problems were brought to the boys and girls as one group, rather than to each group separately. As expressed in the 1938 Southern Regional Conference Report on Agriculture, vocational agriculture teachers in Alabama agree that:

> Although some good outcomes have resulted from such exchange of classes, teachers in Alabama are beginning to realize that after all they are teaching boys what the girls have already been taught and the girls what the boys have already been taught in their respective classes. They are questioning the advisability of separating instructions on these problems of equal interest and responsibility. Because homemaking is no longer thought of as the lone responsibility of the homemaker, but as the joint responsibility of all members of the family and because it is being recognized more and more that the fundamental problems of living are shared by both boys and girls, they are believing that they should face these problems together. Such an approach would bring about better understanding and cooperation in mutual problems.[10]

The Joint Committee of Agriculture and Home Economics, at the Fourteenth Annual Southern Regional Conference of Supervisors and Teacher Trainers, 1931,[11] went on record as indorsing a "live-at-home" program as the main objective for cooperative efforts between agriculture and home economics teachers for the year 1931-1932. It was suggested that production of foods be taught by the agriculture teacher, and that nutrition and food budgets be taught by the home economics teachers in the joint program for adult classes.

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10. Report of Twentieth Annual Southern Regional Conference for Agriculture, 1938, p. 55.

11. Report of Fourteenth Annual Southern Regional Conference, Home Economics Education, 1931, pp. 4-5.

In an attempt to carry out the live-at-home idea in Mississippi, the agriculture teachers exchanged classes with the home economics teachers for their all-day groups, and held joint classes for adults. Boys were taught the "selection of balanced meals; were given an understanding of the importance of adequate food for the family; and studied the selection of clothing." The girls received instruction in "problems of rural economics, gardening and poultry." Joint programs were undertaken in the "improving of home environment through sanitation, beautification of the home by planting shrubs and flowers and by modifying the interior, and the promotion of greater uses of cotton." [12]

Several joint problems have been set up by agriculture and home economics departments in South Carolina and Alabama which indicate a need for a joint teaching program in the teaching of boys and girls. Some of the problems set up are:

1. Making homes more convenient.

2. Beautifying home grounds.

3. Improving sanitation of farm home.

4. Gardening--to supply family table and for selling and/or preserving surplus.

5. Flower gardening for home improvement and for family satisfaction.

6. Management of the farm income.

7. Participation in wholesome and adequate home recreation

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12. Report of Fifteenth Annual Southern Regional Conference, Home Economics Education, 1932, pp. 2-3.

8. Entertaining at home.

9. Participation in wholesome and adequate community recreation.

10. Behaving conventionally at social functions.

11. Helping with home problems.

12. Getting along happily with other members of the family.

13. Giving intelligent assistance with younger children.

14. Working on units of farm credit to finance the farm and farm home.[13]

Maude M. Firth[14] reports some outstanding accomplishments in the teaching of family relationships to mixed classes in Central High School, Tulsa, Oklahoma. Six classes were conducted during the second semester of 1935-36 with an enrollment of 246 students. The subject matter was based on student needs and interest. Groups were divided into as nearly family size as possible, and members of each group planned menus and did the marketing together. Such items as the following were included in the subject matter: A study of pictures of family life; house planning and financing; house building; furnishing and management. Plans were worked out for furnishing a bungalow costing $5500. A broadcasting program was put on by the classes. Some of the comments of the pupils regarding the course were:

1. The course helped boys and girls work together in a less tense and more friendly environment.

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13. Report of Twentieth Annual Southern Regional Conference for Agriculture, 1938, p. 46.

14. Maude M. Firth, "Relationships to Mixed Classes," Journal of Home Economics, 29:151-53, 1937.

2. If the sexes are ever going to get along together, they need to work together.

3. When we work together, we girls know exactly what the boys think of a subject, whereas if we were in a class by ourselves we would just guess what they thought, and probably think it up to suit our fancy. When we did find out the truth, it would be like breaking up a dream house.

4. It's no fun to be with girls all the time. Boys are lots more fun than girls, and since we are studying how to make a home, we should study it together.

5. Bring the boys more in contact with girls.

6. The boys learn what the girls know, and vice versa.

7. The students enjoy it much more than just plain out-and-dried discussion classes and lessons.

8. We gain more by experience than we do by reading books.

9. You can deal better with social problems in a mixed group.

10. One of the nicest things about the work is that you can do it without always having to take notes, tests, etc. Those take the interest out of the work.

11. We get the girls' side of the question as well as the boys', but the boys are always right!

Joint Program in the Ripley High School

The agriculture teacher and the home economics teacher of the Ripley (Tennessee) High School conducted a series of ten joint evening school meetings in the neighboring elementary school of Central during the spring months of 1940. The home economics teacher led in the discussion of: food in relation to health, planning meals, balancing a diet, and the food values of some of the most common foods. The agriculture teacher took up the economics of farm gardens, planning a-year-round garden, the growing of vegetables, and the storing of

fruits and vegetables.

Both the men and women seemed interested in all the meetings, entering into the discussions freely, and approving joint meetings for the next year's evening school. The women asked that the home economics teacher give them a few separate lessons in sewing. The men were not interested in learning to sew.

This series of meetings was ended with a fish fry. The women brought slaw, potato salad, pickles, bread and pies. The men bought fifty pounds of Mississippi River catfish--which the women cooked and served. Needless to say, the evening school, with its very fitting finale, was voted a complete success.

The group was not asked to put into writing any remarks concerning the meetings; however, several impromptu remarks were noted both during and after the meetings. Following are some of the comments:

1. Those meetings are going to cause me to have to build my wife a cellar to store her canned goods in.

2. My wife makes me eat turnip greens every day since I've started to these classes. I don't like greens but I am going to have to learn to like them.

3. I am glad my husband was here tonight. The doctors have advised him against eating too much. I believe he will diet more strictly now since he knows the reason why too much meat is injurious to him.

4. We plant all of our vegetables at once. What we need is an all-year-round garden.

5. All of us need to study orchards and poultry for next year.

6. When can we have another fish fry?

The two departments also held a series of joint meetings with the all-day classes during the year 1940-1941. The meetings were held

prior to the Christmas holidays to work out plans for their annual joint program of giving to needy families at Christmas time. The local welfare worker was invited to the meetings. She told of several families who probably would receive nothing at Christmas time unless this group contributed. Other needy families were mentioned by the pupils themselves. A joint committee was selected to pick out the six most needy families. Each member was urged to bring something useful, and during the chapel period different members of the home economics-agriculture group solicited from the entire student body. As a result, food, clothing, toys, books, games and ten dollars in money were given by the student body. When everything was brought to the school the home economics girls assorted the gifts according to ages of the children in each family. The gifts were put into large boxes and carried to the homes of students who could take the boxes to these families either on the night before Christmas or on Christmas morning. This was the fifth consecutive year for this joint program to be carried out in the Ripley High School and it has become a regular and vital part of the school program. Not only are the recipients made happy, but the students who contribute the gifts and those who see that they are distributed receive much pleasure and happiness.

Other joint meetings were held for the all-day groups during the school year. The farm and home supervisors of the local Farm Security Administration were invited for one day to explain how families of low income may buy and operate a farm through the Farm

Security. Four other meetings were held during nutrition week. The home economics teacher discussed nutrition as it relates to health and national defense, while the agriculture teacher discussed the growing of poultry and the handling of eggs. Some eggs were bought from a local store while others were taken from an incubator. The incubator eggs were candled to show the development of the embryo after a few to several hours of incubation. A home made candler was used to candle the eggs, after which each egg was broken and the embryo development noted. Ways were discussed for improving the quality of eggs by proper handling and storing. It is believed that better care in the handling of eggs on the farms will result because of these joint meetings. The girls seemed to be as interested in this study as the boys.

Southern Association Study

The Southern Association of Colleges and Secondary Schools formed a Commission in 1935 to study curriculum problems of the Association. At their first meeting held in Atlanta, Georgia, February 1936, they decided to undertake a study to develop an educational program which would adequately meet the needs of the adolescent youth. This study was to be undertaken cooperatively between high schools and colleges. Funds were made available by the Association for a three-year trial of the project.

In 1936 an Executive Committee was selected. Schools which wanted to participate in the study were asked to submit application with their plans for the year. The directors visited the schools during the year 1937-38. Thirty-one schools were selected from the

states of Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. The three schools in Tennessee selected for the study were: Peabody Demonstration School, Nashville; Norris High School, Norris; and Collierville High School, Collierville, representing the middle, eastern and western sections of the State respectively.

The participating schools are given freedom to develop their teaching procedures and techniques and attack their problems in a way which will most effectively meet the local needs and achieve the desired purposes. Through this method a variety of approaches are being made in working out a solution of the problems in the respective community. Many schools are placing special interest upon the promotion of better school-community relationships, feeling that this has been one of the exceedingly weak spots in the school program. Surveys have been used in some schools to determine the needs and interests. Through this school-community relationship program, it is felt that the school will radiate its influence and usefulness to a much greater degree.

Some phases of work being undertaken by the schools and communities are: improving health and general home conditions, making a community center at the school, and providing classes in adult education. In one school an attempt is being made to organize and administer the curriculum in such a way as to provide for the development of personality traits and attitudes in the individual.

The following was taken from a mimeographed article entitled "The Southern Association Study in Secondary Schools and Colleges"

(A Summary Statement prepared in August, 1939) and presented in the summer of 1940 to the students at the University of Tennessee enrolled in the Southern Study Course.

> Many schools are providing more effectively for those services that were formerly considered the chief function of guidance, such as counseling and occupational information. Guidance is viewed as an integral part of all that the school is trying to do rather than something that is divorced from other phases of the school program. Those schools regard provisions for the needs and interests of pupils as a vital function for guidance. For example, they are attempting to meet the needs of these students who wish to go to college and at the same time meet the needs of the non college group; they recognize the necessity for the provision of proper health and recreational facilities in school and community.... Plans for guidance reveal a recognition of individual differences in pupils and an attempt to provide for individual and social adjustment in terms of recognized needs.[15]

The following quotation shows the important part that this program plays in improving the day-by-day work of students and teachers.

> The schools in the Southern Study are giving special attention to improving the actual learning situation in the day-by-day work of student and teachers. Some of the factors which led the schools to consider certain curriculum adjustments were: the large number of students who drop out before graduation; the apparent lack of relatedness between school experiences and those that follow; inadequate provisions for individual differences of students; the lack of common purpose on the part of the school and other community agencies; the seeming lack of relatedness on a pupil's activities within the school day; the restriction of pupil's activities to those involved in the study of a single text; inadequate emphasis upon the development of pupil's abilities to devise solutions of problems in the absence of minute directions; lack of adequate opportunity for pupils to participate in group activities. These and other characteristics of the existing procedure have caused schools to

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15. "The Southern Association Study in Secondary Schools and Colleges."

> become actively concerned with improving and broadening their programs so that they can become more effective agencies in contemporary society.[16]

In conclusion the article stresses the fact that school procedures should be based on the needs and interests of the child.

> The progress of the Study thus far seems to have focused the attention of the teacher on the development of school procedures which are compatible with the nature of the child, his growth and development. There is an increasing awareness of his needs and interests as the beginning point in the future development of school procedures. The schools are not expecting to accomplish miracles over-night but are interested in the long-time program of steady growth and development.[17]

The method being used by the schools cooperating with the Southern Study in their approach to the problems of the individual, the school and the community, is a challenge to other schools. While the agriculture and home economics teachers have been pioneers in correlating their work, the trend as suggested in the Southern Study points to a broader correlation of the program by seeking closer cooperation between the students and teachers of all subjects in an attempt to meet the needs of both in-school and out-of-school groups. The teachers in agriculture and home economics will no doubt be called upon in this or similar programs to render their part in further improving the living conditions in the home and community.

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16. Ibid.

17. Ibid.

Procedures

For determining student-teacher opinion as to what subject matter should be taught the boys by the home economics teacher, and what subjects should be taught the girls by the agriculture teacher, three questionnaire forms[18] were prepared: one for boys enrolled in agriculture, Questionnaire Form I; one for girls enrolled in home economics, Questionnaire Form II; and one for both the teachers of agriculture and home economics, Questionnaire Form III. Each questionnaire included questions of a general nature and a check list.

The check list for boys was developed by using certain items from a study by Rhyan[19] and included items pertaining to "homemaking needs" for boys. Additional jobs were added by the writer. This list was then given to all four classes of boys in the Ripley High School and each boy was asked to add any additional job which he thought should be on the list. This revised list was then presented to three home economics teachers and to ten agriculture teachers for criticism and for additional jobs. The final check list for boys listed 42 jobs, or items. These are listed as "jobs" in the questionnaire, but will be referred to as "jobs" or "items" since some of the jobs may include an entire unit or enterprise.

The check list for girls included items relating to home, and farm items which were not generally taught the girls by the home economics teacher. The writer made a list of jobs which he thought should

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18. See Appendix for Questionnaire Forms I, II, and III.

19. Ivah M. Rhyan, "Home Problems for Boys," Journal of Home Economics, 22:194-195, March 1930.

be taught the girls by the agriculture teacher and had them presented to the classes of girls taking home economics in the Ripley High School. Each girl was asked to add any additional job which she thought should be on the list. This revised list was then presented to three home economics teachers and to ten agriculture teachers for criticism and for additional jobs which they thought should be on the list. The final check list for the girls was made to include 50 jobs or items.

The check lists included in the questionnaires for both the boys and girls were also included in the questionnaires to be checked by the teachers of agriculture and home economics.

The general questions included in the questionnaire for both boys and girls were the same.

The check list for boys consisted of 42 homemaking jobs and they were asked to check each job which they thought should be taught them by the home economics teacher. Each boy was also asked to list any additional job, not included in the check list, which he thought should have been included. Approximately 1,800 forms were distributed; of this number 1,378 were returned properly filled in by the agriculture boys.

The check list for girls consisted of 50 agricultural jobs. The girls were asked to check each job which they thought should be taught by the agriculture teacher in the exchange of classes, and to list any job, not included in the check list, which they thought should be added. Approximately 2,000 questionnaires were sent to home economics teachers for distribution; 1,629 were returned properly filled in by home economics girls.

The questionnaires for the home economics and agriculture teachers requested the following general information: name of school, the county, and number of years classes have been exchanged. Both the agriculture and home economics teachers were asked to check the jobs which they thought should be taught to both the boys and girls. They were also asked to list any additional job which they thought should be added to the check list for either the boys or girls in the exchange of classes.

Thirty-two vocational agriculture teachers representing east, middle, and west Tennessee, were given, in person, at district and state meetings, questionnaires: one for each boy enrolled in their classes in agriculture; one for each girl enrolled in the home economics department in their schools, and one for each teacher of home economics and agriculture teaching in their school. In addition, questionnaires for boys, girls and teachers were mailed to three agriculture teachers. A letter explaining the reason for wanting the information was sent with a questionnaire for teachers to 100 vocational home economics teachers. A questionnaire for agriculture teachers was given to 80 additional teachers of agriculture at Camp Clements, the State Future Farmer Camp, during the State Conference held in June 1938.

The departments of vocational agriculture and home economics in the high schools listed in Table I returned questionnaires filled in by boys and girls.

TABLE I

NUMBER OF BOYS AND GIRLS RETURNING QUESTIONNAIRES FROM THE THIRTY-TWO SCHOOLS IN TWENTY-ONE COUNTIES OF TENNESSEE

Name of School	County	Boys	Girls
Campbell County	Campbell	33	19
Central High	Carroll	42	24
McKenzie	Carroll	25	11
McLemoresville	Carroll	32	29
Chester County	Chester	79	81
Powell Valley	Claiborne	42	44
Dyersburg	Dyer	36	107
Newbern	Dyer	43	27
Fayette	Fayette	74	80
Humboldt	Gibson	46	14
Milan	Gibson	28	44
Morristown	Hamblen	47	58
Tyner	Hamilton	22	40
Middleton	Hardeman	29	41
Haywood County	Haywood	63	70
Buchanan	Henry	31	25
Grove High	Henry	57	128
Puryear	Henry	26	32
Powell	Knox	36	40
Tiptonville	Lake	36	41
Halls	Lauderdale	36	23
Ripley	Lauderdale	89	60
McMinn	McMinn	24	51
Ramer	McNairy	27	24
Germantown	Shelby	37	38
Millington	Shelby	37	58
Sumner County	Sumner	65	67
Westmoreland	Sumner	39	32
Brighton	Tipton	24	35
Byars Hall	Tipton	76	75
Munford	Tipton	49	42
Unicoi	Unicoi	48	169
		1378	1629

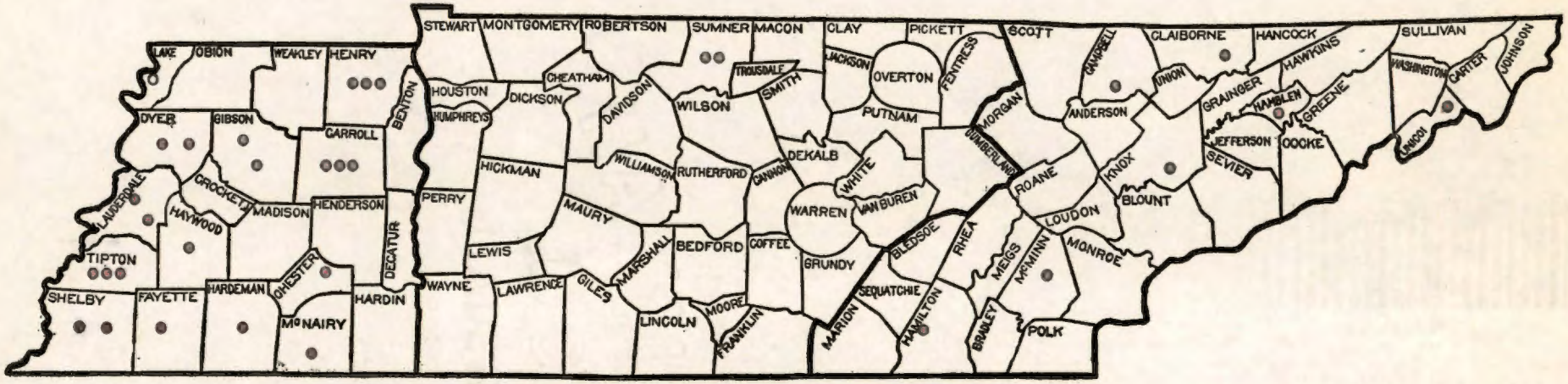
The number of boys and girls listed from each school does not represent the total enrollment of boys and girls in agriculture and home economics classes. Since the questionnaires were sent to the teachers near the end of the school year, final examinations and closing exercises prevented some of the teachers from contacting all of their pupils. Some questionnaire blanks were discarded on account of their incompleteness, while in a few instances not enough blanks were supplied the teachers for their total enrollment.

The survey from the 32 schools represents 23 schools from 13 West Tennessee counties; two schools from one Middle Tennessee county; and seven schools from seven East Tennessee counties. The location of these schools in respect to counties is shown on Map 1.

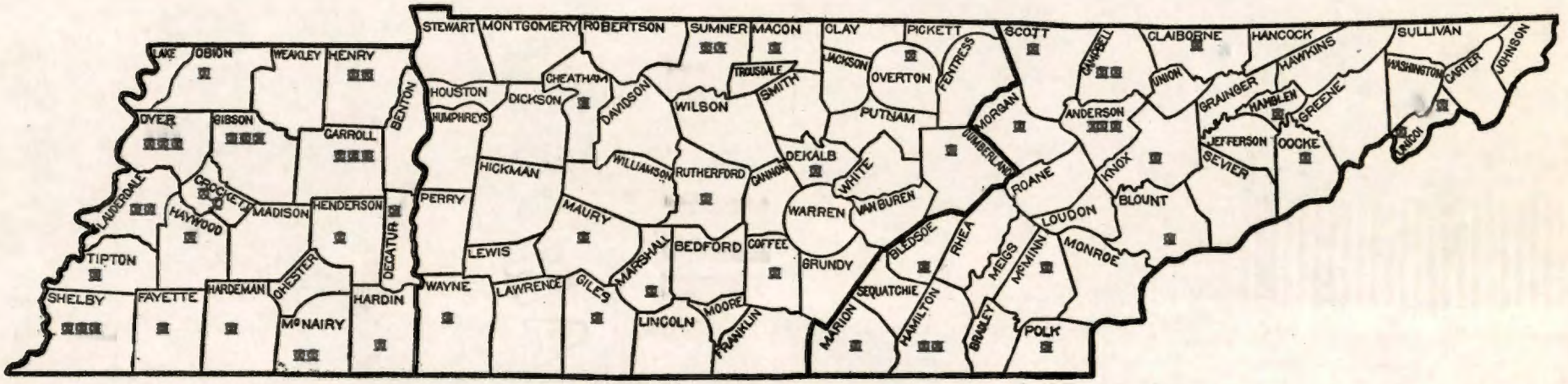
The questionnaires returned by 64 home economics teachers represent 29 schools in 17 West Tennessee counties; 15 schools in 14 Middle Tennessee counties, and 20 schools from 15 East Tennessee counties. The location of these schools in respect to counties is shown on Map 2.

The questionnaires returned by 103 agriculture teachers represent 36 schools in 18 West Tennessee counties; 33 schools in 24 Middle Tennessee counties, and 34 schools in 21 East Tennessee counties. The location of these schools in respect to counties is shown on Map 3.

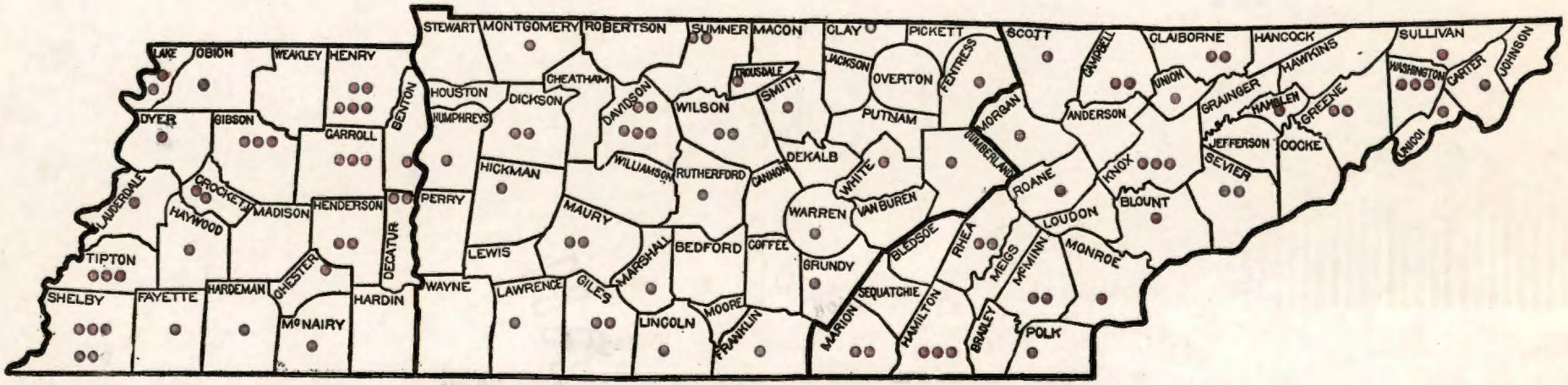
The survey represents a total of 73 counties, with 19 in West Tennessee, 30 in Middle Tennessee, and 24 in East Tennessee. The teachers who contributed data for this thesis represent counties from the three sections of the State as follows:



Map 1. Schools Represented in Study Where Boys and Girls Returned Questionnaires



Map 2. Location, by Counties, of Home Economics Teachers Returning Questionnaires



Map 3. °Location, by Counties, of Agriculture Teachers Returning Questionnaires

West Tennessee: Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, McNairy, Obion, Shelby, and Tipton.

Middle Tennessee: Cheatham, Clay, Coffee, Cumberland, Davidson, DeKalb, Dickson, Fentress, Franklin, Giles, Grundy, Hickman, Humphreys, Jackson, Lawrence, Lincoln, Macon, Maury, Marshall, Montgomery, Overton, Putnam, Rutherford, Smith, Sumner, Trousdale, Warren, Wayne, White, and Wilson.

East Tennessee: Anderson, Bledsoe, Blount, Campbell, Carter, Claiborne, Cocke, Greene, Hamblen, Hamilton, Knox, McMinn, Marion, Monroe, Morgan, Polk, Rhea, Roane, Scott, Sevier, Sullivan, Unicoi, Union, and Washington.

The questionnaires were checked individually. Those for the boys were checked according to their grade or year in school, while those for the girls were checked according to their year in school and also classified as to town or country girl.

CHAPTER II

PRESENTATION OF DATA

This chapter is divided into two parts. The data presented in the first part show the extent of participation in class exchange by teachers of vocational agriculture and home economics prior to the beginning of this study. The second part is subdivided into two parts: the first deals with subject matter in home economics for boys, while the second deals with subject matter for teaching agriculture to girls.

The Extent of Class Exchange Prior to June 1938

For the purpose of determining the extent of class exchange between the departments of agriculture and home economics in the State of Tennessee prior to June 1938, the date when all questionnaires had been distributed, the following information was requested of both the home economics and agriculture teachers:

1. Number of years the agriculture and home economics teachers exchanged classes prior to June 1938.

2. Whether there was an exchange of classes during the past school year, 1937-38.[1]

Table II gives the number of home economics and agriculture teachers cooperating in this study, together with the number of teachers who had exchanged classes either prior to June 1938, or

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1. See Appendix for Questionnaire Form III

during the school year 1937-38. In this study there are 64 home economics teachers and 103 agriculture teachers cooperating. All of the agriculture teachers taught in schools where there was a department of home economics, while only 52 of the home economics teachers taught in schools where there was an agriculture department. Two home economics teachers who taught in schools where there was no agriculture teacher stated in the questionnaire that they had included classes for boys in their teaching program.

Table II shows that 20 of the 52 home economics teachers, or 38.4 per cent of all teachers reporting, exchanged classes with the agriculture teacher during the year 1937-1938. Forty, or 38.8 per cent of the agriculture teachers exchanged classes with the home economics teachers during the same year. It may also be noted that 31 of the 52 home economics teachers and 52 of the 103 agriculture teachers exchanged classes with the other department at some time prior to June 1938. This would indicate that slightly over one-third of the schools in which there are departments of agriculture and home economics practice an exchange of classes each year, and that over one-half of the teachers in the two departments have exchanged classes at some time during their teaching.

TABLE II

THE EXTENT OF CLASS EXCHANGE FOR BOTH THE SCHOOL YEAR 1937-1938 AND YEARS PRIOR TO JUNE 1938 AS DETERMINED BY A SURVEY OF 64 VOCATIONAL HOME ECONOMICS AND 103 VOCATIONAL AGRICULTURE TEACHERS IN TENNESSEE

	Exchange of Classes by	
	Home Economics Teachers	Agriculture Teachers
Teachers included in survey	64	103
Teachers who taught in schools with both agriculture and home economics departments	52	103
Teachers exchanging classes during school year 1937-38	20	40
Teachers exchanging classes at some time prior to June 1938	31	52

Table III shows the number of years the 31 home economics and 52 agriculture teachers exchanged classes prior to June 1938.

The need for including courses in agriculture for girls is indicated by the fact that two of the agriculture teachers have exchanged classes with the home economics teacher for ten different years, while two have exchanged for six years and another two for five years. The largest number exchanged for a period of one to two years. One economics teacher reported having exchanged classes for five years, three for four years, three for three years, nine for two years, and fifteen for one year.

Summarizing the extent of class exchange prior to 1938, we find that the practice was carried on by some teachers at least ten years prior to this time; that over one-half had exchanged classes at some time or other; and that about one-third had exchanged classes during the school year 1937-1938. These facts would indicate that the exchange of classes between the teachers of agriculture and home economics has become an important part of the programs of the two departments in the high schools of Tennessee.

TABLE III

NUMBER OF YEARS 31 VOCATIONAL HOME ECONOMICS TEACHERS AND 52 AGRICULTURE TEACHERS EXCHANGED CLASSES PRIOR TO JUNE 1938

Number of years	Number of Teachers Exchanging Classes	
	Home Economics	Agriculture
1	15	27
2	9	19
3	3	
4	3	
5	1	2
6		2
10		2

Home Economics for Boys

Subject Matter Taught by Home Economics Teachers to Boys in the Exchange of Classes

The home economics teachers who participated in this study were asked to list the jobs they taught the boys in the exchange of classes.[2] In Table IV these jobs, or items, are grouped under six main headings, namely: manners or etiquette; clothing--its selection and care; foods and nutrition; personal and group relationships; health and first aid, and miscellaneous items on house and home. The majority of the 31 teachers who listed the jobs which they had taught boys in the exchange of classes indicated that they had taught some phase of manners or etiquette, something about the care and selection of clothing, and some phase of foods and nutrition. Table manners, selection of clothing, personal grooming, manners for all occasions, selection of food for a well-balanced meal, color and color schemes in men's dress, and simple cookery such as candy making, making of cookies, etc. were taught by home economics teachers in the order named. Items relating to health and first aid, and personal and group relationships were taught to boys by only a few of the home economics teachers.

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2. See Appendix for Questionnaire III

TABLE IV

LIST OF JOBS OR ITEMS TAUGHT BOYS BY 31 HOME ECONOMICS TEACHERS IN TENNESSEE TOGETHER WITH THE NUMBER OF TEACHERS LISTING THE JOB OR ITEM

Jobs or Items	Number of Teachers Reporting
1. Manners or etiquette	27*
a. Table manners	17
b. Manners for all occasions	8
c. In the home	3
d. In public places	2
e. In the school	2
f. Rules of etiquette	1
2. Clothing, its selection and care	26*
a. Selection of clothing	13
b. Personal grooming	11
c. Color and color schemes in men's dress	7
d. Materials for suits; textiles	5
e. Care of clothing	4
f. Pressing one's clothes	4
g. Ironing shirt	2
h. Darning or mending	2
i. Sewing on buttons	1
3. Foods and nutrition	22*
a. Selection of foods as a unit	5
(1) For well-balanced meals	8
(2) Breakfast menu	2
(3) In relation to health	2
(4) For attractiveness	1
(5) How to order meals	1
(6) Dieting	1
b. Preparation of food as a unit	2
(1) Simple cookery including making candy, cookies, etc.	7
(2) Simple breakfast	4
(3) Dinner	1
(4) Balanced camp meal	1
(5) Quick fruit whips for dessert	1
(6) Simple cookery principles	1

TABLE IV (Cont'd.)

LIST OF JOBS OR ITEMS TAUGHT BOYS BY 31 HOME ECONOMICS TEACHERS IN TENNESSEE TOGETHER WITH THE NUMBER OF TEACHERS LISTING THE JOB OR ITEM

Jobs or Items	Number of Teachers Reporting
c. Serving (as a unit)	4
(1) Serving	1
(2) Setting a table	2
4. Personal and group relationships	10*
a. Social customs	4
b. Family relationships	4
c. Home courtesies	3
d. Responsibilities of the man in the home	2
e. Introductions	2
f. Importance of sleep, recreation, bathing and cleanliness	1
g. Cooperating in home activities	1
h. Wise use of leisure time	1
i. Personality; why people like us	1
j. Duties of the host	1
5. Health and first aid	3*
a. First aid	3
b. Care of sick in the home	2
c. Health	1
6. House and home (Miscellaneous)	2*
a. Unit on the home	1
b. Budgeting	1
c. Home appreciation	1
d. Home beautification	1
e. The successful family	1

*Includes the total number of teachers listing one or more jobs or items under the sub-headings.

Homemaking Jobs, or Items, for Boys as Ranked by Agriculture Teachers, Home Economics Teachers and Boys Enrolled in Agriculture

Table V is a summary of the ranking of 42 jobs by 1,378 high school boys enrolled in agriculture, by 103 vocational agriculture teachers and by 64 vocational home economics teachers in the high schools of Tennessee. The heading "All Groups" includes a composite ranking of the jobs by all the boys of the ninth, tenth, eleventh, and twelfth grade, by teachers of agriculture, and by the teachers of home economics. Separate headings are given for each individual group from which comparisons of agreements and disagreements may be made. The ranking by the "1,378 boys" includes the composite ranking of 518 ninth grade, 396 tenth grade, 263 eleventh grade, and 201 twelfth grade boys.

The rank given each job in Table V was determined by tabulating the number of times each job was checked by members of the various groups and then giving the highest rank to the item or job most frequently checked. The highest rank (Rank 1) is given to the job or item checked by the largest number of persons in a particular group while the lowest rank (Rank 42) is given the job or item checked by the fewest number in each group. Where two or more jobs are given the same rank, it indicates a tie, and an average rank is given. For example, the three jobs, "color and color schemes in men's dress," "carving and serving food at the table," and "sewing on buttons" received the same rank by the home economics teachers and therefore were tied for places eight, nine and ten, respectively. Each job is given the average rank of nine in the table. In case two jobs are tied, as, for example, jobs one and two, the average rank of 1.5

is given to each job.

Since there is such close similarity in the ranking given the jobs by the boys and by "All Groups" no comparison will be made between these groups. This similarity is apparently due to the fact that the group of 1,378 boys comprise 89 per cent of all groups, and would naturally tend to bring the rank of each job close together. No further comparison will be made between "All Groups" with the other groups, but agreements and disagreements between boys, teachers of agriculture and teachers of home economics will be taken from Table V and comparisons made.

TABLE V

SUMMARY OF RANKINGS OF 42 JOBS AS INDICATED BY HIGH SCHOOL BOYS, TEACHERS OF VOCATIONAL AGRICULTURE AND TEACHERS OF HOME ECONOMICS

	Average Rank by Groups							
	All	All	Voc. Ag.	Home Ec.	Boys by Grades			
Jobs Ranked	Groups	Boys	Teachers	Teachers	9th	10th	11th	12th
Number persons ranking	1545	1378	103	64	518	396	263	201
Good manners for every occasion	1	1	2	1.5	1	2	1	1
Camp cookery	2	2	15.5	16	2	1	2	4
Learning table etiquette	3	3	1	1.5	3	3	4.5	2
Administering first aid	4	4	7	12.5	4	4	3	3
Balanced diets for invalids	5	5	12.5	14.5	6	5	8.5	10
Responsibilities of men in the home	6	7	3	6.5	10	6	4.5	5
Selection of food in relation to health	7	8	4	6.5	7	10	7	6
Importance of bathing and cleanliness	8.5	10	5	4	8	12	12	8
Care of sick members of the family	8.5	6	21	32	5	8	6	11.5
Problems of sanitation	10	9	12.5	21.5	9	7	8.5	8
Color and color schemes in men's dress	11	11	8	9	12	9	10	11.5
Personal grooming	12	12	6	4	15	11	13	8
How to select choice cuts of meat	13	13	9.5	29	16	14	11	18.5
Pressing one's clothes	14	14	18.5	14.5	11	13	16	18.5
Importance of sleep and recreation	15	15	14	17	13.5	16	15	15.5
Duties of the host	16	17	11	4	22	15	14	13
Appreciating labor-saving devices	17.5	18	16	19	18	20.5	21	15.5
Storing foods	17.5	16	18.5	35	13.5	17	19.5	23
Cooperating in home activities	19	20	26	11	21	20.5	19.5	20.5
Training children in habits; character	20	19	24	26.5	20	19	18	20.5

TABLE V (Continued)

SUMMARY OF RANKINGS OF 42 JOBS AS INDICATED BY HIGH SCHOOL BOYS, TEACHERS OF VOCATIONAL AGRICULTURE AND TEACHERS OF HOME ECONOMICS

Jobs Ranked	Average Rank by Groups							
	All Groups	All Boys	Voc. Ag. Teachers	Home Ec. Teachers	9th	10th	11th	12th
Budgeting incomes	21	21	17	12.5	25	22.5	17	14
Carving and serving food at the table	22	24	9.5	9	23	26	22.5	24
Food costs	23	23	20	21.5	29	24	22.5	17
Cleaning one's clothes	24	22	30	26.5	17	22.5	24	25
Cost of clothing	25	25	25	19	27	25	26	22
Appreciating good books and pictures	26	27	22.5	24.5	26	28	28.5	26
Making candy	27	26	42	38	19	18	25	39
Caring for young children	28	29	33	31	28	29	30	29
How to prepare meals for an invalid	29	28	36.5	34	24	27	32.5	30
Hotel menus	30	30.5	34	19	33.5	31	31	28
Study of textiles used in clothing	31	33	28.5	24.5	38	33.5	27	31
Appreciating convenient rooms	32	35	31	23	36	36	34	32
Kitchen planning and arrangement	33	34	28.5	33	33.5	32	36	36
Canning and preserving foods	34	30.5	39	41	31	30	32.5	35
Floor plans for a home	35	37	22.5	29	32	33.5	28.5	27
Refrigeration	36	36	27	36	35	37	35	33
Sewing on buttons	37	38	32	9	37	38	38	34
Care and selection of kitchen utensils	38	32	15.5	39	30	35	37	37
The time element in food preparation	39	39	38	37	40	39	39	38
Washing dishes	40	40	35	29	39	40	41	40
Course for a caterer	41	41	41	40	41	41	40	41
Making laundry bags	42	42	40	42	42	42	42	42

Since it was felt that some jobs or items which should have been included were probably omitted from the check list in Questionnaire Forms I and III,[3] the boys and teachers were asked to list additional jobs which they thought should be taught by the home economics teacher to boys in the exchange of classes. In response to this suggestion, 70 items were listed by the different groups. These items are given in Table VI.

These additional jobs, or items, are listed under the headings of: foods, clothing, home and family, social and personal, poultry, and recreational. Ten boys wanted to know how to dress poultry. Several of the boys indicated a desire for information on how to be at ease in public and social gatherings. They were interested in learning how to carry on conversations, developing personalities, making introductions, personal grooming, recreational activities, and the cooking of individual dishes, which apparently appealed to their taste. Both the boys and home economics teachers listed items relating to the home and home interior. The teachers of agriculture listed only ten additional items, with no item listed by more than one teacher, thus indicating that the 50 items in the check list included most of the items thought important by the agriculture teacher.

We find that a total of 72 items were included as additional. Of these 72 items, 46 were listed by the boys only; 14 by the home economics teachers only; 7 by the agriculture teachers only; two by all three groups, while one item was listed by both agriculture boys and agriculture teachers, one by home economics teachers and boys, and one by the home economics and agriculture teachers.

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3. See Appendix for Questionnaire Forms I and III.

TABLE VI

ADDITIONAL JOBS, OR ITEMS, WHICH SHOULD BE INCLUDED IN SUBJECT MATTER TAUGHT TO VOCATIONAL AGRICULTURE BOYS IN THE EXCHANGE OF CLASSES, AS SUGGESTED BY HOME ECONOMICS TEACHERS, AGRICULTURE TEACHERS, AND BOYS TAKING VOCATIONAL AGRICULTURE

Jobs or Items	Listed By		
	Home Ec. Teachers	Voc. Ag. Teachers	Boys
I. Foods			
1. Cooking			8
a. A Vegetable dinner			1
b. Pies and cakes			2
c. Make popcorn balls			1
d. Banana pudding			1
e. Light cooking			1
f. Meats			2
g. A simple meal	1	1	
2. Selection			
a. Importance of food selection			1
b. Choosing foods			1
c. Planning meals you don't tire of			1
d. Importance of keeping milk clean		1	
3. Refrigeration			
a. Bacteria in foods			1
4. Feeding the baby			1
II. Clothing			
1. Sewing			3
a. Simple mending	2		
b. Darning and patching	2		
c. Mending socks		1	
III. Home and Family			
1. Home			
a. Appreciation of home	1		
b. Family and home relationships	1		
c. Home beautification			2
d. Adjustment of family affairs			1
2. Home interior			
a. Wall finishes	1		
b. Floor finishes	1		
c. Color schemes	1		
d. Furniture arrangement	1		
e. Study of draperies	1		
f. Lighting in the home	1		1
g. Investments and savings in the home	1		
h. Selecting a house and furniture			1
i. Cleaning furniture			2
j. Cleaning silver			1
k. Cleaning house			1
l. Selecting furniture			1
m. Making up beds			3

TABLE VI (Continued)

ADDITIONAL JOBS, OR ITEMS, WHICH SHOULD BE INCLUDED IN SUBJECT MATTER TAUGHT TO VOCATIONAL AGRICULTURE BOYS IN THE EXCHANGE OF CLASSES, AS SUGGESTED BY HOME ECONOMICS TEACHERS, AGRICULTURE TEACHERS, AND BOYS TAKING VOCATIONAL AGRICULTURE

Jobs or Items	Listed By		
	Home Ec. Teachers	Voc. Ag. Teachers	Boys
n. Keeping things in place		1	
o. Importance of proper light, ventilation		1	
3. Child			
a. Origin of life	1		
b. Pregnancy	1		
c. Birth of a baby	1		
IV. Social and Personal			
a. Telephone courtesies	1		
b. Introductions	1	1	1
c. Being polite to ladies			1
d. How to escort a girl into a theater			1
e. How to meet people			5
f. Church etiquette			1
g. How to act in public			1
h. How to carry on a conversation			4
i. How to act at a party			1
j. When a boy dates a girl			1
k. Respecting girls			2
l. What to do and say when dating			2
m. Entertaining at parties			1
n. The kind of men women like as husbands			3
o. Courtesy to opposite sex; older people		1	
p. Acknowledgments		1	
q. How to overcome timidity		1	
r. Winning friends; influencing people			4
s. Developing a pleasing personality			1
t. How to speak properly			1
u. Appreciating good radio programs			5
v. Appreciating good picture shows			3
w. Care of teeth			1
x. How to improve posture			1
y. How to improve tone of voice			1
V. Poultry			
a. Dressing poultry		1	10
b. Dressing poultry and wild animals			1
VI. Recreational			
1. Community recreation			2
2. Selecting a hobby			1
3. Use of leisure time	4	1	4

Comparison of Grade and Group Differences in Ranking Jobs or Items

In Table V, 42 jobs or items for boys were evaluated by boys taking vocational agriculture in the four high school grades, and by teachers of vocational agriculture and home economics. Further study of this Table will show that the difference in rank between two groups for a particular item or job may be obtained by subtracting the rank assigned an item by one group from the rank assigned the same item by another group. By adding the differences between all 42 items and dividing by the number of items, or 42, the average difference between the two groups may be obtained for all items.

Table VII gives the average differences between each of the four grades in high school, between boys and teachers, and between teachers themselves in the ranking of the 42 jobs or items. From these differences, the agreements and disagreements of opinions regarding subject matter which should be taught boys by the home economics teachers may be noted.

TABLE VII

AVERAGE DIFFERENCE BETWEEN EACH OF THE FOUR GRADES IN HIGH SCHOOL, BETWEEN THE BOYS AND TEACHERS, AND BETWEEN THE TEACHERS THEMSELVES IN THE RANKING OF 42* JOBS OR ITEMS

Groups		Average Difference in Rank
I. The Four Grades in High School		
9th and 10th	2.1	
9th and 11th	3.0	
9th and 12th	4.0	
10th and 11th	2.0	
10th and 12th	3.1	
11th and 12th	2.5	
All Grades		2.78
II. Boys and Agriculture Teachers		5.50
III. Boys and Home Economics Teachers		7.30
IV. Agriculture and Home Economics Teachers		5.60

*For ranking of each item or job by groups, see Table V

In noting the agreements and disagreements between the different groups, one may observe that there is closer concurrence in opinions between the boys of the different grades than exists between either the boys and agriculture teachers, the boys and home economics teachers, or the agriculture and home economics teachers. The closest agreement is with the boys in successive grades. The average difference in rank for the 42 jobs, or items, between the ninth and tenth grades is only 2.1 places; between the tenth and eleventh grades 2.0 places, and between the eleventh and twelfth grades 2.5 places. The greatest difference between the grades is 4.0 places, which occurred between the ninth and twelfth grades. The average difference between all the groups was 2.78 places.

The boys and home economics teachers show the widest divergence of opinion, there being an average of 7.3 places difference. The boys and agriculture teachers disagreed in about the same proportion as did the home economics and agriculture teachers, there being 5.5 difference in the rank of jobs between the boys and agriculture teachers and 5.6 between the agriculture and home economics teachers.

The findings would indicate that the boys in the ninth, tenth, eleventh, and twelfth grades are more in accord as to what they feel should be taught them than are the teachers. It would also indicate that the most disagreement in the selection of subject matter would occur between the boys and home economics teachers than between any other two groups.

Analysis of Opinions of Teachers and Boys Relating to Subject Matter to be Taught Boys

In order to make a comparison of selection of subject matter by the boys as compared to the selection of subject matter by the teachers, based on opinions of boys' needs, sixteen jobs, or items, are selected which include the ten jobs ranked highest by the boys, the ten ranked highest by the agriculture teachers and the ten ranked highest by the home economics teachers. From this study, conclusions may be formed as to whether teachers are more capable of determining boys' needs than are the boys themselves.

In checking the items which each group would rank, according to their opinions, in the upper five, it is apparent that "good manners for every occasion," and "learning table etiquette" should be taught the boys. The close agreement between all groups as to the importance of these two items is evidenced by the fact that "good manners for every occasion" was checked as being important by every home economics teacher participating in this study, and by 96 per cent of the agriculture teachers, and by 87.7 per cent of the boys. "Learning table etiquette" was also checked by all home economics teachers, by 98 per cent of the agriculture teachers, and 84.3 per cent of the boys. The three other items which the boys would select are: camp cookery, administering first aid, and the study of a balanced diet for an invalid. The home economics teachers would include: importance of bathing and cleanliness, personal grooming, and duties of the host.

The agriculture teachers would include: responsibilities of men in the home, selection of food in relation to health, and the importance of bathing and cleanliness. It may be noted that the home economics teachers and agriculture teachers place considerable less emphasis on "camp cookery" and "what makes a balanced diet for an invalid" than do the boys.

In comparing the next five jobs which the boys would choose in comparison with the jobs which the teachers would choose, we find two fairly wide disagreements and three rather close agreements. The boys would place "caring for sick members of the family," and "problems of sanitation" in 6th and 9th ranks respectively. These items are ranked much lower in importance by the home economics teachers, ranking 32 and 21.5 respectively. The agriculture teachers would rank "caring for sick members of the family" in 21st rank, while "problems of sanitation" would rank 12.5, only 3.5 difference in the ranking by the boys. All three groups would include: responsibilities of the man in the home, selection of food in relation to health, and the importance of bathing and cleanliness. The home economics teachers and agriculture teachers would both include "color and color schemes in men's dress" in the upper ten, while the boys ranked it 11, which shows close agreement on this job. "Personal grooming" was ranked in the upper ten jobs by both groups of teachers and was ranked 12th by the boys--a very close agreement. "Carving and serving at the table" was considered of much more importance by the teachers than by the boys. The teachers ranked it 9th, while the boys ranked it in 24th position. The job which showed

the greatest difference was "sewing on buttons" which was ranked in the upper ten by the home economics teacher, 32nd by the agriculture teachers, and 38th by the boys. "Sewing on buttons" was checked by 93.7 per cent of the home economics teachers, 48.8 per cent of the agriculture teachers, and 34.1 per cent of the boys. "Caring for sick members of the family" was checked by 60.9 per cent of the home economics teachers, 67 per cent of the agriculture teachers and 71.8 per cent of the boys.

The writer presented the ten jobs selected by the boys, the ten selected by agriculture teachers, and the ten selected by home economics teachers, to three home economics teachers to choose the list which they thought would be the most practical to teach boys. Without any knowledge as to who selected each group, all teachers selected the ten jobs chosen by the boys as being most practical. These teachers were asked to give their reasons why the home economics teachers had selected such topics as: duties of the host, carving and serving at the table, and sewing on buttons, instead of: first aid, health and sanitation, and camp cookery. They thought that some of the reasons might be:

1. Home Economics teachers are selfish in their teaching. Probably they have been embarrassed at one time or another by a man's improper dress or by his poor manners.

2. Most of the teachers use the course outlines given in text books.

3. Some teachers are better qualified to teach some of these jobs, or topics, than they are to teach others.

4. Some of us do not know the real needs of the boys.

TABLE VIII

COMPARATIVE RANKINGS ASSIGNED TO SIXTEEN ITEMS, OR JOBS* BY BOYS, HOME ECONOMICS TEACHERS AND AGRICULTURE TEACHERS

Jobs or Items	Rank Given Jobs or Items By		
	Boys	Home Ec. Teachers	Agri. Teachers
Good manners for every occasion	1	1.5	2
Camp cookery	2	16	15.5
Learning table etiquette	3	1.5	1
Administering first aid	4	12.5	7
A Balanced diet for an invalid	5	14.5	12.5
Caring for sick members of the family	6	32	21
Responsibility of the man in the home	7	6.5	3
Selecting food in relation to health	8	6.5	4
Problems of sanitation	9	21.5	12.5
Importance of bathing and cleanliness	10	4	5
Color and color schemes in men's dress	11	9	8
Personal grooming	12	4	6
How to select choice cuts of meat	13	29	9.5
Duties of the host	16	4	11
Carving and serving at the table	24	9	9.5
Sewing on buttons	38	9	32

*The jobs, or items, are taken from Table V, and include the ten jobs ranked highest by either the boys, home economics teachers or agriculture teachers.

It is evident that there is a similarity of opinion concerning both the jobs to teach and those to omit, or else to teach late in the course, judging from the listing by the vocational agriculture and home economics teachers and high school boys. Among those jobs, or items, which were ranked below 20 by all groups in Table V are: food costs, cleaning one's clothes, appreciating good books and pictures, making candy, caring for young children, how to prepare meals for an invalid, study of textiles, appreciating convenient rooms, kitchen planning and arrangement, floor plans for a house, refrigeration, the time element in food preparation, washing dishes, a course for a caterer, and making laundry bags. This last job mentioned, "making laundry bags" was checked as a subject to be taught the boys by only 9.3 per cent of the home economics teachers, by 16.5 per cent of the agriculture teachers and by only 14.7 per cent of the boys.

The low ranking given to some of the jobs is not altogether an accurate one, if we compare the ratings on a percentage basis. The home economics teachers checked a much larger per cent of the jobs than did either the agriculture teachers or boys. There were eleven jobs checked by over 90 per cent of the home economics teachers, while only two jobs were checked by 90 per cent of the agriculture teachers and no job was checked by 90 per cent of the boys. There were 22 jobs checked by over 80 per cent of the home economics teachers, eight by the agriculture teachers and two by the boys. The number of jobs checked by 70 per cent or more were: 31 by the home economics teachers; 16 by the agriculture teachers, and eight by the boys. About half the

jobs were checked as important by 50 to 60 per cent of the boys, 60 to 70 per cent of the agriculture teachers, and by 80 per cent of the home economics teachers.

All three groups agreed that "good manners for every occasion," and "learning table etiquette" should be two of the first three items taught boys by the home economics teachers. The boys gave "camp cookery" a higher rank than was given by either group of teachers. Six of the first ten items listed by boys deal with problems of health, including first aid and sanitation. Most of these items were ranked much lower by the two groups of teachers. The home economics teachers included two of these items on health in the upper group of ten items, while the agriculture teachers included three of the items. The home economics teachers put "sewing on buttons" in the upper ten items to be taught boys. The agriculture and home economics teachers thought that boys should know how to carve and serve at the table. Both of these items were ranked lower by boys than by agriculture and home economics teachers. All groups thought that "personal grooming" and "color and color schemes in men's dress" should be taught boys by the home economics teachers.

Grade Differences in Subject Matter to be Taught Boys as Determined by Opinions of Boys

In order to determine if desirable course content could be assigned grade placement on the basis of pupils' opinions concerning their needs, a comparison was made in Table V of the rankings of the 42 jobs by the ninth, tenth, eleventh, and twelfth grade boys. In 32 of the 42 jobs, or items, there was no consistency in the uniformity of ascending or descending rank from the ninth to the twelfth grade. The other ten jobs which showed consistency in ascending or descending rank had an average difference in rank of only 7.3 places, the same difference that exists in the ranking of the 42 jobs by the home economics teachers and agriculture boys.

Referring again to Table V, which has been previously shown, four jobs were given a higher rank by the ninth grade boys and consistently lower rank through the twelfth grade. These jobs are: pressing one's clothes, storing food, cleaning one's clothes, and care and selection of kitchen utensils. It is felt that the older groups are less interested in cleaning and pressing clothes, since it is likely that more of them have their cleaning and pressing done at some dry-cleaning establishment than do the ninth or tenth grade boys.

The older boys seemed to be concerned more with certain duties relating to the house and home. Six of the 42 jobs or items received a higher rank by the twelfth grade boys and consistently lower rank through the ninth grade. These six jobs are: duties of the host, budgeting incomes, food costs, hotel menus, appreciating convenient rooms, and the time element in food preparation.

While there are ten jobs, or items, which show consistent uniformity in ascending or descending rank between the four grades, this does not seem to justify that items could be assigned grade placement on the basis of the boys' opinions. It may be noted from Table V that not a one of these ten jobs was ranked in the upper ten by either the ninth, tenth, eleventh, or twelfth grade boys. It may also be noted that the first twelve jobs which ranked highest by all boys would include all of the ten jobs ranked highest by all four grades. This shows a close agreement on selection of the first twelve jobs by the four grades. The job "personal grooming" which was ranked in the eighth place by the twelfth grade boys was ranked fifteenth by the ninth grade, a difference in rank of seven places, the widest difference existing between any grade for the first twelve jobs. The widest difference for any job in the entire 42 is 21 places for the job "making candy" which was ranked eighteenth by the tenth grade boys and thirty-ninth by the ninth grade.

Comparison of Content As Selected by Boys With Content Taught by Home Economics Teachers

From Tables IV and V, a further comparison is made between the subject matter which it has been customary for the home economics teachers to use in their work with boys, and the subject matter selected by the boys themselves. From Table IV we see that some phase of manners or etiquette was taught by 27 of the 31 teachers reporting. The two jobs "good manners for every occasion" and "learning table manners" were ranked first and third respectively by the boys, which shows a very close concurrence of thought on these two items.

The topic ranked second by the teachers is "clothing, its selection and care," with 26 of the 31 teachers having taught some phase of this subject. The topic, "selection of clothing" was taught by 13 teachers, while "personal grooming" was taught by 11 teachers. The boys placed "color and color schemes in men's dress" and "personal grooming" in 11th and 12th places respectively; however, "personal grooming" was tied for eighth place by the 12th grade boys. The boys placed the items "foods and nutrition" and "health and first aid" ahead of items relating to clothing. They also placed "camp cookery" and "administering first aid" in second and fourth places; this ranking indicates that the boys felt a personal need for instruction on this subject, as might be expected of boys of camping and Boy Scout age.

A rather surprising fact is that the boys placed so much emphasis on the items relating to health, while this topic was neglected by most of the teachers. Six of the first ten items selected by the boys pertain to health. Besides the one, "first aid" are the items: a balanced diet for an invalid; selection of food in relation to health; importance of bathing and cleanliness; caring for sick members of the family, and problems of sanitation. It is possible that the teachers of home economics might consider the agriculture teachers better qualified to teach "first aid." This might be true in some cases; therefore, subject matter should be taught by the one qualified to do the teaching, where a joint program is used. It is apparent from this study that boys desire information regarding first aid and health, and that they place more emphasis on these items than do the home economics teachers.

While there are only a few items listed on personal and home relationships, we find that the boys gave the topic, "responsibilities of the man in the home" seventh place. They also named 22 other items which might be classed under this heading, and which are shown in Table VI. These 22 items were listed by the boys in addition to those contained in the questionnaire sent to them, and in their opinion should be included in the subject matter taught by home economics teachers in the exchange of classes. Each of the following items was listed by more than one boy: how to win friends and influence people; the ability to carry on a conversation; the kind of men women like as husbands; respect for girls, and what to do and say when dating. It is apparent that teachers of home economics feel that boys should be taught something about personal and group relationships, since 10 of the 31 home economics teachers listed items relating to this subject which they have taught.

While it is felt that home economics teachers have included essential items in the subject matter taught to boys in the exchange of classes, this study indicates that boys have certain immediate felt needs, which should be considered by the teachers in their selection of course content.

Agriculture for Girls

Subject Matter Taught by Agriculture Teachers to Girls in the Exchange of Classes

Table IX lists under 14 main headings the items which were taught to girls in the exchange of classes prior to June 1938 by 52 teachers of agriculture. Items relating to home beautification were taught by 43 of the teachers, or 86.5 per cent, while items relating to poultry ranked second and were taught by 26 teachers, or 50 per cent. Gardening was taught by 20 teachers, 38.4 per cent of the teachers reporting, and farm mechanics by eight, or 15.3 per cent. The rest of the enterprises listed by the teachers were taught by less than ten per cent of the teachers reporting, and rank in the following order: dairying, electricity, home orchards, and wild life. The following subjects were taught by only one teacher: how to cure meats; safety--fire protection in the home and on the farm; parliamentary law; breeding of animals, and the importance of soil conservation as related to farm and home conditions. The four items on home conveniences and sanitation listed under "Home--Miscellaneous" in Table IX were taught by five teachers, or 9.6 per cent of the total.

TABLE IX

LIST OF AGRICULTURAL JOBS OR ITEMS TAUGHT THE GIRLS BY 52 AGRICULTURE TEACHERS IN TENNESSEE PRIOR TO JUNE 1938, AND THE NUMBER OF TEACHERS REPORTING TEACHING EACH JOB

	Job or Item Taught	Number Teachers Reporting
I.	Home Beautification	43
1.	Home beautification (As enterprise or unit)	19
2.	Landscape gardening (As enterprise or unit)	18
3.	Growing flowers	9
4.	Selection of shrubs for planting	7
5.	Planting and care of shrubbery	7
6.	Selection of shade trees for home grounds	5
7.	Planting and care of the lawn	5
8.	Propagation of shrubbery	4
9.	Identification of shrubbery	4
10.	Setting and care of trees	4
11.	Arrangement and materials for walks and drives	3
12.	Identification of trees	2
13.	Procuring shrubs, trees and vines for planting	1
14.	Growing roses	1
15.	Arrangement and planting of annual flowers	1
16.	Uses of shrubs for screen and foundation plantings	1
17.	Removing unsightly objects	1
18.	Painting the house	1
II.	Poultry	26
1.	Poultry (As enterprise)	10
2.	Brooding	8
3.	Culling	8
4.	Feeding for egg production	8
5.	Incubating	5
6.	Feeding and care of baby chicks	5
7.	Selection and care of hatching eggs	3
8.	Selection of breeds	2
9.	Housing	1
10.	Control of insects and diseases	1
III.	Gardening	20
1.	Growing a home vegetable garden	13
2.	Planning a year-round garden	6
3.	Controlling insects and diseases	3
4.	Hotbeds and coldframes	1
IV.	Farm Mechanics	8
1.	Refinishing furniture	3
2.	Uses of paints, whitewashes and varnishes	2
3.	Reseating chairs	2
4.	Simple farm shop jobs (Jobs not listed)	2

TABLE IX (Continued)

LIST OF AGRICULTURAL JOBS OR ITEMS TAUGHT THE GIRLS BY 52 AGRICULTURE TEACHERS IN TENNESSEE PRIOR TO JUNE 1938, AND THE NUMBER OF TEACHERS REPORTING TEACHING EACH JOB

	Job or Item Taught	Number Teachers Reporting
5.	Woodwork (Jobs not listed)	1
6.	Making stools, flower boxes, etc	1
7.	How to drive nails	1
8.	Selection and use of wood fillers	1
9.	Making bookends and racks	1
10.	Making furniture	1
11.	Repairing furniture	1
12.	Repairing household equipment	1
13.	Tools and their uses	1
14.	Study of wood materials for furniture	1
15.	Soldering holes in pans	1
16.	Sharpening knives and scissors	1
17.	Planning a water system for the kitchen	1
V.	Home (Miscellaneous)	5
1.	Controlling household pests	3
2.	Screening house	2
3.	Home conveniences	1
4.	Use of proper type garbage cans	1
VI.	Dairying	5
1.	Selecting a good dairy cow	2
2.	Handling of milk and butter	1
3.	Production of clean milk	1
4.	Breeding and management of dairy cows	1
5.	Producing the home milk supply	1
VII.	Electricity	4
1.	Uses in the home	1
2.	Repairing equipment	3
VIII.	Home Orchards	3
1.	Growing fruit for home use	3
2.	How to bud and graft fruit trees	1
IX.	Wild Life	2
1.	Study of local wild birds	1
2.	Study of local wild animals	1
X.	Curing Meats	1
XI.	Safety; Fire Protection in the Home and on the Farm	1
XII.	Parliamentary Law	1
XIII.	Animal Breeding	1
XIV.	Soil Conservation, Importance of as related to farm and home conditions	1

The items which were taught by more teachers than any other items under home beautification were: the growing of flowers, and the care of shrubbery. More teachers taught the brooding and culling of poultry, and feeding for egg production than any other items about poultry. Minor emphasis was placed on the items: feeding and care of baby chicks, incubating and selecting hatching eggs, and the control of insects and diseases of poultry. Of the six teachers who taught some phase of gardening, one taught about hotbeds and coldframes; three, the controlling of insects and diseases, and all six taught the planning of a year-round garden. Eight teachers taught a total of 17 miscellaneous farm mechanics jobs, with only three of the jobs being taught by as many as three different teachers. These three jobs were: refinishing furniture; uses of paints, whitewash and varnishes; reseating chairs.

From this data, it appears that prior to June 1938, the majority of agriculture teachers in the high schools of Tennessee taught agricultural items to girls in the following order: home beautification, poultry, gardening, farm mechanics, and dairying. The above items were taught by more than 10 per cent of the teachers. The following items were taught by less than 10 per cent: electricity, home orchards, controlling of household pests, home conveniences and sanitation, wild life, curing of meats, safety, parliamentary law, breeding of animals, and soil conservation.

Table X gives the rankings assigned to 50 agricultural items contained in the check list in the questionnaires[4] sent to 1,629 high school girls, 103 agriculture teachers and 64 home economics teachers participating in this study. The participants were asked to check the items which they thought should be taught by the agriculture teacher to high school girls in the exchange of classes. The check lists were tabulated and each item ranked according to the number of times checked by the girls and their teachers, the highest rank, or rank 1, being given to the item most frequently checked. This is the same procedure that was used in determining the ranking of jobs checked by the agriculture boys and their teachers.

There are some indications that the home economics and agriculture teachers stress the importance of agriculture for girls more than do the girls themselves. By calculation, it is found that 63.3 per cent of both the home economics and agriculture teachers checked 25 items, or one-half of the number included, while only 53 per cent of the girls checked one-half of the items as being important. There are likewise higher ranks assigned to certain items by both the home economics and agriculture teachers than are assigned by the girls. "Home beautification" was checked by 95.3 per cent of the home economics teachers, and by 89.5 per cent of the girls. "Growing flowers" was checked by 91.1 per cent of the home economics teachers, and by 86.6 per cent of the girls. These two items were checked by a larger percentage of both home economics teachers and high school girls than any other item or items.

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4. See Appendix for Questionnaire Forms II and III.

TABLE X

SUMMARY OF RANKINGS OF 50 JOBS AS INDICATED BY HIGH SCHOOL GIRLS, TEACHERS OF VOCATIONAL AGRICULTURE AND TEACHERS OF HOME ECONOMICS

Jobs or Items	Rank by Percentages					
	1,629 Girls	Per Cent of Total	103 Ag. Teachers	Per Cent of Total	64 H. E. Teachers	Per Cent of Total
Growing of flowers	1	89.5	8.5	81.3	2	91.1
Home beautification	2	86.6	5.5	84.3	1	95.3
Watering plants; Importance of water and how to water flowers	3	80.3	16	72.5	8.5	81.2
How to grow vegetables in the home garden	4	77.5	7	83.3	6.5	84.3
Planning a year-round garden	5	73.4	3	88.2	6.5	84.3
Planting and care of the lawn	6	72.1	4	87.2	4.5	85.9
How to clean wallpaper	7	69.1	23	66.6	25	64
How to control insects and diseases in the farm garden	8	68.8	12.5	78.4	10	79.6
Production of clean milk on farm	9	67.8	12.5	78.4	18.5	68.7
Pruning and caring for shrubbery	10	66.6	10.5	79.4	11	78.1
Making a flower box, or some simple article, with carpenter tools	11	66.4	35	50.0	8.5	81.2
Making butter on the farm	12	65.8	23	66.6	18.5	68.7

TABLE X (Continued)

SUMMARY OF RANKINGS OF 50 JOBS AS INDICATED BY HIGH SCHOOL GIRLS, TEACHERS OF VOCATIONAL AGRICULTURE AND TEACHERS OF HOME ECONOMICS

Jobs or Items	Rank by Percentages					
	1,629 Girls	Per Cent of Total	103 Ag. Teachers	Per Cent of Total	64 H. E. Teachers	Per Cent of Total
Uses and application of paints, varnishes, enamels, etc.	13	64.0	17	70.5	14	73.4
Incubation, and Brooding baby chicks	14	63.7	8.5	81.3	16.5	70.3
Feeding for egg production	15	63.2	1	91.3	12	75.0
Identification, uses and propagation of common shrubs	16	60.8	19	69.6	3	87.5
Growing of fruit for home use	17	59.7	39	43.1	41	40.6
Handling eggs for high quality	18	58.8	14	75.4	25	64.0
Identifying, and determining suitability of shade trees for home grounds	19	58.4	15	73.5	14	73.4
Control of insects and diseases of poultry	20	58.3	2	89.2	30	59.3
Refinishing old floors	21	58.2	19	69.6	14	73.4
Family and home relationships	22	58.1	34	50.9	33	54.6
General repair of furniture, screens, doors, etc.	23	58.0	43	37.7	16.5	70.3
Setting of and caring for shade trees	24	57.2	26	65.6	36	51.5
Sharpening knives and scissors	25	56.9	19	69.6	28.5	60.9

TABLE X (Continued)

SUMMARY OF RANKINGS OF 50 JOBS AS INDICATED BY HIGH SCHOOL GIRLS, TEACHERS OF VOCATIONAL AGRICULTURE AND TEACHERS OF HOME ECONOMICS

Jobs or Items	Rank by Percentages					
	1,629 Girls	Per Cent of Total	103 Ag. Teachers	Per Cent of Total	64 H. E. Teachers	Per Cent of Total
Determining the importance of poultry on the farm	26	56.5	10.5	79.4	25	64.0
Value, and cost of electricity in the home	27	55.6	28	60.7	25	64.0
How to paper a room	28	53.2	31.5	52.9	36	51.5
Objectives in cultivating crops, gardens and flowers	29	51.9	38	44.1	36	51.5
Calculating amount of paper needed to paper a room	30	51.8	23	66.6	28.5	60.9
Fixing broken lamp cords, fuses, and minor electrical equipment	31	51.5	26	65.6	4.5	85.9
Study of poultry houses and equipment	32	47.2	21	68.6	36	51.5
Making an ideal seed bed for crops, gardens, etc.	33	46.9	41	41.1	43.5	37.5
Soldering utensils	34	46.7	44.5	33.3	31.5	56.2
Culling the poultry flock	35	45.1	5.5	84.3	25	64.0
Advantages and disadvantages of farm life	36	44.1	26	65.6	20.5	67.1
How to control insects and diseases in the home orchard	37	41.8	44.5	33.3	45	35.9
Farm sanitation needed in growing live-stock and poultry	38	40.2	30	53.9	39	48.4

TABLE X (Continued)

SUMMARY OF RANKINGS OF 50 JOBS AS INDICATED BY HIGH SCHOOL GIRLS, TEACHERS OF VOCATIONAL AGRICULTURE AND TEACHERS OF HOME ECONOMICS

Jobs or Items	Rank by Percentages					
	1,629 Girls	Per Cent of Total	103 Ag. Teachers	Per Cent of Total	64 H. E. Teachers	Per Cent of Total
How to select a good dairy cow	39	39.9	47	27.4	43.5	37.5
Feeding and care of the dairy cow	40	39.1	46	31.3	40	45.3
Appreciating farm life and farmers' problems	41	38.8	29	57.8	22	65.6
Fertilizers for orchard and garden	42	35.7	33	51.9	42	39.0
Making, uses for, and application of whitewash	43	35.4	40	42.1	36	51.5
Simple farm accounting	44	34.6	31.5	52.9	31.5	56.2
Planning a year-round home orchard	45	34.0	42	40.1	47	26.5
Soil conservation and its relationship to improving farm and home conditions	46	32.7	36.5	45.1	46	28.1
How to propagate grapes	47	27.9	36.5	45.1	49	21.8
Repairing faucets	48	26.9	48	22.5	20.5	67.1
How to graft and bud fruit trees	49	26.0	49	13.7	50	10.9
Survey of farming conditions as they exist in own county	50	21.8	50	9.8	48	25.0

Table XI gives listings by girls, agriculture teachers and home economics teachers of jobs or items which they thought should be taught to girls by the agriculture teacher and which were additional to those listed in the questionnaires[5] sent to them.

The items or jobs are grouped under twenty-five main headings: ceramics; dairying; farm buildings; farm machinery; farm mechanics; fencing; field crops (miscellaneous); fishes; flowers; forestry; gardening; home (subdivided into sanitation and health, incomes, relationships, and miscellaneous); law; livestock (miscellaneous); measuring land; meats; mechanical drawing; orcharding; pets; poultry; soils; swine; wildfire; workstock, and veterinary.

Of the ninety items listed under these main headings, 66 were listed by the girls only, 19 by the agriculture teachers only, and one by the home economics teachers only.

While no item was checked by as large a percentage of girls as were certain items by home economics and agriculture teachers, it is also true that no item was checked by as low a percentage of girls as were certain items by home economics and agriculture teachers. This might suggest that the items ranked low by either or both groups of teachers were important to some of the girls. No item was checked by less than one-fifth of the girls while one item was checked by only 9.8 per cent of the agriculture teachers and one was checked by only 10.9 per cent of the home economics teachers.

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5. See Appendix for Questionnaire Forms II and III.

TABLE XI

ADDITIONAL JOBS, OR ITEMS, WHICH SHOULD BE INCLUDED IN SUBJECT MATTER TAUGHT TO HOME ECONOMICS GIRLS IN THE EXCHANGE OF CLASSES, AS SUGGESTED BY HOME ECONOMICS TEACHERS, AGRICULTURE TEACHERS, AND GIRLS TAKING HOME ECONOMICS

Jobs or Items	Listed By		
	H. S. Girls	Voc. Ag. Teachers	Home Ec. Teachers
Ceramics			
1. Making simple things out of concrete	11		
2. Treating decayed trees with concrete	7		
3. How to mix concrete	1		
Dairying			
1. How to milk a cow	19		
2. Cleaning dairy barns	1		
Farm Buildings			
1. Caring for run-down barns	1		
2. How to build farm houses	1		
3. How to build houses	1		
Farm Machinery			
1. Study of farm implements	2		
2. How to operate a tractor	1		
Farm Mechanics			
1. Shop work	9		2
2. Use of common shop tools	1		
3. How to make simple lawn furniture	1		
4. How to build a bird house	1		
5. How to make stools, tables, etc.	1		
6. Making tools for the house	1		
7. How to make a play house	1		
8. Construction and selection of furniture	1		
9. Making handles for farm tools	1		
10. Refinishing old furniture		1	
11. Refinishing old pictures		1	
12. Making small pieces of furniture		1	
13. Construction and selection of furniture		1	
14. Polishing varnished pieces with pumice and oil		1	

TABLE XI (Continued)

ADDITIONAL JOBS, OR ITEMS, WHICH SHOULD BE INCLUDED IN SUBJECT MATTER TAUGHT TO HOME ECONOMICS GIRLS IN THE EXCHANGE OF CLASSES, AS SUGGESTED BY HOME ECONOMICS TEACHERS, AGRICULTURE TEACHERS, AND GIRLS TAKING HOME ECONOMICS

Jobs or Items	Listed by H. S. Girls	Voc. Ag. Teachers	Home Ec. Teachers
Fencing			
1. How to build a yard fence	1		
Field Crops (Miscellaneous)			
1. Storage of potatoes in the summer	1		
2. Time to plant crops	1		
3. How to hoe corn	1		
Fish			
1. How to make a fish pond	1		
2. How to care for goldfish	1		
Flowers			
1. Flower garden arrangement	23		
2. Planning a window garden	19		
3. Transplanting flowers	16		
4. Care of pot plants	16		
5. Selection of flowers for the yard	4		
6. Identification of flowers	3		
7. How to make a rock garden	1		
8. Selection of flowers for year round blooming	1		
9. Selection of flowers for porch			1
Forestry			
1. Reforestation	5		
Gardening			
1. Marketing garden surpluses		1	
2. Storing fruits and vegetables in winter	9		
Home (Sanitation and Health)			
1. Rat and mice control	13		
2. Home sanitation		1	
3. Control of insects and pests		1	

TABLE XI (Continued)

ADDITIONAL JOBS, OR ITEMS, WHICH SHOULD BE INCLUDED IN SUBJECT MATTER TAUGHT TO HOME ECONOMICS GIRLS IN THE EXCHANGE OF CLASSES, AS SUGGESTED BY HOME ECONOMICS TEACHERS, AGRICULTURE TEACHERS, AND GIRLS TAKING HOME ECONOMICS

Jobs or Items	Listed by		
	H. S. Girls	Voc. Ag. Teachers	Home Ec. Teachers
Home (Incomes)			
1. Budgeting time and money	1		
Home (Relationships)			
1. How to be a good farmer's wife	1		
Home (Miscellaneous)			
1. Washing and shining windows	1		
2. Filling old wells and cisterns	1		
3. Home conveniences	1		
4. Selecting site for a home	1		
Law			
1. Commercial law	1		
Livestock (miscellaneous)			
1. Selection of various kind of livestock	7		
2. Care of livestock	1		
3. Learning the common breeds of poultry, beef cattle, sheep, hogs, dairy cows		1	
Measuring Land			
1. How to measure land	13		
Meats			
1. How to cure meats	1		
Mechanical Drawing			
1. Designing and planning a home	1		
2. Drawing plans for home, ground improvement and garden		1	
3. Determining principles of landscape designing		1	
Orcharding			
1. Estimating value of orchards on farm		1	

TABLE XI (Continued)

ADDITIONAL JOBS, OR ITEMS, WHICH SHOULD BE INCLUDED IN SUBJECT MATTER TAUGHT TO HOME ECONOMICS GIRLS IN THE EXCHANGE OF CLASSES, AS SUGGESTED BY HOME ECONOMICS TEACHERS, AGRICULTURE TEACHERS, AND GIRLS TAKING HOME ECONOMICS

Jobs or Items	Listed by H. S. Girls	Voc. Ag. Teachers	Home Ec. Teachers
Pets			
1. Training and caring for dogs and cats	1		
2. Caring for pets	1		
Poultry			
1. Setting a hen	6		
2. Selecting and feeding baby chicks	5	1	
3. Showing poultry	1		
4. Breeds of poultry; characteristics	1	1	
5. Construction of a poultry house		1	
6. Judging poultry		1	
7. Incubation and brooding		1	
8. Caponizing		1	
Soils			
1. Recognition and treatment of poor soils	1		
2. Determining type of soil adapted to certain vegetables	1		
3. Types of soils	1		
4. Testing soils by observation	1		
Swine			
1. How to take care of hogs	2		
2. Selecting a hog	1		
Wild life			
1. How to care for birds	1		
2. Identification of birds	1	1	
3. Birds	1		
4. Conservation of wild life	1	2	
5. Identification of wild flowers		1	
6. Identification of wild animals		1	
7. Poisonous snakes of our country	1		
8. Snakes and frogs	1		
9. Appreciating nature and beauty		1	
Workstock			
1. Caring for workstock (principally horses)	20		
2. Know about horses	3		
3. Care of stables	1		
4. Grooming horses	1		
Veterinary			
1. Doctoring sick animals	1		

In Table XI, the jobs as selected by five or more girls are as follows: flower garden arrangement; caring for horses, workstock; planning a window garden; how to milk a cow; transplanting flowers; care of pot plants; rat and mice control; how to measure land; making simple things out of concrete; storage of fruits and vegetables in winter; shop work; treating decayed trees with concrete; selection of various kinds of livestock; setting a hen; reforestation, and selecting and feeding baby chicks.

In summarizing, it seems that the agriculture and home economics teachers place more emphasis on certain items than do the girls, but no item is as relatively unimportant as checked by the girls in comparison to the lowest items checked by either group of teachers.

The girls selected four times more additional items than the agriculture teachers, and 66 times more than the home economics teachers. The items selected by the girls showed added interest in the growing of flowers—principally flower garden arrangement, planning a window garden, transplanting flowers and care of pot plants. They desired to know how to care for horses and workstock, how to milk a cow, how to control mice and rats, and how to make things out of concrete. From four to ten girls listed the selection of livestock, setting a hen, reforestation, and selecting and feeding baby chicks.

Analysis of Opinions of Agriculture and Home Economics Teachers and Girls in Evaluating Agricultural Enterprises and Items to be Taught Girls

In order to compare the opinions of girls with the opinions of their teachers, and the opinions of agriculture teachers with those of home economics teachers as to the evaluation of the items listed in Table X, these items are listed under specific enterprises. The subjects taught the girls by the 52 agriculture teachers prior to this study are also compared with the subjects selected by the girls and teachers. The ranking of each item under each separate enterprise represents the ranking by 1,629 girls, 103 agriculture teachers, and 64 home economics teachers.

Table XII gives the ranking of eight poultry jobs as they were evaluated by girls, agriculture teachers and home economics teachers. We note that the agriculture teachers rank the items higher than either the girls or home economics teachers. Five of the eight jobs are included in the high ten rank by the agriculture teachers, while no job is ranked above twelfth place by either the home economics girls or teachers, who are agreed that poultry is a relatively unimportant enterprise for the girls to study. The agriculture teachers would teach "feeding for egg production" as the first job, and "control of insects and diseases" as the second. Other jobs ranking in the upper ten by the agriculture teachers are: culling the poultry flock, incubation and brooding baby chicks, and determining the importance of poultry on the farm.

While "feeding for egg production" was the job ranked highest among the poultry jobs by both the home economics teachers and girls, it was given a rank of 12 and 15 respectively by the two groups. The remaining seven poultry items ranked from 14th to 39th place by both the home economics teachers and girls. All of the groups put the following items in a low rank: study of poultry houses and equipment, and farm sanitation needed in the growing of livestock and poultry. One of the noticeable disagreements is regarding the item, "culling poultry." The agriculture teachers gave this item a rank of 5.5; the home economics teachers ranked this item 25, and the girls ranked it 35. It may also be noted that this item was checked as important by 84.3 per cent of the agriculture teachers; by 64 per cent of the home economics teachers, and by 45.1 per cent of the girls.

A comparison of the average difference in rank of the eight poultry jobs shows a very close agreement between teachers of home economics and the girls, with only 1.5 places difference in their evaluation of these items. Less difference exists between the opinions of the girls and agriculture teachers than between the opinions of the home economics and agriculture teachers, with a difference of 13 and 14.5 places respectively.

Further evidence that agriculture teachers feel that girls should study items relating to poultry is the fact that one-half of the teachers participating in this study, and who exchanged classes with the home economics teachers, taught girls items relating to poultry.

TABLE XII

RANK OF POULTRY JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
Feeding for egg production	15	1	12
Control of insects and diseases of poultry	20	2	30
Culling the poultry flock	35	5.5	25
Incubation and brooding of baby chicks	14	8.5	16.5
Determining importance of poultry on farm	26	10.5	25
Handling eggs for high quality	18	14	25
Study of poultry houses and equipment	32	21	36
Farm sanitation needed in growing poultry	38	30	39
Average rank	24.5	11.5	26

While a large percentage of agriculture teachers think that certain poultry jobs should be taught to girls first, as was shown in Table XII, the information given in Table IX shows that actually only 26 of the 52 agriculture teachers reporting taught items relating to poultry. Of the 52 agriculture teachers reporting on home beautification, 43 included some phase of this enterprise in their classes for girls. Again referring to Table IX, "home beautification" as a unit was taught by 19 of the agriculture teachers; landscape gardening by 18; growing flowers by nine; selecting, care and planting of shrubbery by seven; while 13 other jobs regarding shade trees, lawns, shrubbery, flowers and paints were taught by from one to five.

Table XIII suggests that both the teachers of home economics and the girls themselves would choose "home beautification" and "growing of flowers" as the first two high ranking items to be taught girls. These two items are ranked among the upper ten items by the agriculture teachers. All three groups rank "planting and care of the lawn" in the upper six items. "Identification, uses and propagation of common shrubs" is ranked third by the home economics teacher, 16th by the girls, and 19th by the agriculture teachers. "Watering plants" would be taught in the upper ten items as ranked by the teachers of home economics and girls but would be placed 16th by the agriculture teachers. All three groups rank "identifying shade trees and determining suitability of shade trees for the home grounds" above "setting and caring for shade trees."

Additional evidence is shown in Table XI that girls have a desire to learn about home beautification. Eight separate jobs, in addition to

those listed in Table XIII, were listed about flowers. Twenty-three girls wanted to know how to arrange a flower garden; 19 wanted to know how to plan a window garden, and 16 desired information on how to transplant flowers and take care of pot plants. Four girls wanted information on the selection of flowers for the yard; three wanted information on identification of flowers while only one girl wanted to know how to make a rock garden. Here we see that individual needs arise in the pupils' minds about which the teacher is unmindful or unaware.

The opinions of the home economics girls and the home economics teachers relating to home beautification for girls show closer agreement than do the opinions of the agriculture teachers and the girls, or agriculture and home economic teachers. The girls and home economics teachers tie in their average ranking of the eight items listed under "home beautification," while the difference as ranked by the agriculture teachers is three places higher.

In summarizing the importance of home beautification for girls we find all groups agree that girls should be taught about the beautification of the home and home grounds. The home economics teachers and girls agree more closely as to the average job to be taught than do girls and agriculture teachers or agriculture and home economics teachers. The three groups seem more interested in girls knowing the names of shade trees and where they are located than in being able to set and care for them. While a larger percentage of agriculture teachers agree that poultry jobs for girls are the most important to be taught, they teach more items relating to home beautification than jobs pertaining to poultry.

TABLE XIII

RANK OF HOME BEAUTIFICATION JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THE STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
Home beautification (as an enterprise)	2	5.5	1
Growing flowers	1	8.5	2
Planting and care of the lawn	6	4	4.5
Identification, uses and propagation of common shrubs	16	19	3
Watering plants; importance of water, and how to water flowers	3	16	8.5
Pruning and caring for shrubbery	10	10.5	11
Identifying shade trees; determining suitability for home grounds	19	15	14
Setting, and caring for shade trees	24	26	36
Average rank	10	13	10

The home vegetable garden ranked third as an enterprise taught girls by the agriculture teachers. Twenty of the 52 teachers reporting (Table IX) said that they had taught some phase of home gardening. Of this group 13 taught general subject matter about growing a home vegetable garden; three taught about the control of insects and diseases; while only one taught about hotbeds and coldframes.

Table XIV gives the rankings by teachers and girls of six garden jobs taken from Table X. Essentially three of these jobs or items would be included in a list of ten jobs selected collectively by home economics teachers, agriculture teachers and home economics girls, namely: (1) how to grow vegetables in the home garden, (2) planning a year round garden and (3) controlling insects and diseases in the home garden. The three items dealing with cultivation, fertilization, and seed bed preparation were rated low by all groups, ranging from 29 to 43.5. In the additional items which were suggested in Table XI, nine of the girls thought they should know how to store fruits and vegetables in winter, while one agriculture teacher suggested the need for a knowledge of marketing the garden surplus.

The home economics girls placed a little more importance on the jobs related to gardening than any other group, ranking the six jobs on an average of 2.3 places higher than the agriculture teachers, and 4.0 places higher than the home economics teachers. There seems to be rather close agreement between all three groups as to the importance or unimportance of each job. The widest difference in the average ranking of the six items is four places between the girls and home economics teachers.

Thus we see very close agreement between all three groups in ranking garden jobs. The girls give a higher average rank to garden jobs than do either the agriculture or home economics teachers. The agriculture teachers rank home gardening third in importance as an enterprise to teach girls, as judged by the frequency taught. All groups seem to feel that girls should know how to plan a garden and grow vegetables, which would include the control of insects and diseases, but few thought the girls should know much about the objectives in cultivating, in making an ideal seed bed or in fertilizing a garden.

TABLE XIV

RANK OF HOME GARDEN JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THE STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
How to grow vegetables in the home garden	4	7	6.5
Planning a year-round garden	5	3	6.5
How to control insects and diseases in the farm garden	8	12.5	10
Objectives in cultivating crops, gardens, and flowers	29	38	36
Making an ideal seed bed for crops, gardens, etc.	33	41	43.5
Fertilizers for orchard and garden	42	33	42
Average rank	20.1	22.4	24.1

Table XV gives the rankings of eight farm mechanics jobs for girls as they were ranked in Table X by teachers of agriculture, by teachers of home economics and by girls of home economics. The items range in rank from 8.5 to 48. Only the one item, "making a flower box or some other simple article requiring carpenter tools," was included in the upper ten of the fifty items by any group and this rank was given by teachers of home economics.

The eight items listed are given an average ranking of 12 places higher by the home economics teachers than by the agriculture teachers and a ranking of 6 places higher than by the home economics girls. This indicated that home economics teachers stress certain farm mechanic needs for girls more than do either of the other groups. The girls rank the items on an average higher than the agriculture teachers, making a difference of 6 places.

On the basis of this data all groups would essentially include "the uses and application of paints, varnishes and enamels" in the upper fifteen items to be taught the girls by the agriculture teachers while the items "making a flower box" and "refinishing old floors" would be taught in the upper twenty items with sharpening of knives and scissors in the upper thirty. The groups agree that soldering utensils; making, uses for, and application of whitewash; and repairing faucets would rank among the last items to be taught. The girls and agriculture teachers agree that it is not essential for girls to know how to repair faucets by ranking that item 48th. The home economics teacher thought it should be included in the upper twenty-five items and gave it a rank of 20.5 (a tie for 20th and 21st place).

In comparing the jobs taught in farm mechanics with the jobs which the teachers think should be taught, we find that eight teachers listed 17 jobs which they had taught the girls. (Table X) Farm mechanics ranked fourth, based on frequency taught. The subject matter which was used in this exchange of classes included: making and repairing furniture; repairing and refinishing furniture; learning the use of shop tools; studying paints, whitewash and varnishes; studying wood materials; sharpening knives and scissors; soldering pans, and planning a water supply for the kitchen. No one specific item was taught by more than three teachers.

While some of the above items were not included in the check list sent to the groups, there seems a probable desire on the part of some girls to have some of these items taught which were not included, but were listed as having been taught other girls by the agriculture teachers. In Table XI we find that girls listed additional jobs which they thought should be taught. These include: making, selecting, and refinishing furniture; making lawn and household equipment; use of shop tools; and "farm shop" as a unit.

In summarizing we note that home economics teachers stress home mechanics for girls more than either the agriculture teachers or the girls. Only eight of the 52 teachers taught farm mechanics to the girls. The agriculture teachers indicate less need of farm mechanics for girls than than do any of the other groups and place the most important job only 17th in rank. The "uses and application of paints, varnishes and enamels" ranks higher by all groups than any other item. However, the home economics teachers rank "the making of some simple article, such as a flower box" in the upper ten items.

TABLE XV

RANK OF FARM MECHANICS JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THE STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
Making a flower box or some simple article with carpenters' tools	11	35	8.5
Uses and application of paints, varnishes, enamels, etc.	13	17	14
Refinishing old floors	21	19	14
General repair of furniture, screens, doors, etc.	23	43	16.5
Sharpening knives and scissors	25	19	28.5
Soldering utensils	34	44.5	31.5
Making, uses for, and application of whitewash	43	40	36
Repairing faucets	48	48	20.5
Average rank	27.25	33.2	21.2

Table XVI shows that girls place more emphasis on the need for a knowledge of caring for dairy products than do either the home economics or agriculture teachers. The importance of knowing how to select a good cow was given a low rank of 39 by the girls; however, this was a higher rank than was given by either of the groups of teachers. All groups placed "feeding and care of the dairy cow" in 40th place or lower, thus indicating very little need for girls to know about this item.

In the additional items suggested by girls, 19 of them said they should learn how to milk a cow while one said that they should know something about cleaning dairy barns.

The items which five agriculture teachers taught to home economics girls in their exchange of classes conform quite closely with the suggestions from girls as to their opinions of girls' needs. The five teachers who taught subjects relating to dairying taught: (1) how to select a good dairy cow, (2) the production of clean milk and butter, (3) production of the home milk supply, and (4) the breeding and management of dairy cows.

From this data we gather that girls are more concerned with dairying largely as it affects the home food supply and jobs which the average woman would have in producing higher quality milk and butter. They are less interested in the technical part of dairying, such as the selecting, feeding and caring of the cow; however, they were more interested in being able to select a good cow than they were in the actual problems involved in the care of the cow.

TABLE XVI

RANK OF DAIRY JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THE STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
Production of clean milk on the farm	9	12.5	18.5
Making butter on the farm	12	23	18.5
How to select a good dairy cow	39	47	43.5
Feeding and care of the dairy cow	40	46	40
Average rank	25	32.1	30.1

With the increased use of electricity and electrical applicances in the home, one might expect that all groups in this study would suggest that girls learn about the cost of electricity, and how to repair minor electrical equipment. Only four agriculture teachers reported teaching electrical jobs to girls. The subject matter taught by these teachers was based on how to repair equipment, and the uses of electricity in the home.

Table XVII gives the attitudes of high school girls, agriculture and home economics teachers toward the value of two electrical items to be taught to girls. The home economics teachers place the job "fixing broken cords, fuses and other minor electrical equipment" in rank 4.5, or a tie between 4th and 5th places. The remaining groups would have these items taught about mid-way, if all fifty items were taught.

In comparing the rating of the items, we find close agreement between the girls and agriculture teachers as to relative unimportance of the two items, while the home economics teacher would rank them on an average of 13 places above the ranking given by the girls and agriculture teachers.

Only four of the 52 agriculture teachers reported teaching any phase of electricity to girls. Three of these taught the repair of electrical equipment, an item ranked 4.5 by the home economics teachers. The other items on electricity were ranked 25th or lower by all groups.

We might conclude, then, that electricity for girls is considered to be of only medium importance compared with the items "home beautification" and "home gardens."

TABLE XVII

RANK OF ELECTRICAL JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THIS STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
Value of cost of electricity in the home	27	28	25
Fixing broken cords, fuses, and other minor electrical equipment	31	26	4.5
Average rank	29	27	14.75

Six jobs relating to the planning and management of the home orchard and to propagation of fruit trees were included in the list of 50 jobs checked by teachers and home economics girls. The comparative ranking of these six jobs is given in Table XVIII. There is a low evaluation given to these jobs by all groups. With the exception of "growing fruit for home use" which was ranked 17th by the girls, no other job ranker higher than 33. "How to graft and bud fruit trees" was ranked 49 by the agriculture teachers and home economics girls, and 50th, or last, by the home economics teachers. The home economics girls ranked the six jobs only 1.2 places higher than did the agriculture teachers and 6.2 places higher than the home economics teachers.

The relative unimportance of teaching orcharding to girls in their exchange of classes is indicated by the fact that only three teachers had included subject matter on home orchards. Three of the teachers taught "growing of fruit for home use" while one of the three also taught "budding and grafting fruit trees".

The data indicate that all groups consider home orchard jobs of little importance to girls. The agriculture teachers evidently agreed because prior to this study only three of the 52 reported teaching any orchard jobs. The girls placed a medium ranking on the growing of fruit and were less interested in the actual operative jobs in the orchard.

TABLE XVIII

RANK OF ORCHARD JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THE STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
Growing of fruit for home use	17	39	41
How to control insects and diseases in the home orchard	37	44.5	45
Fertilizers for orchard and gardens*	42	33	42
Planning a year-round orchard	45	42	47
How to propagate grapes	47	36.5	49
How to graft and bud fruit trees	49	49	50
Average rank	39.5	40.7	45.7

*Also listed in Table XIV under "Garden enterprises"

Table XIX gives a comparative ranking by teachers of agriculture and home economics and by the home economics girls of the three items relating to the cleaning of wall paper and the papering of a room. (Previously listed in Table X) A wide variation exists between the opinions of the high school girls and their teachers of agriculture and home economics as to the need for knowing how to clean wall paper. The girls ranked this item number seven among the 50 jobs included in Table X, while the agriculture teachers gave it a rank of 23, and the home economics teachers a rank of 25. No teacher reported having taught this subject to girls in the exchange of classes prior to the time this study was made.

The greatest difference in the opinions of the groups occurred between the teachers of home economics and the home economics girls, with an average of 8.1 places. There were 4.1 places difference in the average ranking between the girls and agriculture teachers, and 4 places between the agriculture and home economics teachers.

Thus we see that the items related to papering were ranked low by all groups, with the exception of the item, "how to clean wallpaper" which was placed in the seventh rank by the girls.

TABLE XIX

RANK OF HOME INTERIOR JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THIS STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
How to clean wall paper	7	23	25
How to paper a room	28	31.5	36
Calculating the amount of paper needed to paper a room	30	23	28.5
Average rank	21.7	25.8	29.8

Table XX lists the remaining six jobs or items not given in preceding tables, and are listed as "miscellaneous farm and home items or jobs."

The item "family and home relationships" is a rather broad term, but it is interesting in that the girls were more concerned with this problem than were either the teachers of home economics or the teachers of agriculture. The girls ranked this subject eleven and twelve places higher respectively than did the home economics teachers and agriculture teachers.

Although the two items "advantages and disadvantages of farm life" and "appreciating farm life and the farmers' problems" are somewhat similar in nature, both are ranked very high by the home economics teachers—an evaluation of 20.5 and 22 respectively. The agriculture teachers evaluate these items higher than the girls rank the same jobs.

The girls place the item "simple farm accounting" 45th in rank, or 13.5 places lower than the rank given by the teachers of agriculture and home economics.

The agriculture teachers seem to have a higher appreciation for the value of soil conservation as it affects better home and living conditions than do the home economics teachers or the girls. However, the agriculture teachers give it a rank of 36.5, which is relatively low when compared with the 46th rank given by both teachers of home economics and the girls.

The item, "survey of living conditions as they exist in own county" was ranked 50th, or last by the agriculture teachers and third

from the bottom or 48th by the home economics teachers.

While some of the jobs or items in Table XX are rather broad and are not definite enough to know what might be included, data show that all groups rank the items relating to family and home problems low. There is close agreement in the average ranking of the six items. The home economics teachers stress the importance of these problems more than do the other two groups—still they give the six items a relatively low score.

TABLE XX

RANK OF MISCELLANEOUS JOBS AS EVALUATED BY TEACHERS OF HOME ECONOMICS AND AGRICULTURE AND HOME ECONOMICS GIRLS PARTICIPATING IN THIS STUDY

Jobs or Items	Rank Given Items or Jobs By:		
	Girls	Voc. Ag. Teachers	Home Ec. Teachers
Family and home relationships	22	34	33
Advantages and disadvantages of farm life	36	26	20.5
Appreciating farm life and farmers' problems	41	29	22
Simple farm accounting	44	31.5	31.5
Soil conservation and its relationship to improving farm and home conditions	46	36.5	46
Survey of living conditions as they exist in own county	50	50	48
Average rank	39.6	34.5	35.5

Previous tables have indicated a comparative evaluation of items as they were ranked by teachers of agriculture, teachers of home economics, and home economics girls. These tables were tabulated by enterprises or subject matter, showing the importance attached to each item as evaluated by teachers of agriculture, teachers of home economics, and home economics girls.

Table XXI has been prepared to show the ten jobs, or items, ranked highest by each group in order that a comparison may be made of the subject matter which each group would select if it were based on opinions of their respective group. This table also gives the difference in rank between the opinions of the girls and home economics teachers, between the girls and agriculture teachers, and between the home economics and agriculture teachers.

In Table XXI, we find that five of the ten items selected, by the girls and home economics teachers, relate to the beautification of the home or the home grounds. These items are given a somewhat higher rank by the girls than by the home economics teachers. The items were ranked by the girls in the following order: (1) growing of flowers, (2) home beautification, (3) the importance of water for plants and how flowers should be watered, (4) planting and caring for the lawn, and (5) pruning and caring for shrubbery. All of these items, except the one "watering of plants and flowers," were ranked in the upper ten as selected by the agriculture teachers with only one item "planting and caring for the lawn" ranking in the upper five. "Watering plants" was ranked 16th by the agriculture teachers.

The teachers and girls agreed on the items relating to the home garden. There is a difference of less than three points in their ranking of the jobs "how to grow vegetables in the home garden" and "planning a year round garden," these two items being placed 4th and 5th respectively by the girls and not lower than 7th by any group. The item "how to control insects in the home garden" is ranked in the upper group by the home economics teachers and girls, being in the 10th and 8th places respectively, but a slightly lower rank is given by the agriculture teachers, or 12.5 which indicates a tie for twelfth and thirteenth places. Perhaps there is a need in the average home for a cheap way to clean wall paper which made it rank 7th among all items. This seemed less practical or less important to the agriculture teachers and home economics teachers as shown by a wide difference between their opinions and those of the girls—a difference of 18 and 16 places respectively. "Production of clean milk on the farm" was placed in the upper ten rank by the girls, but placed 12.5 by the agriculture teacher, a difference of 5.5 places. The home economics teachers ranked this item 18.5, a difference of 9.5 places between the ranking given this item by the girls and home economics teachers.

Again, as in Table XII, from the high ranking given poultry jobs by the three groups, it is evident that the agriculture teachers consider this subject to be considerably more important than do the home economics teachers and girls. The items "feeding for egg production," and "control of insects and diseases of poultry" are ranked 1 and 2 by the agriculture teachers, while neither job is placed higher than 12 by the girls or home

economics teachers. "Incubation and brooding baby chicks" is tied for 8th and 9th places by the agriculture teachers, while "importance of poultry on the farm" is tied for 10th and 11th places, with neither job ranking in the upper ten by the other groups.

The home economics teachers place the "fixing of minor electrical appliances" in the upper ten with a ranking of 4.5, while the girls and agriculture teachers think it is relatively unimportant and rank it 31, and 26 respectively, showing a wide divergence of opinion between the home economics teachers and the other groups. The home economics teachers also think that girls should be able to identify shrubbery, know where it should be put and how to propagate shrubs, and thus placing these combination of items in 3rd place while the girls ranked them 16th and the agriculture teachers 19th, a difference in rank of 13 and 16 places respectively.

The home economics teachers think that the girls should learn to use carpenters' tools, in order to make certain items like flower boxes for the home. This item would be taught in the upper ten jobs, if seven jobs were selected by the home economics teachers. The girls and home economics teachers more nearly agree on the importance of this item than do the agriculture and home economics teachers, by ranking it 11th, while the agriculture teachers rank it 35, or 26.5 ranks lower than that ranked by the home economics teachers.

In summarizing, all groups agree that girls should study items relating to home beautification and the beautifying of the home grounds.

On the gardening subject, all groups think that the girls should know how to plan an all-year-round garden, how to grow vegetables, and how to control insects and diseases in their gardens.

The eighteen items, or jobs studied show that the girls and home economics teachers agree more closely than the other groups as to the subject matter that should be taught girls in the exchange of classes, with an average difference of 6.22 between each of the 18 jobs. In the ranking of these jobs by the other groups, there is an average difference of 9.44 in the evaluations of the girls and the agriculture teachers, and a difference of 9.94 in the evaluations of the home economics and agriculture teachers.

TABLE XXI

COMPARATIVE RANKINGS ASSIGNED TO EIGHTEEN ITEMS, OR JOBS,* BY GIRLS, HOME ECONOMICS TEACHERS AND AGRICULTURE TEACHERS

Jobs or Items	Rank Given Items or Jobs by:			Difference in Rank Between:		
	Girls	H. Ec. Teachers	Ag. Teachers	Girls and H.Ec. Teachers	Girls and Ag. Teachers	H. Ec. and Ag. Teachers
Growing of flowers	1	2	8.5	1	7.5	6.5
Home beautification	2	1	5.5	1	3.5	4.5
Watering plants; importance of water and how to water flowers	3	8.5	16	5.5	13	7.5
How to grow vegetables in home garden	4	6.5	7	2.5	3	.5
Planning a year round garden	5	6.5	3	1.5	2	3.5
Planting and care of the lawn	6	4.5	4	1.5	2	.5
How to clean wall paper	7	25	23	18	16	2
How to control insects and diseases in the home garden	8	10	12.5	2	4.5	2.5
Production of clean milk on the farm	9	18.5	12.5	9.5	3.5	6.0
Pruning and caring for shrubbery	10	11	10.5	1	.5	.5
Making of flower box or some simple article with carpenters' tools	11	8.5	35	2.5	24	26.5
Incubation and brooding baby chicks	14	16.5	8.5	2.5	5.5	8

TABLE XXI (Continued)

COMPARATIVE RANKINGS ASSIGNED TO EIGHTEEN ITEMS, OR JOBS,* BY GIRLS, HOME ECONOMICS TEACHERS AND AGRICULTURE TEACHERS

Jobs or Items	Rank Given Items or Jobs by: Girls	H. Ec. Teachers	Ag. Teachers	Difference in Rank Between: Girls and H.Ec. Teachers	Girls and Ag. Teachers	H. Ec. and Ag. Teachers
Feeding for eggs production	15	12	1	3	14	11
Identification, uses and propagation of common shrubs	16	3	19	13	3	16
Control of insects and diseases of poultry	20	30	2	10	18	28
Importance of poultry of the farm	26	25	10.5	1	15.5	14.5
Fixing broken lamp cords, fuses and other minor electrical equipment	31	4.5	26	26.5	5	21.5
Culling the poultry flock	35	25	5.5	10	29.5	19.5
Total difference				112.0	170.0	179.0
Average difference				6.22	9.44	9.94

* The jobs, or items, are taken from Table X, and include the ten jobs ranked highest by either the girls, home economics teachers or agriculture teachers.

Differences in Ranking of Fifty Items by Teachers and Girls

It was shown in Table XXI that the home economics girls and home economics teachers were in closer agreement as to the more important items to be taught than were agriculture teachers and girls or the agriculture teachers and home economics teachers. Table XXII shows the average difference in the ranking of all fifty items.

Again we find that home economics teachers and home economics girls are more closely agreed on all fifty items than are the other groups, with an average difference of only 6.68 places between their ranking of jobs. The next closest difference is between the home economics and agriculture teachers, with a difference of 7.86 places, slightly more than existed between the girls and home economics teachers. There is practically no difference between the average ranking of jobs by the agriculture teachers and girls and the teachers of agriculture and home economics, a mere .06 difference in average rank.

TABLE XXII

AVERAGE DIFFERENCE IN RANKING OF FIFTY ITEMS* AS EVALUATED BY HOME ECONOMICS GIRLS, TEACHERS OF VOCATIONAL AGRICULTURE AND HOME ECONOMICS

Groups	Average differences in ranks between groups
Home economics teachers and home economics girls.....	6.68
Home economics teachers and agriculture teachers.....	7.86
Agriculture teachers and home economics girls.....	7.92

*Jobs, or items, taken from Table I

An Analysis of Jobs, or Items, as Ranked by Girls in Ninth, Tenth, Eleventh, and Twelfth Grades

Table XXIII gives the comparative ranking of items as evaluated by all girls in the four grades in high school. Through the difference in subject matter as selected by the different grades, information may be obtained which might show what subject matter should be taught to girls based on grade differences. The average differences in rank of the fifty items as evaluated by each of the four grades will also give a basis for comparing the differences between grades, as well as between the teachers and girls. This table represents the opinions of 863 ninth grade girls, 471 tenth grade, 197 eleventh grade, and 98 twelfth.

If subject matter could be assigned grade placement based on girls' felt needs, it is assumed that there would be ascending or descending importance attached to a particular item by each grade. Where there is no consistency in ranking given items from the ninth to the twelfth grade, then we cannot assume that this item should be assigned to a particular grade. We find that there are no items with consistently ascending ranks from the ninth to the twelfth grades, and only three which have a consistently descending rank. These three items are: (1) planning a year-round garden, (2) making butter on the farm, and (3) repairing furniture, screens, doors, etc. The other 47 items showed irregular ranking from ninth to twelfth grades.

Although we do not have sufficient evidence to justify grade placement, judged from the data presented, some items seem to be ranked considerably higher or lower by one grade than by another.

"Planning a year-round garden" was ranked ten places lower by the twelfth-grade girls than by any other group. The item "Production of clean milk on the farm" was given a rank of 13 places lower by the eleventh-grade girls than was given by the other grades. The twelfth-grade girls were more interested in learning to identify shrubs than were the girls in the other three grades. Both the eleventh and twelfth-grade girls were more interested in learning how to refinish old floors than were the ninth and tenth-grade girls.

TABLE XXIII

EVALUATION OF FIFTY JOBS, OR ITEMS, AS RANKED BY NINTH, TENTH, ELEVENTH, AND TWELFTH GRADE HOME ECONOMICS GIRLS

*Job of Item	Ranked by 863 9th Grade	471 10th Grade	197 11th Grade	198 12th Grade
Growing of flowers	1	1	1	1
Home beautification	2	2	2	4
Watering plants; importance of water and how to water flowers	3	5	3.5	2
How to grow vegetables in the home garden	4	4	5	4
Planning a year round garden	5	6	6.5	16.5
Planting and care of the lawn	12	3	3.5	4
How to clean wall paper	6	10	8	15
How to control insects and diseases in the home garden	9	7	6.5	10
Production of clean milk on farm	7	8	21	7
Pruning and caring for shrubbery	11	9	10	16.5
Making a flower box or some simple article with carpenter tools	10	13	10	7
Making butter on the farm	8	11	18	21
Uses and application of paints, varnishes, enamels, etc.	13	17	10	19
Incubation and brooding baby chicks	14	12	15	10
Feeding for egg production	16	14	21	13
Identification, uses and propagation of common shrubs	17	19	12	7
Growing fruit for home use	15	25	16.5	29.5
Handling eggs for high quality	19	21	21	10
Identifying shade trees and determining suitability for home grounds	21	20	23.5	13
Control of insects and diseases of poultry	22	15	25.5	25
Refinishing old floors	20	26	13.5	13
Family and home relationships	25	16	13.5	21

TABLE XXIII (Continued)

EVALUATION OF FIFTY JOBS, OR ITEMS, AS RANKED BY NINTH, TENTH, ELEVENTH, AND TWELFTH GRADE HOME ECONOMICS GIRLS

*Job or Item	Ranked by 865 9th Grade	471 10th Grade	197 11th Grade	198 12th Grade
Repair of furniture, screens, screens, doors, etc.	18	23	25.5	29.5
Setting and caring for shade trees	29	28	31	33
Sharpening knives and scissors	23	24	16.5	23.5
Determining the importance of poultry on the farm	27	18	28	18
Value and cost of electricity in home	26	22	29.5	21
How to paper a room	24	31	27	33
Objectives in cultivating crops, gardens, and flowers	28	30	29.5	27
Calculating the amount of paper needed to paper a room	32	27	19	23.5
Fixing broken lamp cords, fuses and minor electrical equipment	30	29	23.5	27
Study of poultry houses and equipment	34	32	32.5	33.5
Making an ideal seed bed for crops, gardens, etc.	33	33	32.5	27
Soldering utensils	31	36	37	33
Culling the poultry flock	35	34	34	31
Advantages and disadvantages of farm life	36	33	36	41.5
How to control insects and diseases in home orchard	37	37	42	41.5
Farm sanitation needed in growing livestock and poultry	40	38	38	38.5
How to select a good dairy cow	39	41.5	40.5	38.5
Feeding and care of the dairy cow	38	41.5	44.5	44
Appreciating farm life and farmers' problems	42	39	35	37
Fertilizers for orchards and gardens	43	44	44.5	40

TABLE XXIII (Continued)

EVALUATION OF FIFTY JOBS, OR ITEMS, AS RANKED BY NINTH, TENTH, ELEVENTH, AND TWELFTH GRADE HOME ECONOMICS GIRLS

*Job or Item	Ranked by 863 9th Grade	471 10th Grade	197 11th Grade	198 12th Grade
Making, uses for, and application of whitewash	41	46	39	47
Simple farm accounting	46	40	45	35.5
Planning a year round home orchard	44	43	47	46
Soil conservation and its relationship to improving farm and home conditions	45	45	46	43
How to propagate grapes	48	47	48	49
Repairing faucets	49	48	40.5	45
How to bud and graft fruit trees	47	50	49.5	50
Study of farming conditions as they exist in own county	50	49	49.5	48

* Items are listed in order of evaluation by entire group of 1,629 girls.

Table XXIV shows the differences between the evaluation of the 50 items (listed in Table XXIII) by the girls of the four high-school grades. The closest agreements of opinions are between the ninth and tenth grades, with the greatest difference in opinion being between the ninth and twelfth grades. The average difference between each of the grades is 3.92 places, a comparatively low difference.

These differences are considerably less than existed between girls and either group of teachers, or between the teachers of agriculture and home economics as shown in Table XXII.

TABLE XXIV

AVERAGE DIFFERENCE IN RANK OF FIFTY ITEMS AS EVALUATED BY GIRLS OF 9th, 10th, 11th and 12th GRADES

Grades	Differences in Rank Between Grades
9th and 10th	2.81
9th and 11th	3.60
9th and 12th	4.88
10th and 11th	3.70
10th and 12th	3.98
11th and 12th	4.56
Average difference	3.92

Comparison of Items Selected by Girls Residing in Town with Those Residing in the Country as Based on Opinions

All previous references to home economics girls have referred to the girls living in both town and country and without any consideration of residence. This study deals with the opinions of town and country girls separately. These opinions will be compared to determine if subject matter, as based on felt needs, is identical for each group. Comparisons will be made of grade differences existing between the groups.

Table XXV gives the rankings of 50 agricultural items as ranked by 261 town and 602 country girls of the ninth grades; 145 town and 326 country girls of the tenth grades; and 37 town and 120 country girls of the eleventh grades; and 38 town and 60 country girls of the 12th grades. The ranking of each item as ranked by all the town girls and by all the country girls is the rank given by 521 town girls and 1108 country girls.

We note in Table XXV that there is close agreement between the opinions of the town girls of all grades as compared with the opinions of country girls of all grades. There seems to be more variation in the subject matter selected by the twelfth grade town and country girls than that selected by any of the other grades. For example: The girls living in the country give a higher rank to the item "production of clean milk on the farm" than do the town girls with the exception of the 12th grade town girls. This is also true of the item "incubation and brooding baby chicks." The item "handling eggs for high quality" was ranked

higher by both the 12th grade town and country girls than was ranked by any of the other grades. The item on "planning a year round garden" was given a low rank by the 12th grade town girls as compared to the girls of other grades of either town or country. "How to clean wall paper" was given a much higher rank by all grades of both town and country girls than was given by the 12th grade country girls. "Making butter on the farm" was ranked lower by the 12th grade country girls than by the other grades. The 12th grade town girls desire more than any of the other groups to know how to identify shade trees and to know the proper location of these trees. The 12th grade town girls rank relatively high the item "value and cost of electricity" while it is given 33 ranks lower by the 12th grade country girls.

Certain other items may show a lower or higher rank given by specific grades other than the 12th but the difference is not so pronounced.

There seems to be no pronounced descending or ascending in rank of items between the grades of either town or country girls. In comparing the items selected by the entire group of town girls as compared to the entire group of country girls, without considering grades attained by the girls, certain agreements and disagreements are noted. Both groups would learn to beautify the home and home grounds. The country girls ranked the poultry items higher than did the town girls while the town girls gave a higher ranking to the items on electricity and farm mechanics. Both groups were interested in planning a year

round garden and in growing vegetables in the garden. Both groups agree that girls should know how to make butter on the farm and both agree that they need know but little about the care of the dairy cow. Both groups agree on the relatively low importance of items pertaining to family and home relationships.

TABLE XXV

RANKING OF FIFTY JOBS, OR ITEMS, BY NINTH, TENTH, ELEVENTH, AND TWELFTH GRADE HOME ECONOMICS GIRLS LIVING IN BOTH TOWN AND COUNTRY, TOGETHER WITH COLLECTIVE RANKING BY EACH GROUP

Jobs or Items	Ranked by:									
	Town Girls				Country Girls				All Grades	
	9th	10th	11th	12th	9th	10th	11th	12th	Town	Country
Growing of flowers	1	1	1	1	1	1	1	4.5	1	1
Home beautification	2	2	3	2.5	2	2	2	8.5	2	2
Watering plants; importance of water and how to water flowers	3	3	3	4.5	3	6	3.5	2.0	3	3
How to grow vegetables in the home garden	5	5	5	4.5	5	3.5	5	4.5	5	4
Planning a year round garden	10	8.5	10	28	4	5	6.5	8.5	9	5
Planting and care of the lawn	4	4	3	2.5	20	3.5	3.5	8.5	4	9
How to clean wall paper	6	14.5	7	6	7	9	8	25	6	8
How to control insects and diseases in the home garden	12	6.5	10	28	8.5	7	6.5	1	10	7
Production of clean milk on farm	18	10	29.5	9.5	6	8	13.5	11.5	18	6
Pruning and caring for shrubbery	14.5	6.5	10	18.5	11	10	9.5	15	11.5	10
Making a flower box or some simple article with carpenters' tools	8	14.5	7	14	12.5	17	11.5	4.5	8	15
Making butter on the farm	9	11.5	24.5	14	8.5	11.5	16	30.5	11.5	12
Uses and application of paints, varnishes, enamels, etc.	7	8.5	7	20.5	17	19	11.5	18.5	7	18

TABLE XXV (Continued)

RANKING OF FIFTY JOBS, OR ITEMS, BY NINTH, TENTH, ELEVENTH, AND TWELFTH GRADE HOME ECONOMICS GIRLS LIVING IN BOTH TOWN AND COUNTRY, TOGETHER WITH COLLECTIVE RANKING BY EACH GROUP

Jobs or Items	Ranked by									
	Town Girls				Country Girls				All Grades	
	9th	10th	11th	12th	9th	10th	11th	12th	Town	Country
Incubation and brooding baby chicks	24	14.5	18.5	8	12.5	11.5	13.5	15	20	14
Feeding for egg production	29	19	27	18.5	10	14	18	8.5	25	11
Identification, uses and propagation of common shrubs	19.5	11.5	18.5	14	21	22	9.5	4.5	16.5	20
Growing fruit for home use	22	27	16	28	14	20.5	20	30.5	23	17
Handling eggs for high quality	28	26	20.5	14	16	18	24	11.5	26	16
Identifying shade trees and determining suitability for home grounds	17	18	20.5	9.5	25	20.5	27	15	19	24
Control of insects and diseases of poultry	32	24	27	23.5	15	13	24	25	28	15
Refinishing old floors	19.5	20.5	12	7	23	26	20	18.5	16.5	25
Family and home relationships	25	22.5	16	14	24	16	15	30.5	22	21
Repair of furniture, screens, doors, etc.	16	22.5	27	23.5	22	23	24	34.5	21	23
Setting and caring of shade trees	27	28.5	29.5	45	26	29.5	31	21	30	28
Sharpening knives and scissors	11	20.5	13.5	23.5	29	24	24	21	14	26
Determining the importance of poultry on the farm	35	25	31.5	20.5	18	15	24	15	32	19

TABLE XXV (Continued)

RANKING OF FIFTY JOBS, OR ITEMS, BY NINTH, TENTH, ELEVENTH, AND TWELFTH GRADE HOME ECONOMICS GIRLS LIVING IN BOTH TOWN AND COUNTRY, TOGETHER WITH COLLECTIVE RANKING BY EACH GROUP

Jobs or Items	Ranked by									
	Town Girls				Country Girls				All Grades	
	9th	10th	11th	12th	9th	10th	11th	12th	Town	Country
Value and cost of electricity in the home	14.5	14.5	22.5	11	32	25	29.5	34.5	14	29
How to paper a room	30	34.5	31.5	40	19	28	20	25	33	22
Objectives in cultivating crops, gardens and flowers	25	28.5	16	28	27	31	33	25	24	31
Calculating the amount of paper needed to paper a room	31	30	24.5	17	30.5	27	17	30.5	29	27
Fixing broken lamp cords, fuses, and minor electrical equipment	13	17	13.5	28	37	34	28	25	14	35
Study of poultry houses and equipment	39.5	32	36	33	30.5	29.5	29.5	38	37	30
Making an ideal seed bed for crops, gardens, etc.	26	33	22.5	35.5	33	35.5	36.5	17	31	33
Soldering utensils	21	31	39.5	45	34	39	34	21	27	36
Culling the poultry flock	45.5	34.5	39.5	35.5	28	33	32	28	42	32
Advantages and disadvantages of farm life	34	36.5	36	46.5	36	32	36.5	34.5	35	34
How to control insects and diseases in the home orchard	36	42	44.5	43	35	35.5	41	39	40	37
Farm sanitation needed in growing livestock and poultry	38	39.5	33.5	31.5	39	38	39	40	37	38
How to select a good dairy cow	39.5	36.5	36	25.5	38	43	41	43.5	37	40

TABLE XXV (Continued)

RANKING OF FIFTY JOBS, OR ITEMS, BY NINTH, TENTH, ELEVENTH, AND TWELFTH GRADE HOME ECONOMICS GIRLS LIVING IN BOTH TOWN AND COUNTRY, TOGETHER WITH COLLECTIVE RANKING BY EACH GROUP

Jobs or Items	Ranked by									
	Town Girls				Country Girls				All Grades	
	9th	10th	11th	12th	9th	10th	11th	12th	Town	Country
Feeding and care of the dairy cow	38	39.5	39.5	38	40	42	44.5	45.5	34	41
Appreciating farm life and farmers' problems	42	43	33.5	40	41	37	36.5	34.5	41	39
Fertilizers for orchard and garden	37	41	39.5	31.5	44	44	44.5	41	39	45
Making, uses for, and application of whitewash	41	46	45	49	42	45	36.5	43.5	45	43
Simple farm accounting	44	39	47	35.5	46	41	41	37	43	44
Planning a year round home orchard	48.5	47.5	48.5	45	45	40	45	46	48	42
Soil conservation and its relationship to improved farm and home conditions	43	44	44.5	35.5	45	48	46	43.5	44	46
How to propagate grapes	48.5	47.5	42	48	47	47	48	49	47	47
Repairing faucets	45.5	45	46	40	49	50	47	47	46	49
How to bud and graft fruit trees	47	50	48.5	50	48	48	50	50	49	48
Survey of farming conditions as they exist in own county	50	49	50	46.5	50	49	49	48	50	50

Grade Differences Between Town and Country Girls in Ranking Agricultural Items, or Jobs, for Girls

Table XXVI indicates the differences in ranking of the 50 items as evaluated by the ninth, tenth, eleventh and twelfth-grade girls from both the town and country. This table shows that the average difference in opinions on subject matter varies more between the town and country girls than between girls of all grades. There is an average difference between twelfth-grade town girls and the twelfth-grade country girls of 8.77 places in the ranking of each of the fifty items. There is less difference in the opinions of the tenth-grade girls than between any other group. The average difference in rank between each of the grades is 6.05.

TABLE XXVI

AVERAGE DIFFERENCE IN EVALUATION OF FIFTY ITEMS BY TOWN AND COUNTRY GIRLS OF THE SAME HIGH SCHOOL GRADE

Grades	Average Difference in Rank Between Town and Country Girls of the Same Grade
9th Town and Country	6.06
10th Town and Country	4.40
11th Town and Country	5.16
12th Town and Country	8.77
Average	6.05

Table XXVII shows the differences between the grades of both town and country girls in their evaluation of the fifty items taken from Table XXV. The country girls seem to agree more fully than the town girls on the subject matter which they think should be taught. The closest agreement is between the 9th and 10th grades with slightly less agreement between the 9th and 11th, and 10th and 11th grades. The most difference in each group is the difference between the 12th grades and the other grades, with the greatest difference being between the 9th and 12th grade town girls. The average difference in evaluation of the 50 items was 5.74 for the town girls as compared to 4.76 for the country girls.

TABLE XXVII

AVERAGE DIFFERENCE IN EVALUATION OF FIFTY ITEMS BY TOWN AND COUNTRY GIRLS, BY GRADES

Grades	Average Difference in Rank Between:	
	Town Girls	Country Girls
9th and 10th	4.18	3.06
9th and 11th	4.20	3.96
9th and 12th	8.14	5.98
10th and 11th	4.86	3.26
10th and 12th	5.56	6.36
11th and 12th	7.56	5.98
Average of all grades	5.74	4.76

CHAPTER III

SUMMARY

In this study of content for teaching agriculture to girls and home economics to boys in the high schools of Tennessee, we find that home economics was being taught to boys as far back as 1916. Later came the exchange of classes between the teachers of agriculture and home economics. Following this type of program came the joint teaching programs between the departments whereby both sexes were taught jointly rather than separately. At the present time, certain high schools in the southern states are cooperating with the Southern Association of Colleges and Secondary Schools in an attempt to correlate the work of all the teachers within the school in planning school programs focused on the child's needs and interests and which are compatible with the growth, development and nature of the child.

The participants in this study include 113 vocational agriculture teachers, 64 vocational home economics teachers, 1,378 agriculture boys, and 1,629 home economics girls from high schools of the western, middle and eastern sections of the State of Tennessee. All of the agriculture teachers taught in schools where there was a home economics teacher, while only 52 of the home economics teachers taught in schools in which there was an agriculture teacher.

We find that 38.4 per cent of all the home economics teachers and 38.8 per cent of all agriculture teachers exchanged classes during the school year 1937-1938, while 48.5 per cent of the home economics teachers and 50.4 per cent of the agriculture teachers had exchanged

classes at some time prior to June, 1938.

Table XXVIII was prepared to emphasize the relationship between items which were taught to boys by the home economics teachers and items which boys, agriculture teachers and home economics teachers thought should be taught to boys.

The items under "manners and etiquette" were taught most frequently by home economics teachers and were also included in the first group of items selected by the girls, and by the teachers of vocational agriculture and home economics. This agreement is not so close in the other items taught by the home economics teachers.

TABLE XXVIII

COMPARISON OF ITEMS TAUGHT BY HOME ECONOMICS TEACHERS IN ORDER OF THEIR FREQUENCY TOGETHER WITH AVERAGE RANK GIVEN SIMILAR ITEMS BY BOYS, AGRICULTURE AND HOME ECONOMICS TEACHERS

Items*	Number Teachers Reported Teaching Items	Rank Given By:**		
		Boys	Voc. Ag. Teachers	Home Ec. Teachers
Manners or etiquette	27	2	1.5	1.5
Clothing: its selection and care	26	24.6	23.5	20.5
Foods and nutrition	22	21.1	25.4	27.3
Personal and group relationships	10	14.6	7	5.2
Health and first aid	3	11	15.4	17.7
House and home (Miscellaneous)	2	28.7	23.6	24.8

*Items taken from Table IV.

**Individual Items were taken from Table V; grouped under the headings and average tabulated.

Table XXIX summarizes the opinions of agriculture boys and home economics girls as to content to be taught them. These items are grouped according to the frequency taught boys by the teachers of home economics and to girls by the teachers of agriculture. Aside from "dairying" and "miscellaneous items on the home" for the girls, and "items on personal and group relationships" for the boys, there seems to be little disagreement between grades. There seems to be no degree of uniformity in the increasing or decreasing of rank given to content by either the boys or the girls.

TABLE XXIX

CONTENT TAUGHT TO BOYS AND GIRLS AS RELATED TO THEIR RANKINGS BY GRADES

Content Taught Boys*	Grade in High School 9	10	11	12	Range
Manners or etiquette	2	2.5	2.7	1.5	1.5 - 2.7
Clothing	22.7	28.4	29.2	28.8	22.7 - 29.2
Foods and nutrition	24.3	24.6	25.3	26.9	24.3 - 26.9
Personal and group relationship	16	10.5	9.2	9	9.0 - 16
Health and first aid	9.5	11.5	11.5	11.5	9.5 - 11.5
House and home	26.6	25.6	26.5	24.5	24.5 - 26
Content Taught Girls**					
Home beautification	11.3	10.6	10.5	10.6	10.5 - 11.3
Poultry	25.8	23	26.6	22.6	22.6 - 26.6
Gardening	20.5	21	20.7	20.7	20.5 - 21
Farm mechanics	26.4	29.5	25.5	28.4	25.5 - 29.5
Home (Miscellaneous)	25.2	25	18.2	22.6	18.5 - 25.5
Dairying	23	25.5	31	27.6	23 - 31
Electricity	28	25	27.5	24	24 - 28
Home orchards	39	41	41.2	42.6	39 - 42.6
Soils	45	46	46	45	45 - 46

*See Table V for ranking by boys of individual items.
**See Table XXIII for ranking by girls of individual items.

In this study an attempt has also been made to determine the difference in content for teaching town and country girls. The results of these comparisons are condensed in Table XXX. The arrangement follows that of Table XXV. In this table the items on poultry, farm mechanics and electricity are the only ones showing noticeable variations. The twelfth grade is an exception.

The request for additional items not included in the check list resulted in an increase of 15¼ per cent to the list for girls and 11¼ per cent to the list for boys. A large portion added by the boys dealt with problems on home and family relationships and on miscellaneous problems affecting the home and family.

TABLE XXX

CONTENT TAUGHT TO TOWN AND COUNTRY GIRLS AS RELATED TO THEIR RANKING BY GRADES

Items	Grades									
	9th		10th		11th		12th		All	All
	Town	Country	Town	Country	Town	Country	Town	Country	Town	Country
Home beautification	10.4	12.8	9.7	11.5	10.6	10.5	10.1	11.3	10.3	11.6
Poultry	23.7	21.0	26.8	21.2	29.2	25.5	23.0	22.6	30.8	21.8
Gardening	18.8	20.1	20.4	21.0	17.1	25.9	16.1	19.6	19.6	20.8
Farm mechanics	18.0	27.2	23.3	28.6	23.3	25.3	28.9	26.0	24.0	29.0
Home (Miscellaneous)	31.3	29.7	33.6	31.0	28.3	28.2	33.3	30.6	25.1	21.2
Dairying	22.1	21.3	24.3	26.5	32.3	28.7	21.2	32.3	25.5	24.7
Electricity	13.6	39.5	15.7	29.5	23.0	28.7	19.5	29.7	14.0	32.0
Home orchards	39.8	38.5	42.5	39.1	39.8	41.0	40.5	42.9	38.6	38.8
Soil conservation	43.0	45.0	44.0	46.0	44.5	46.0	33.5	43.5	44.0	48.0

CHAPTER IV

CONCLUSIONS

1. The fact that teachers of agriculture and of home economics in the high schools of Tennessee have exchanged classes since 1927-28, and that practically one-third of the teachers included in this study exchange classes yearly shows that it is possible for this type of program to be carried out in a large number of schools. This may be of encouragement to those contemplating joint teaching programs or exchange of class programs as well as those who question the advisability or possibility of this type of program.

2. The close agreement between grades as to subject matter needs, together with the lack of ascending or descending trend of rank of items from the ninth through the twelfth grades, leads one to conclude that grade in high school is not sufficient evidence for subject matter assignment. This applies to both boys and girls.

3. It appears that minor differences between the expressed needs of town and country girls can readily be met through individual and limited small group instruction.

4. The fact that boys and girls added more additional items to the check lists than were added by home economics and agriculture teachers may be taken as evidence that boys and girls have a contribution to make when determining the content of their own courses.

5. The differences between home economics and agriculture teachers' opinions of content to be taught girls and boys suggest the

need for a closer agreement between the teachers themselves before attempting to set up joint teaching programs.

6. As has been shown in Chapter I, the trend in education is toward meeting the needs of individual pupils. Since agriculture and home economics teachers are attempting to meet these needs more completely through joint programs, the movement should be encouraged in every way possible.

Need for Further Study

While this study has shown that agriculture and home economics teachers can and have worked together in attempting to meet pupil needs, and while this study has dealt largely with meeting these needs through an "exchange of classes," this and other studies indicate that greater service can be rendered through joint programs than through merely exchanging classes. Further study is needed to help agriculture and home economics teachers in formulating and executing methods adapted to meeting individual, home and community needs through joint programs.

If we accept the individual as the unit about which a school program should be planned, then agriculture and home economics teachers need to understand more fully how they may incorporate their joint vocational program in the more ideal joint school program. They will need to know in what ways they may best cooperate with other teachers in the school in making the school program a well rounded one for the individual. Such a study would be welcomed by teachers who are thinking along these lines.

Throughout this study there arose the question, "Who is best able to determine the real needs of the pupils?" The question also arose as to whether the girls should have a part in determining boys' needs, or if boys should help determine girls' needs. Also, what active part parents should have in determining these needs. If a study could be made which would answer one or more of these questions, it would be decidedly worth while.

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APPENDIX

QUESTIONNAIRE FORM I FOR AGRICULTURE BOYS

Name of School_____ County_____

Do you live in country or city_____ Year in School_____

Occupation of Parent or Guardian_____

Check with a plus sign the following jobs which you think should be taught the boys by the home economics teacher in the exchange of classes:

1. Camp Cookery _____
2. How to prepare meals for an invalid _____
3. A balanced diet for an athlete _____
4. Selection of food in relation to health _____
5. Food costs _____
6. Carving, and serving food at the table _____
7. The time element in food preparation _____
8. Storing foods _____
9. Learning table etiquette _____
10. Floor plans for a home _____
11. Appreciating convenient rooms _____
12. Kitchen planning and arrangement _____
13. Care and selection of kitchen utensils _____
14. Washing dishes _____
15. Appreciating labor-saving devices _____
16. Responsibilities of the man in the home _____
17. Cooperating in home activities _____
18. Caring for young children _____
19. Caring for sick members of the family _____
20. Problems of sanitation _____
21. Administering first aid _____
22. Importance of sleep and recreation _____
23. Importance of bathing and cleanliness _____
24. Sewing on buttons _____
25. Pressing one's clothes _____
26. Cleaning one's clothes _____
27. Making laundry bags _____
28. Cost of clothing _____
29. Study of textiles _____
30. Personal grooming _____
31. Color and color schemes in men's dress _____
32. Budgeting income _____
33. Appreciating good books and pictures _____
34. Duties of the host _____
35. Canning and preserving foods _____
36. Making candy _____
37. How to select choice cuts of meat _____
38. Hotel menus _____
39. Training children in habits and character _____

QUESTIONNAIRE FORM I FOR AGRICULTURE BOYS

40. Course for a caterer _____
41. Refrigeration _____
42. Good manners for every occasion _____

List any other jobs not given above which you think should be given by the home economics teachers to boys in the exchange of classes with the agriculture teachers:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

QUESTIONNAIRE FORM II FOR HOME ECONOMICS GIRLS

Name of School_____ County_____

Do you live in country or city_____ Year in school_____

Occupation of Parent or Guardian_____

Check with a plus sign the jobs which you think should be taught by the agriculture teacher to the high school girls:

1. Planning a year-round garden _____
2. How to grow vegetables in the home garden _____
3. Planning a year-round home orchard _____
4. Growing of fruits for home use _____
5. How to graft and bud fruit trees _____
6. How to propagate grapes _____
7. How to control insects and diseases in the home orchard _____
8. How to control insects and diseases in the home garden _____
9. Home beautification _____
10. Identification, uses and propagation of common shrubs _____
11. Pruning and caring for the shrubbery _____
12. Planting and care of a lawn _____
13. Identifying and determining the suitability of shade trees for the home grounds _____
14. The setting and care of shade trees _____
15. Growing of flowers _____
16. Advantages and disadvantages of farm life _____
17. Family and home relationships _____
18. Appreciating farm life and farmer's problems _____
19. Simple farm accounting _____
20. Making, uses for, and application of whitewash _____
21. Uses and application of paints, varnishes and enamels _____
22. Refinishing old floors _____
23. How to clean wall paper _____
24. Calculating the amount of paper needed for a room _____
25. How to paper a room _____
26. Determining the importance of poultry on the farm _____
27. Poultry houses and equipment needed on the home farm _____
28. Incubation and brooding of baby chicks _____
29. Feeding for egg production _____
30. Culling the poultry flock _____
31. Controlling insects and diseases of poultry _____
32. Handling of eggs for high quality _____
33. Farm sanitation necessary in growing livestock and poultry _____
34. How to select a good dairy cow _____
35. Feeding and care of the dairy cow _____
36. Making butter on the farm _____

QUESTIONNAIRE FORM II FOR HOME ECONOMICS GIRLS

37. Production of clean milk on the farm _____
38. Objectives in cultivating crops, gardens and flowers _____
39. The making of an ideal seed bed for crops, gardens, etc. _____
40. General repair of furniture, screens and doors _____
41. Survey of farming conditions as they exist in own county _____
42. Sharpening knives and scissors _____
43. Soldering utensils _____
44. Repairing faucets _____
45. Fixing broken lamp cords, broken fuses, and minor electrical equipment _____
46. Value and cost of electricity in the home _____
47. Making a flower box or some simple article involving the use of common carpenter's tools _____
48. Fertilizers for the garden and orchard _____
49. Soil conservation and its relationship to improved home and farm conditions _____
50. Importance of water in growing plants. How to water flowers _____

List any other jobs not given above which you think should be given by the agriculture teachers to girls in the exchange of classes with the home economics teachers:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

QUESTIONNAIRE FORM III
FOR BOTH AGRICULTURE AND HOME ECONOMICS TEACHERS

The following questionnaire is to be used for the basis of determining a course of study for boys and girls in the exchange of classes between the home economics and agriculture teachers in the State of Tennessee. Please fill in the blanks and return to W. S. Cloys, Ripley, Tennessee, at your earliest convenience.

Name of school in which you are teaching_____

County_____

Number of years you have exchanged classes with Agriculture or Home Economics Department_____

Did you exchange classes with agriculture or home economics teacher this year_____

List the jobs you taught the girls or boys in the exchange of classes:

Check with a plus sign the jobs which you think should be taught by the agriculture teacher to the high school girls:

1. Planning a year-round garden _____
2. How to grow vegetables in the home garden _____
3. Planning a year-round home orchard _____
4. Growing of fruits for home use _____
5. How to graft and bud fruit trees _____
6. How to propagate grapes _____
7. How to control insects and diseases in the home orchard _____
8. How to control insects and diseases in the home garden _____
9. Home beautification _____
10. Identification, uses and propagation of common shrubs _____
11. Pruning and caring for the shrubbery _____
12. Planting and care of a lawn _____
13. Identifying and determining the suitability of shade trees for the home grounds _____
14. The setting and care of shade trees _____
15. Growing of flowers _____

QUESTIONNAIRE FORM III
FOR BOTH AGRICULTURE AND HOME ECONOMICS TEACHERS

16. Advantages and disadvantages of farm life _____
17. Family and home relationships _____
18. Appreciating farm life and farmer's problems _____
19. Simple farm accounting _____
20. Making, uses for, and application of whitewash _____
21. Uses and application of paints, varnishes and enamels _____
22. Refinishing old floors _____
23. How to clean wall paper _____
24. Calculating the amount of paper needed for a room _____
25. How to paper a room _____
26. Determining the importance of poultry on the farm _____
27. Poultry houses and equipment needed on the home farm _____
28. Incubation and brooding of baby chicks _____
29. Feeding for egg production _____
30. Culling the poultry flock _____
31. Controlling insects and diseases of poultry _____
32. Handling of eggs for high quality _____
33. Farm sanitation necessary in growing livestock and poultry _____
34. How to select a good dairy cow _____
35. Feeding and care of the dairy cow _____
36. Making butter on the farm _____
37. Production of clean milk on the farm _____
38. Objectives in cultivating crops, gardens and flowers _____
39. The making of an ideal seed bed for crops, gardens, etc. _____
40. General repair of furniture, screens and doors _____
41. Survey of farming conditions as they exist in own county _____
42. Sharpening knives and scissors _____
43. Soldering utensils _____
44. Repairing faucets _____
45. Fixing broken lamp cords, broken fuses, and minor electrical equipment _____
46. Value and cost of electricity in the home _____
47. Making a flower box or some simple article involving the use of common carpenter's tools _____
48. Fertilizers for the garden and orchard _____
49. Soil conservation and its relationship to improved home and farm conditions _____
50. Importance of water in growing plants. How to water flowers _____

List any other jobs not given above which you think should be given by the agriculture teachers to girls in the exchange of classes with the home economics teachers:

1.

2.

QUESTIONNAIRE FORM III
FOR BOTH AGRICULTURE AND HOME ECONOMICS TEACHERS

Check with a plus sign the following jobs which you think should be taught the boys by the home economics teacher in the exchange of classes:

1. Camp Cookery _____
2. How to prepare meals for an invalid _____
3. What makes a balanced diet for an athlete _____
4. Selection of food in relation to health _____
5. Food costs _____
6. Carving and serving food at the table _____
7. The time element in food preparation _____
8. Storing foods _____
9. Learning table etiquette _____
10. Floor plans for a home _____
11. Appreciating convenient rooms _____
12. Kitchen planning and arrangement _____
13. Care and selection of kitchen utensils _____
14. Washing dishes _____
15. Appreciating labor-saving devices _____
16. Responsibilities of the man in the home _____
17. Cooperating in home activities _____
18. Caring for young children _____
19. Caring for sick members of the family _____
20. Problems of sanitation _____
21. Administering first aid _____
22. Importance of sleep and recreation _____
23. Importance of bathing and cleanliness _____
24. Sewing on buttons _____
25. Pressing one's clothes _____
26. Cleaning one's clothes _____
27. Making laundry bags _____
28. Cost of clothing _____
29. Study of textiles _____
30. Personal grooming _____
31. Color and color schemes in men's dress _____
32. Budgeting income _____
33. Appreciating good books and pictures _____
34. Duties of the host _____
35. Canning and preserving foods _____
36. Making candy _____
37. How to select choice cuts of meat _____
38. Hotel menus _____
39. Training children in habits and character _____
40. Course for a caterer _____
41. Refrigeration _____
42. Good manners for every occasion _____

List any other jobs not given above which you think should be given by the home economics teachers to boys in the exchange of classes with the agriculture teachers: