To the Graduate Council:

I am submitting herewith a thesis written by Shirley Fay Miller entitled "Comparison of Knowledge and Participation Levels of Explorer and Junior 4-H Members in Open Area Classrooms with Those in Self-Contained Classrooms in Davidson County, Tennessee." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Extension.

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COMPARISON OF KNOWLEDGE AND PARTICIPATION LEVELS OF EXPLORER AND JUNIOR 4-H MEMBERS IN OPEN AREA CLASSROOMS WITH THOSE IN SELF-CONTAINED CLASSROOMS IN DAVIDSON COUNTY, TENNESSEE

A Thesis

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Shirley Fay Miller

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ABSTRACT

The purpose of this study was to compare the knowledge and participation levels of explorer and junior 4-H members in open area classrooms with those in self-contained classrooms in Davidson County, Tennessee, to determine if the Extension teaching methods presently being used were equally effective in the two types of classroom situations.

The 993 boys and girls involved in the study were fourth, fifth, and sixth grade students in the Metropolitan Nashville-Davidson County, Tennessee School System. Information was secured by the completion of a 50 question questionnaire.

Analyses were conducted in terms of numbers and percents; the Chi square (x^2) test was used to determine the significance of the difference found in the 4-H members in the two types of classroom situations. The observed differences which achieved the .05 level were accepted as being statistically significant.

Significant findings of the study were:

1. The 4-H'ers in the self-contained classrooms attended more 4-H meetings than did those in the open area classrooms.

2. A larger percentage of 4-H'ers in the self-contained classrooms participated in the local public speaking contest.

3. Significantly more 4-H'ers in the self-contained classrooms participated in the first local demonstration contest.

4. A significantly higher percentage of 4-H'ers in the self-contained classrooms participated in the art poster contest.

5. Significantly more 4-H'ers in the open area classrooms participated in the dairy poster contest.

6. A higher percentage of the respondents in the self-contained classrooms were members of 4-H Clubs organized in October or November of 1974; none of the respondents in the open area classrooms were members of 4-H Clubs organized in October or November of 1974. All of these clubs were organized in January of 1975 after the initiation of the urban 4-H program and the addition of six new 4-H workers.

7. Significantly more of the self-contained classroom 4-H'ers planned to participate in other upcoming 4-H activities.

8. A higher percentage of the 4-H'ers in the self-contained classrooms planned to enter at least one upcoming 4-H activity.

9. Significantly more of the 4-H members in the self-contained classrooms knew the 4-H pledge.

10. Significantly more of the 4-H members in the open area classrooms knew the grades in school which had organized 4-H Clubs.

11. Significantly more of the 4-H members in the self-contained classrooms knew which officers the 4-H Clubs had.

12. Significantly more of the 4-H members in the self-contained classrooms knew the meaning of the new labeling symbol found on consumer packages.

13. Significantly more of the 4-H members in the self-contained classrooms reported that they had made items from their 4-H project books.

Implications and recommendations also were made.

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CHAPTER I

THE PROBLEM AND ITS SETTING

I. INTRODUCTION

The education of today's youth is the foundation for tomorrow's progress and democracy (41:7).* It is therefore a subject which deserves much attention and study. On May 18, 1914, a most unique and distinctive system of voluntary, practical education was given the support it needed to make it a permanent part of the American scene (33:124). This support was provided in the form of the passage of the Smith-Lever Act which provided guidelines for the establishment of the Cooperative Extension Service (42:23). One phase of the informal educational activities of the Cooperative Extension Service is the 4-H Club Program (6:1). It has been reported to be one of the most successful phases of the Extension movement (27:vii). Will Rogers was one of the many impressed by 4-H Club work. When he became acquainted with the 4-H Club he wrote that "somebody was inspired when they found that" (20:5).

The development of boys and girls into responsible, well-adjusted, public spirited, useful and capable citizens is the basic purpose of 4-H Clubs (27:2, 22:40, 34:264). The four H's in the 4-H Club name and symbol stand for Head, Heart, Hands, and Health. They represent

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*Numbers in parentheses refer to alphabetically listed items in the bibliography; those after the colon refer to page numbers.

the four-fold training and development that club members undergo which helps to prepare them for self-government, self-control, and self-help, thereby making them living, thinking persons (43:5, 37:4).

In order for the 4-H Club Program to meet all of the objectives set forth for the development of youth, it obviously must have a well-planned, efficient and effective program.

II. THE NEED FOR THE STUDY

Each 4-H Club Program needs to be continuously, informally evaluated and periodically, formally evaluated to determine if its guidelines and objectives are being met. The Davidson County 4-H Club Program experienced a large increase in staff and, therefore, a large increase in 4-H Club members when the urban 4-H program was initiated. Many clubs were added in schools which had open area classrooms. The 4-H staff needed to be able to deal with this situation since the 4-H Clubs met on a classroom basis. The staff needed to find effective methods of conducting 4-H Club meetings and reaching youth in the open area classroom situations as well as in the self-contained classroom situations.

III. STATEMENT OF THE PROBLEM

In the 1974-75 academic year, there were 97 elementary schools, 22 junior high schools, and 16 high schools in the Metropolitan Nashville-Davidson County Public School System, in addition to a large number of private and parochial schools; therefore, it was not possible for the

4-H staff to conduct 4-H Clubs in all of the schools. At the time of this study, there were 250 4-H Clubs with approximately 8,000 4-H members in Davidson County. The school system consisted of traditional schools with self-contained classrooms and newer schools with the open area classrooms. Prior to the initiation of the urban 4-H program and the subsequent increase in the 4-H staff, almost all of the Davidson County 4-H Clubs were conducted in the traditional schools with the self-contained classrooms. As the expanded staff discussed urban 4-H work with school principals, they realized the problem of having 4-H Clubs in both the open area and self-contained classroom situations.

At that point, the problem of how to conduct 4-H Club meetings effectively in both situations was discussed. Since the boys and girls in Davidson County were bused to different schools within the county to provide racial balance, some schools had only one grade level; therefore, brothers and sisters in elementary school may not have even gone to the same school. The 4-H staff wanted to provide the same program to all 4-H members in the county and especially to all 4-H members in each family; therefore, it was decided to conduct 4-H meetings using the same general procedure in both open area and self-contained classroom clubs.

The problem facing the staff was to determine whether or not the methods and procedures used were equally effective in the two classroom situations. The approach was to compare 4-H members in the two classroom situations as to their knowledge about topics taught at the 4-H Club meetings.

IV. PURPOSE OF THE STUDY

The overall purpose of this study, then, was to compare 4-H members who attended meetings held in the open area classrooms with those who attended meetings held in the self-contained classrooms to determine differences in members' knowledge and in their degree of participation in 4-H activities and contests. The specific objectives were:

1. To compare the 4-H members in the open area classrooms with those in the self-contained classrooms as to their background information.

2. To compare the 4-H members in the open area classrooms with those in the self-contained classrooms as to their participation in 4-H activities and contests.

3. To compare the 4-H members in the open area classrooms with those in the self-contained classrooms as to their knowledge of 4-H facts and knowledge about other subjects discussed at 4-H meetings during the 1974-75 school year.

V. LIMITATIONS OF THE STUDY

Data for the study were secured in Davidson County, Tennessee, from third, fourth, fifth, and sixth grade boys and girls.

The study was limited to two dependent variables and sixty-nine independent variables. The dependent variables were those concerning the type of school classroom situation in which the 4-H'ers conducted their monthly 4-H Club meetings (i.e., open area classrooms and

self-contained classrooms). The independent variables were classified into three major groups: (1) background information (22 variables), (2) participation in 4-H activities and contests (22 variables), and (3) knowledge of 4-H facts and subjects presented at 1974-75 4-H Club meetings (25 variables). It was decided that the questionnaire should be limited in length so that it could be administered in one class period which varied from 45 to 60 minutes. It was further decided that the population to be questioned should be limited to 41 classrooms in seven schools. The schools selected were Cora Howe, Fall Hamilton, Glengarry, Goodlettsville Elementary, Paragon Mills, Pennington, and Richland.

VI. METHOD OF INVESTIGATION

The Population and Sample

The population of the study included all the boys and girls in the fourth, fifth, and sixth grades in the Metropolitan Nashville-Davidson County, Tennessee, elementary schools which had the 4-H Club Program and all third graders in the schools in that system with the 4-H Club Program which combine third and fourth graders in the same classrooms. The seven schools selected for the sample were Cora Howe, Fall Hamilton, Glengarry, Goodlettsville Elementary, Paragon Mills, Pennington, and Richland. These schools all had organized 4-H Clubs during the 1974-75 academic year.

The sample included the 993 third, fourth, fifth, and sixth grade boys and girls who were present on the days the questionnaires were

administered. Ten questionnaires were chosen in a random sample from each of the 32 classrooms in the seven schools when the questionnaires were coded. Thus a total of 320 4-H'ers are represented in the tables which follow (170 from self-contained classrooms and 150 from open area classrooms).

Development of the Interview Schedule

The first step in the development of the questionnaire was to review those available from previous similar studies. Based upon the questions and ideas gained from these questionnaires (30, 39, 38), suggestions from faculty advisors, and experience in working with 4-H members, a questionnaire with 50 questions was designed (a copy of the questionnaire is included in the appendix).

Collection of Data

Prior to the collection of the data, the purpose of the study, the use to be made of the data, and the procedure to be followed in collecting the data were explained to the Director of Research and Evaluation of the Metropolitan Nashville-Davidson County School System. After obtaining permission from him, the principals of the seven elementary schools which had been selected for this study were contacted. The purpose of the study, the use to be made of the data, and the procedure to be followed in collecting the data were explained to the principals. A schedule for conducting the questionnaires during school hours was developed with each school principal.

The questionnaires were completed by the 4-H'ers in both the open area classrooms and the self-contained classrooms in May 1975. In the

self-contained classrooms, the questionnaires were administered by the Extension agent in six of the classrooms and by the teachers in 11 of the classrooms. In the open area classrooms, the questionnaires were administered by the Extension agent in three of the classrooms and by the teachers in the other 14 classrooms. The individual school principals and teachers made the final decision at each school as to the manner in which the questionnaires would be administered. A total of 993 boys and girls completed a questionnaire.

Analysis of Data

The completed questionnaires were coded, scored, and responses were recorded on data sheets. Data were then punched on computer cards.

Data were summarized in three tables. Frequencies and percents were used to compare 4-H members in the open area classroom situations with those in the self-contained classroom situations as to their background information, participation in 4-H activities and contests, and knowledge of 4-H facts and selected subject matter information which had been presented at previous 4-H Club meetings.

The Chi square (x^2) test was used to determine the significance of observed differences in the 4-H members in the two types of classroom situations. Differences which achieved the .05 level were accepted as being statistically significant. All computations were made by the University of Tennessee Computing Center.

VII. DEFINITION OF TERMS

In order that the author and reader may have a common understanding of terms used in the study, certain terms were defined as follows:

Open Area Classroom. In this study an open area classroom refers to a large room in a school which had few interior walls or teaching barriers between each teacher's area or station. There were from six to 12 teachers in this large area and each teacher had approximately 30 students. Each teacher and set of students had a certain section of the room designated as their particular area or classroom. The only separations between these classrooms were low bookcases or other low furniture. Members of each class could easily see and hear each other. Teachers usually worked with their own students separately, however two or more classrooms were combined for some sessions occasionally. Teachers in the various areas were often teaching a different subject and/or using a different teaching method (3:291).

Self-Contained Classroom. The self-contained classrooms were smaller and the teacher had approximately 30 students who spent from one class period to the entire day together. The room was completely separated from the other classrooms by four walls. Occupants of this room could not see occupants of the other classrooms and usually could not hear what was happening in the other rooms.

CHAPTER II

REVIEW OF LITERATURE

I. INTRODUCTION

Literature pertaining to 4-H Club meetings in open area and self-contained classrooms could not be found; however, considerable literature was found concerning education and learning needs with an emphasis on these two different classroom situations. The most pertinent findings were included in this review. Study findings were organized and reported under the following major headings: (1) principles of teaching and learning, (2) concepts of open area and self-contained classrooms, (3) open area versus self-contained classrooms, and (4) implications for 4-H Club work.

From the very beginning of 4-H Club work, the essential objectives have been based on the goals of optimum development of each boy and girl; therefore, the central concern has been to provide educational experiences which will help the 4-H'ers be well adjusted, competent, and responsible (34:264).

One of the main goals of 4-H Club meetings then is education of the boys and girls. In order to be an effective teacher, 4-H agents must communicate with the youth. Teaching depends upon communication. If the teacher or 4-H agent has prepared his subject matter well but cannot communicate with the boys and girls, he has failed as a teacher.

Communication is the transmission of thought from one mind to others and is essential in a teaching-learning situation (19:97).

Mander states that "Extension education is essentially a process of communication - communication of ideas and skills between and among people" (28:105). Since communication is essential to learning, it is important for all 4-H agents to know whether or not they are communicating with their members. This was the overall question to be answered by this study. The Davidson County 4-H Staff questioned the effectiveness of their communication with 4-H members in the open area classroom 4-H Clubs.

The schools of today are varied; they are no longer carbon copies of each other. They are in a state of reform and change. New innovations and new programs are being introduced into most school systems. It is felt by many that different children learn differently. They feel that children vary in the times that they learn and in the ways that they learn (36:7). It is also a matter of common observation that people differ in the capacity to become educated (18:119). The traditional academic program in the American public schools has been attempting to teach every child at the same time in the same way; therefore, educators are searching for a variety of learning models which will meet a variety of learning needs (36:7-8). Thus we have the development of open schools, schools-without-walls, and other models which are referred to as alternative schools (36:14).

The term alternative public school, as used herein, refers to any school which provides alternative learning experiences to those provided

by the conventional schools in the community and which is available by choice and at no extra cost to every family in the community. The conventional school still exists even though it is being somewhat replaced by the above alternative school types and it even becomes one of the options when a community has several optional alternative public schools available (36:14-15).

II. PRINCIPLES OF TEACHING AND LEARNING

According to Baskin, "it is not possible to teach anyone anything; it is only possible to arrange things so that he may learn"; his theory adds support to the surge toward innovation in education which places the student more on his own to learn at his own pace the things for which he has an interest and motivation (5:50). Mursell's philosophy is that "successful teaching is teaching that brings about effective learning" (29). "Learning takes place through the experiences which the learner has; that is, through the reactions he makes to the environment in which he is placed," stated Tyler. He further stated that "learning takes place through the active behavior of the student" (1:11). Postlethwait, Novak, and Murray agreed with this theory by stating that "learning is an activity done by an individual and not something done to an individual" (1:11). Klasek pointed out that the 4-H Clubs of American have as its motto, "Learn by Doing" and that educators realize that learning occurs best when the learner is actively involved in the performance of the task. He stated that the principal role of the teacher is the selection of experiences which will help achieve his objectives (23:24).

The 4-H Club learn-by-doing principle of teaching in which members learn by "seeing, hearing, doing, and telling others how to do a job" (43:16) agrees with the theory that the "learning process is more readily assimilated if it appeals to the mind, eyes, and ears simultaneously" (27:45). Crout stated that this learn-by-doing method is the best way for high school students as well as 4-H members to learn (12:7). John Dewey listed the learn-by-doing method as the way to learn when he introduced seven basic principles of education in the early 20th Century (8:4). Tyler stated that it is necessary for a person to think, feel, and act to learn and that "he can only learn the things that he is doing, ways he is thinking, feeling or acting" (40:59-62). Aglesworth believed that 4-H provided other learning opportunities and that these were: learning to work with people, to share in their achievements, learning with and from them, building others' personalities into his life, expanding his own personality and achieving real love for someone else (2:21).

Education is being viewed by many now as a lifelong process; it is no longer being viewed as a place-bound, time-bound process. Many educators today have enlarged their definition of education also so that it encompasses more than the conventional academic skills and subject matter. They have included in their meaning of education the development of aesthetic appreciation and analytical modes of thinking; the assimilation of relevant knowledge and information; the formation of values, attitudes, and aspirations; and the acquisition of occupational household skills (11:9-10).

III. CONCEPTS OF OPEN AREA AND SELF-CONTAINED CLASSROOMS

The study of the open area classroom was a most confusing and frustrating one because different authors used so many varied interpretations, connotations, definitions, and even terms. Some authors referred to the same terms but defined them differently; other authors used different terms but defined them the same.

In his book, the Dictionary of Education, Good defined a classroom "as a room in which students meet for instruction by lecture, discussion, and other means, under the direction of an instructor" (16:76). In the present study, an open area classroom refers to a large room in a school which had six to 12 teachers in it each with approximately 30 students. Each teacher and set of students had a certain section of the room designated as their particular area or classroom. There were few, if any, interior walls and teaching barriers were at a minimum between the teachers' areas (3:291). The individual teachers' areas or classrooms were separated by low bookcases and other furniture which did not prevent easy access or visual and auditory stimuli from one area to another (17:577-8). The teachers worked with their own students separately in most cases; however, they combined two or more groups occasionally for some sessions. Teachers in the various areas were often involved in teaching a different subject and/or using a different teaching method. The teachers in the open area classrooms had the option of using the newer open education approach to teaching or the traditional and highly structured approach (3:291).

Armstrong defined the term open space as having reference to a "particular physical environment" (3:291) and in this study the two terms open area and open space are wed synonymously. He defined open education as a method of organizing educational experiences for youngsters within a physical environment (3:291). Seif stated that there are many different ideas about the definition of open education and many different ways in which it is practiced; however, he said, that five major characteristics emerge from this diversity. The characteristics are: an emphasis on individualized learning, an emphasis on choice, an emphasis on increasing the willingness of children to learn, an emphasis on developing children's thinking skills, and an emphasis on creating self-discipline and independence (35:1). Other terms referred to by other authors were openrooms and openspace (10), open classrooms (35), open plan schools (14), and informal classrooms (15). Quasi-open area schools are ones which were built on a self-contained classroom basis but have open area additions (7:20). Schools-without-walls is not another term for open area classrooms which are ones which do not have walls between the individual classrooms. It is instead an approach in which learning activities are conducted throughout the community with much interaction between school and community (36:16).

Smith defined open schools as situations in which learning activities are individualized and organized around interest centers within the classroom or building (36:16). Gump stated that the term open schools refers to both the design of the school, a building with few interior

walls, and to the program, a school which furnishes ample choice of learning activities and goals for the students (17:575).

In addition to the variety of terms and definitions relating to openness in the classrooms, there is also diversity in the stages of openness and the methods of structuring activities (25:147). Openness applies to numerous phases of a learning situation and various dimensions of activities can be open while at the same time others can be closed (25:149). The degrees of openness depend upon the use of the four following aspects of openness: openness of assignment, openness of management (teacher's role), openness of program (child's role), and openness of process (child's role), and openness of product (25:148).

In physical terms the self-contained classrooms were smaller school rooms which contained one teacher with approximately 30 students. The room was completely separated from other classrooms by walls; therefore, very little auditory and no visual stimuli was allowed because of these barriers. According to the program definition, the self-contained classrooms followed a carefully prescribed curriculum which was divided into particular time blocks. All of the students were assigned to work on the same materials at the same time. Regular examinations, grades, and report cards were given and competence, hard work, and obedience were stressed (32:558).

Self-contained schools are also referred to as conventional (21), architecturally conventional (12), traditional and structured.

IV. OPEN AREA VERSUS SELF-CONTAINED

Educators have conflicting opinions on the open area classrooms versus the self-contained classroom debate. There has been much written on the advantages of the open areas, open schools, open education, etc. classrooms. Linden felt that one advantage of the open space schools over the self-contained ones is that all teachers are visible, thereby making it possible for teachers to observe and encourage each others instructional methods. Weaker teachers can identify the characteristics of the stronger teachers and thus become stronger themselves (24).

According to Seif, there are "ten important goals for students in an open classroom:

1. Learning to relate to and communicate with others.
2. Learning to cooperate and emphathize with one another.
3. Learning basic skills and academic subject matter.
4. Learning to be curious and to inquire.
5. Learning to solve problems individually and in groups.
6. Learning to like and enjoy learning.
7. Learning to feel at home in classrooms and the school environment.
8. Learning to be flexible and to adjust to change.
9. Learning about themselves and who they are.
10. Learning to function independently of adult direction." (35:5-6)

Openness creates a situation where students' individual needs are met and teachers are free from the limitations of traditional stand-up teaching (26:2). Learning centers or learning stations are a way of adding openness to a classroom. They can be used in the physically open classrooms or in the traditional self-contained classrooms. Marshall felt that they "decentralize and humanize a classroom" (26:11). He stated that students liked having the entire day's school work given to them

at one time and then being able to manage their own time. They are allowed to talk and work with their friends. This enables them to help and encourage each other which is one of the most effective teaching devices. They are not under the continuous supervision of their teacher; however, they can talk to the teacher privately and ask questions. Marshall felt that working on their own gave students a definite and concrete challenge. They also can enjoy free time after all of their work is completed. Most students, according to Marshall, feel that hard work and responsibility in exchange for some free time and a more casual setting is a fair deal (26:11). It is Norris's belief that happiness and high achievement are directly related (31:40).

Cooms and Neill agreed with Marshall in that children can learn responsibility and self-direction from the experiences and opportunities of openness. Freedom of choice from several alternatives is an important teaching tool in their opinion. They felt that children can learn as much from making incorrect choices as correct ones, from being wrong as being right, and even from poor experiences as well as from good ones (23:27).

Another advantage of openness is that the entire class does not have to wait for one student to understand the work which is too difficult for him (31:41).

There is also the other side of the question of openness in schools to consider, the disadvantages. One common argument against

openness is the lack of uniformity in the definition of terms used plus the vast number of different terms used. The variety of definitions encompasses the "utilization of physical space, of learning materials, of student-teacher time; individualized instruction; student-centered activities; self-pacing; and curriculum flexibility" (13:54). Each one of these then also has varying definitions and interpretations.

Crowl felt that one danger is that the innovation called the open classroom has been accepted in its entirity and that things which have proved to be sound educational ideas in the past have been rejected. He believed that this innovation is a fad, a new catchy idea which will encounter disenchantment like earlier educational movements. It was his opinion that argument, heated debate, and vigorous conflicts are likely over its definition and interpretations as it progresses and that during the choatic state resulting from this situation, educators will reject the whole idea and go to a new innovation (13:55).

Marshall stated that for an open classroom to be successful it must meet the following requirements: very special teachers, very special students who do not need constant supervision and help from the teachers and who can peacefully relate to each other and do not require strict discipline, individualized learning materials with simple and clear directions and interesting context so they free the teachers to meet individual needs, and support of parents, school administration, and community. Problems arise because the majority of textbooks do not meet the necessary requirements and nontextbook materials are not readily available; therefore, teachers must use their

own time, energy, and finances to find, prepare, and/or purchase these needed materials (26:5-6).

Many open classrooms concentrate on the so-called relevant course materials and individualized teaching; therefore, allowing some teachers to let the basics such as reading, English composition, spelling, and arithmetic to slide. Some parents, school boards, and even pupils are asking that schools return to the basic education in these areas and even to standards to behavior and stop experimenting. It is being found that many of today's youth cannot spell or do arithmetic. "For the past 10 years, average national scores on the Scholastic Aptitude Tests have fallen" reported Reader's Digest in February 1975 (4:150). Bowdoin College in Maine began a new procedure by admitting students without the usual requirement of college-board scores. They found that more than 10 percent of their freshmen were lacking in the basic English skills and that "they can't write three consecutive declarative sentences in the English language" (4:151).

In one study, however, no differences were found. The results of a study conducted to investigate differences in personality characteristics between open and traditional, high and low-rated primary teachers indicated that no significant personality differences existed. This study compared only teachers and not students (9:250).

V. IMPLICATIONS FOR 4-H CLUB WORK

The important question to 4-H agents is how does all of this affect them. Agents cannot change classroom situations in their county

but they can study and try to understand them. They can study and evaluate their 4-H program carefully. They can strengthen or revise existing programs if necessary to provide optimum learning situations and to fit into the school systems as smoothly as possible. They can institute new programs and methods where needed. The 4-H program needs to be flexible and to change to reflect the changing needs of the people and their changing situations. There is a continual need to update our teaching methods in Extension to reach the greatest number of people possible and to teach them as effectively as possible.

CHAPTER III

FINDINGS OF THE STUDY

The purpose of this chapter was to present and discuss the analysis of data relative to the comparison of 4-H members whose 4-H Club meetings were conducted in open area classroom situations with those conducted in self-contained clas-room situations. The variables used to compare members in the two types of club situations were organized into the following categories according to the purposes of the study: background information, 4-H participation, and 4-H knowledge variables. Data regarding each class of variables will be presented in a table and discussed in a separate section.

I. COMPARISON OF 4-H MEMBERS IN OPEN AREA WITH THOSE IN SELF-CONTAINED CLASSROOMS IN REGARD TO BACKGROUND INFORMATION

Section one compared 4-H members in open area with those in self-contained classrooms as to their background. Variables studied in this table were as follows: grade in school; sex; place of residence; scholastic grade received in school; number of years in 4-H; parents', brothers' and sisters' 4-H membership; and membership in other clubs which met during school and those which met outside school. Comparisons were made in terms of numbers and percents of 4-H members in each type of classroom and therefore, each type of 4-H Club situation. A marked

difference in the 4-H members was not expected on any of these variables. The fact that a 4-H'er was in an open area or in a self-contained classroom was not expected to have affected any of these variables; however, it was felt necessary to determine whether or not this was true.

Other background variables compared in this section were name of favorite club; reason it was chosen as the favorite club; things liked most about 4-H; whether or not the members would join 4-H next year if the meetings were held during school, after school, and at night; whether or not they were glad they had joined 4-H; and their perception of the attitudes of their mothers and fathers when they first joined 4-H. The members were expected to differ on these variables since the type of classroom situation and atmosphere could have an effect on the type of 4-H meeting conducted and the 4-H'ers' enjoyment of the meeting.

The purpose of this section was to establish if the 4-H members in the two types of classroom situations differed as to the aforementioned kinds of background variables in order to better interpret observed differences in knowledge scores which will be reported in a later section.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Grade in School, Sex, Place of Residence and Scholastic Grade in School

The purpose of this subsection was to compare 4-H members in the open area with those in self-contained classrooms as to grade in school, sex, place of residence and scholastic grades made in school.

Grade in school. Data presented in Table I showed that 17.3 percent of the respondents in the open area classrooms were in the third grade. This fact should be explained since 4-H is supposed to begin in the fourth grade. The reason for third graders being in 4-H was that in one school with open area classrooms third and fourth graders were in the same classrooms and the principal and teachers would not separate them for 4-H. The 4-H staff either worked with third and fourth graders together or neither one. There were not any third graders in 4-H in the self-contained classrooms because each classroom was composed of students in only one grade and the 4-H staff did not work in any third grade only rooms. They began with fourth graders as recommended by the State 4-H Staff. The majority of respondents in both classrooms were in the fourth grade; 42.7 percent in the open area and 58.8 percent in the self-contained classrooms.

Sex of respondent. As expected, the 4-H members in the two classroom situations did not differ as to sex. In the open area classrooms 48 percent of the members were male compared to 47.6 percent of those in the self-contained classrooms.

Place of residence. Table I revealed that more 4-H members in self-contained classrooms (11.2 percent) lived outside of town in the country and/or on farms than did those in the open area classrooms (0.7 percent). The open area classrooms were concentrated in the city, though both groups had a high percentage of 4-H'ers living in towns and thickly settled areas. One reason for this may have been that

Table I

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Background Information

Background Variables	Type of 4-H Club Classroom Situation: Open Area (N=150) Percent	Self-Contained (N=170) Percent
Grade in School		
Third	17.3	0.0
Fourth	42.7	58.8
Fifth	24.0	17.6
Sixth	16.0	23.5
Total	100.0	100.0
Sex of Respondent		
Male	48.0	47.6
Female	50.7	52.4
No response	1.3	0.0
Total	100.0	100.0
Place of Residence		
Town or city	97.3	72.4
Thickly settled area	2.0	16.5
Country, but not a farm	0.7	7.1
Farm	0.0	4.1
Total	100.0	100.0
Scholastic Grade in School		
A's	18.7	27.6
B's	12.0	50.0
C's	1.3	19.4
D's	0.0	1.8
F's	0.7	0.0
Other	61.3	0.0
No response	6.0	1.2
Total	100.0	100.0
Number of Years in 4-H		
One	96.0	85.3
Two	4.0	11.8
Three	0.0	2.9
Total	100.0	100.0

Table I (continued)

Background Variables	Type of 4-H Club Classroom Situation: Open Area (N=150) Percent	Type of 4-H Club Classroom Situation: Self-Contained (N=170) Percent
Parents' 4-H Membership		
One parent	9.3	8.2
Two parents	2.0	17.1
Neither parent	88.7	74.7
Total	100.0	100.0
Number of Brothers in 4-H		
None	75.3	72.9
One	22.0	20.0
Two	2.7	5.3
Three	0.0	0.6
Four	0.0	1.2
Total	100.0	100.0
Number of Sisters in 4-H		
None	74.0	72.4
One	22.7	20.0
Two	2.7	2.9
Three	0.0	3.5
Four	0.7	0.0
Five	0.0	0.6
Six	0.0	0.6
Total	100.0	100.0
Number of Clubs Belonged to Which Met during School		
None	99.3	95.9
One	0.7	4.1
Total	100.0	100.0
Number of Clubs Belonged to Which Met outside School		
None	87.3	87.6
One	12.7	11.8
Two	0.0	0.6
Total	100.0	100.0
Total Number of Clubs in School and out		
Zero	86.7	84.7
One	13.3	14.1
Two	0.0	1.2
Total	100.0	100.0

Table I (continued)

Background Variables	Type of 4-H Club Classroom Situation: Open Area (N=150) Percent	Self-Contained (N=170) Percent
Name of Favorite Club		
Scouts	3.3	4.7
4-H	5.3	6.5
Others (4)	2.1	1.8
Do not belong to more than one	84.7	80.0
No response	4.7	5.9
Total	100.0	100.0
Reason It Is Favorite Club		
Do interesting things and enjoy activities	0.7	5.3
Do more things	1.3	2.4
It's fun	2.0	2.9
Share	0.7	0.0
Tournaments and trophies	0.7	0.0
Big brother takes me places	0.7	0.0
Easiest	0.0	0.6
Most exciting	0.0	0.6
Go camping	0.0	0.6
No reason given	94.0	87.6
Total	100.0	100.0
What 4-H'ers Liked Most about 4-H		
Fun	26.0	31.8
Opportunity to be an officer and learn duties of officers	6.0	10.0
Met during school so miss class	30.7	15.9
Chance to learn about animals, plants, foods, etc.	24.7	20.0
Chance to give speeches and demonstrations	0.7	2.4
Chance to enter contests	2.7	9.4
Chance to be with friends	4.0	4.7
Other	0.0	1.8
No response	0.0	4.1
Total	100.0	100.0
Will Join 4-H Next Year If Meets during School		
Yes	73.3	84.7
No	24.0	15.3
No response	2.7	0.0
Total	100.0	100.0

Table I (continued)

Background Variables	Type of 4-H Club Classroom Situation: Open Area (N=150) Percent	Self-Contained (N=170) Percent
Will Join 4-H Next Year If Meets after School		
Yes	46.0	38.8
No	51.3	59.4
No response	2.7	1.8
Total	100.0	100.0
Will Join 4-H Next Year If Meets at Night		
Yes	24.0	27.1
No	74.0	71.8
No response	2.0	1.2
Total	100.0	100.0
Glad Joined 4-H This Year		
Yes	89.3	88.2
No	7.3	8.8
No response	3.3	2.9
Total	100.0	100.0
Will Tell Friends to Join 4-H		
Yes	74.7	84.7
No	24.7	14.1
No response	0.7	1.2
Total	100.0	100.0
Number of Years Plan to Remain in 4-H		
Zero	15.3	18.8
One	19.3	17.1
Two	22.0	24.7
Three	14.0	13.5
Four	4.7	3.5
Five	4.7	2.9
Six	3.3	3.5
Seven	4.0	2.9
Eight	6.7	1.8
Nine	6.0	11.2
Total	100.0	100.0

Table I (continued)

Background Variables	Type of 4-H Club Classroom Situation	
	Open Area (N=150) Percent	Self-Contained (N=170) Percent
Attitude of Mother When Her Child Joined 4-H		
Very happy	74.0	71.8
Uninterested	13.3	24.7
Unhappy	2.0	1.8
No response	10.7	1.8
Total	100.0	100.0
Attitude of Father When His Child Joined 4-H		
Very happy	56.7	62.9
Uninterested	21.3	28.8
Unhappy	1.3	0.6
No response	20.7	7.1
Total	100.0	100.0

rural schools have been slower to put the new educational innovation into practice; therefore, they have fewer schools with open area classrooms.

Scholastic grade in school. Table I compared 4-H'ers as to the traditional grading system of A, B, C, etc. versus the newer system of nongrading. In the open area classrooms 61.3 percent of the respondents stated that their scholastic grade was "other" rather than A, B, C, etc. No one in the self-contained classrooms stated this fact; 98.8 percent of these respondents received a letter grade from A to D. Schools with the open area classrooms were more innovative and thus did not give letter grades to the students; these students work at their own pace and ability and achieve accordingly but are not graded as such. Observed differences in 4-H'ers as to scholastic grade received in school were due to the type of grading system used and not the letter grade received.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Number of Years in 4-H, Parents' 4-H Membership, Number of Brothers in 4-H, and Number of Sisters in 4-H

The purpose of this subsection was to compare 4-H members in the open area with those in the self-contained classrooms as to the number of years they had been 4-H members, and the number of years their parents, brothers and sisters had been 4-H members.

Number of years in 4-H. Data in Table I also showed that 4 percent of the 4-H'ers in the open area classrooms had been in 4-H more than

one year; whereas, 14.7 percent of the 4-H'ers in the self-contained classrooms had been in 4-H for the same length of time. This difference was probably due to the fact that 4-H Clubs have been in the schools with open area classrooms only a relatively short period of time.

Parents' 4-H membership. There was little difference in the 4-H'ers in the two types of classrooms when the 4-H membership of one parent was considered (9.3 percent versus 8.2 percent reported only one parent had been a 4-H'er). However, a much larger variation was observed when 4-H membership of both parents was considered. Only 2 percent of 4-H'ers in open area classrooms reported that both parents were former 4-H members compared with 17.1 percent of 4-H'ers in the self-contained classrooms. These differences may be due to the more rural location of the schools having self-contained classrooms.

Number of brothers and sisters in 4-H. The variance in these two variables was very small as was expected; however, a smaller percentage of the 4-H'ers in the self-contained classrooms did not have any brothers and sisters who were or had been in 4-H. These data showed a tendency for 4-H'ers in the self-contained classrooms to have a larger number of brothers and a larger number of sisters who were or had been a 4-H member than did 4-H'ers in the open area classrooms. These differences, again, may be due to the rural versus urban location of the schools.

Comparison of 4-H Members in the Open Area with Those in Self-Contained Classrooms in regard to Number of Clubs Belonged to Which Met during School Hours, Number of Clubs Belonged to Which Met outside School, Total Number of Clubs in School and out, Name of Favorite Club, Reason It is Favorite Club, and What They Liked Most about 4-H

The purpose of this subsection was to compare 4-H members in the open area with those in the self-contained classrooms as to the number of clubs they belonged to which met during school hours, the number of clubs they belonged to which met outside of school, the total number of clubs they belonged to which met both in and out of school, the name of their favorite club, the reason it was their favorite club, and what they liked most about the 4-H Club.

Number of clubs belonged to which met during school. The 4-H'ers differed only slightly when the two groups were compared as to membership in other school clubs. Those in the self-contained classrooms belonged to more in-school clubs than did the 4-H'ers in the open area classrooms; 4.1 percent as compared to 0.7 percent, respectively. It was interesting to note that none of the members belonged to more than one other club which met during school hours.

Number of clubs belonged to which met outside school. Data in Table I, pages 24-28, also showed that 87.3 percent of the 4-H members in the open area classrooms did not belong to any clubs which met outside of school as compared to 87.6 percent of the 4-H members in the self-contained classrooms. These data indicated that a very small

percent of the 4-H'ers are participating in youth clubs either in the schools or outside the schools. Data also showed, as expected, that the classroom situation had no influence upon the 4-H'ers participation in other youth clubs.

Total number of clubs in school and out. Again, as expected from studying the two previous variables, there was little difference in the 4-H'ers in the two group situations regarding total club membership. In the open area classrooms 13.3 percent of the 4-H'ers belonged to only one club and 0.0 percent belonged to two clubs as compared to 14.1 percent of the 4-H'ers in the self-contained classrooms which belonged to one club and 1.2 percent which belonged to two clubs.

Name of favorite club. A higher percentage of 4-H'ers in both classroom situations chose 4-H over any other as their favorite club. Also the data indicated those in the self-contained classrooms to be slightly more favorable toward 4-H than those in the open area situation. However, this could be explained by the fact that a slightly higher percentage of 4-H'ers in the open area classrooms did not belong to more than one club and therefore could not have another favorite club.

Reason it is favorite club. The 4-H'ers in the self-contained classrooms, to a greater degree than the 4-H'ers in the open area classrooms, felt that their favorite club did more interesting things and that they enjoyed the activities (5.3 percent as compared to 0.7 percent).

What 4-H'ers liked most about 4-H. Four-H Club meetings held during school so the students missed classes was what the 4-H'ers in the open area classrooms liked most about 4-H (30.7 percent); whereas, only 15.9 percent of the 4-H'ers in the self-contained classrooms stated this reason. The 4-H'ers in the self-contained classrooms (31.8 percent) listed fun as what they liked most about 4-H; 26 percent of the 4-H'ers in the open area classrooms gave this as their reason. Fun was the second choice of the open area classroom 4-H'ers; 26 percent listed it as their reason 4-H was their favorite club. Both groups felt that 4-H was an opportunity to learn about animals, plants, foods, and other projects (open area classrooms, 24.7 percent, and self-contained classrooms, 20 percent). A higher percentage of the self-contained classroom students liked the chance to enter contests than did students in the open area classrooms (9.4 percent versus 2.7 percent, respectively).

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Will Join 4-H Next Year If It Meets during School Hours, Will Join 4-H Next Year If It Meets after School, Will Join 4-H Next Year If It Meets at Night, Glad Joined 4-H This Year, Will Tell Friends to Join 4-H, and Number of Years Plan to Remain in 4-H

The purpose of this subsection was to compare 4-H members in the open area classrooms with those in the self-contained classrooms as to whether or not they will join 4-H next year if it meets during school, after school, or at night; whether or not they were glad they joined 4-H this year; whether or not they will tell their friends to join 4-H; and the number of years they plan to remain in 4-H.

Will join 4-H next year if it meets during school hours. A higher percentage of the 4-H'ers in the self-contained classrooms (84.7 percent) stated that they planned to join a 4-H Club the next year if it met during their school hours than did the 4-H'ers in the open area classrooms (73.3 percent). One out of four 4-H'ers in the open area classrooms did not plan to join a 4-H Club the next year.

Will join 4-H next year if it meets after school. A higher percentage of 4-H'ers in the open area classrooms (46 percent) stated that they would join a 4-H Club the next year if it met after school than did 4-H'ers in the self-contained classrooms (38.8 percent); it should be observed also that fewer 4-H'ers in each classroom situation would join an after school club (46 percent of the open area and 38.8 percent of the self-contained) than would join a club which met during school hours (73.3 percent of the open area and 84.7 percent of the self-contained).

Will join 4-H next year if it meets at night. Little difference between the two groups was observed on the question of joining a night 4-H Club next year; 24 percent of the open area classroom 4-H'ers compared to 27.1 percent of the self-contained classroom 4-H'ers said they would join. The largest number of 4-H'ers would join 4-H Clubs which met during school, the next largest number would join 4-H Clubs which met after school, and the smallest number would join 4-H Clubs which met at night.

Glad joined 4-H this year. Data in Table I, pages 24-28, also showed that 89.3 percent of the 4-H members in the open area classrooms were glad that they joined 4-H as compared to 88.2 percent of the 4-H'ers in the self-contained classrooms. Less than 10 percent of each group seemed disappointed in their having joined their 4-H Clubs.

Will tell friends to join 4-H. A high percentage of each group indicated they would tell their friends to join 4-H; 84.7 percent of the 4-H'ers in the self-contained classrooms and 74.7 percent of the 4-H'ers in the open area classrooms; however, 10 percent more of the self-contained classroom 4-H'ers than of the open area classroom 4-H'ers would encourage friends to join a 4-H Club.

Number of years plan to remain in 4-H. Over 50 percent of the 4-H'ers planned to remain in 4-H less than three years. Of the 4-H'ers in the open area classrooms 6.7 percent planned to remain in 4-H eight years and 1.8 percent of the self-contained classroom 4-H'ers had this plan, but only 6 percent of the open area classroom 4-H'ers planned to remain in 4-H nine years as compared to 11.2 percent of the self-contained classroom 4-H'ers. However, when the 4-H'ers were compared as to the percent who would remain in 4-H eight or nine years, the differences between the two groups is small, 12.7 percent in the open area and 13 percent in the self-contained classrooms.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Attitude of Father When His Child Joined 4-H and Attitude of Mother When Her Child Joined 4-H

The purpose of this subsection was to compare the 4-H members in the open area with those in the self-contained classrooms as to the attitudes of their fathers and mothers when the 4-H'ers first joined 4-H.

Attitude of mother when her child first joined 4-H. Less than 2 percent of the 4-H'ers in each classroom situation felt that their mother was unhappy when they (the 4-H'er) joined 4-H. In the open area classrooms, 74 percent of the 4-H'ers felt that their mother was very happy that her child had joined 4-H compared to 71.8 percent of the 4-H'ers in the self-contained classrooms.

Attitude of father when his child joined 4-H. A higher percentage of 4-H'ers in each classroom situation felt that their father, compared to their mother, was uninterested when they (the 4-H'er) joined 4-H. Again the difference may be attributed to the high percentage (20.7 percent) of open area classroom 4-H'ers who did not respond to the question as compared to only 7.1 percent of the self-contained classroom 4-H'ers. A higher percentage of the 4-H'ers in the self-contained classrooms compared to those in the open area classrooms felt that their fathers were happy when they (the 4-H'ers) joined 4-H, 62.9 percent as compared to 56.7 percent, respectively.

II. COMPARISON OF 4-H MEMBERS IN OPEN AREA WITH THOSE IN SELF-CONTAINED CLASSROOMS IN REGARD TO PARTICIPATION IN 4-H ACTIVITIES AND CONTESTS

Table II compared the 4-H members in open area with those in self-contained classrooms as to their actual participation in 4-H activities and contests such as 4-H Club meetings attended; served as a 4-H officer; entered local and/or county public speaking, demonstration, art poster, dairy poster and breadbaking contests; and bicyle rodeo. It also compared the 4-H members in open area with those in self-contained classrooms as to the 4-H activities which they planned to enter in the near future such as the 4-H fair, camp, livestock shows, horticulture exhibits, and 4-H workshops.

Comparisons were made in terms of numbers and percents; the Chi square (x^2) test was used to determine the significance of the differences found in the two types of classroom situations. Chi square values which achieved the .05 level were accepted as statistically significant.

One purpose of Table II was to establish if the 4-H members in the two types of classroom situations differed as to participation in 4-H. This information was needed in order to help interpret differences observed in the knowledge scores to be analyzed and reported later.

Table II

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Participation in 4-H Activities and Contests

	Type of 4-H Club Classroom Situation					
	Total		Open Area		Self-Contained	
Participation Variables	No.	%	No.	%	No.	%
Participation						
Number of 4-H Meetings Attended			$x^2=40.96$, $p<.05$			
One	12	4	6	4	6	4
Two	4	1	2	1	2	1
Three	19	6	12	8	7	4
Four	41	13	30	21	11	7
Five	96	31	54	38	42	25
Six	64	20	23	16	41	24
Seven	77	25	16	11	61	36
Total	313	100	143	46	170	54
Served as a 4-H Officer			$x^2=0.02$, $p>.05$			
Yes	69	22	32	22	37	22
No	250	78	116	78	134	78
Total	319	100	148	46	171	54
Local Public Speaking Contest			$x^2=5.38$, $p<.05$			
Yes	42	13	12	8	30	18
No	277	87	136	92	141	83
Total	319	100	148	46	171	54
County Public Speaking Contest			$x^2=3.28$, $p>.05$			
Yes	12	4	2	1	10	6
No	307	96	146	97	161	94
Total	319	100	148	46	171	54
First Local Demonstration Contest (February)			$x^2=6.09$, $p<.05$			
Yes	30	9	7	5	23	14
No	289	91	141	95	148	87
Total	319	100	148	46	171	54
Second Local Demonstration Contest (April)			$x^2=0.15$, $p>.05$			
Yes	49	15	21	14	28	16
No	270	85	127	86	143	84
Total	319	100	148	46	171	54

Table II (continued)

Participation Variables	Type of 4-H Club Classroom Situation: Total No.	Total %	Open Area No.	Open Area %	Self-Contained No.	Self-Contained %
Participation (continued)						
First County Demonstration Contest (March)			$x^2=0.33$, $p>.05$			
Yes	7	2	2	1	5	3
No	312	98	146	99	166	97
Total	319	100	148	46	171	53
Second County Demonstration Contest (April)			$x^2=0.05$, $p>.05$			
Yes	6	2	2	1	4	2
No	313	98	146	99	167	98
Total	319	100	148	46	171	54
County Art Poster Contest			$x^2=15.94$, $p<.05$			
Yes	45	14	8	5	37	22
No	274	86	140	95	134	78
Total	319	100	148	46	171	54
County Dairy Poster Contest			$x^2=26.99$, $p<.05$			
Yes	61	19	47	32	14	8
No	258	81	101	68	157	92
Total	319	100	148	46	171	54
County Breadbaking Contest			$x^2=1.49$, $p>.05$			
Yes	12	4	3	2	9	5
No	307	96	145	98	162	95
Total	319	100	148	46	171	54
Bicycle Rodeo			$x^2=0.57$, $p>.05$			
Yes	22	7	8	5	14	8
No	297	93	140	95	157	92
Total	319	100	148	46	171	54
Total Activities			$x^2=5.08$, $p>.05$			
Zero	117	37	58	39	59	35
One	117	37	55	37	62	31
Two	40	13	20	14	20	12
Three	29	9	9	6	20	12
Four	9	3	4	3	5	3
Five	4	1	1	0.7	3	2
Six	2	0.6	1	0.7	1	0.6
Seven	1	0.3	0	0.0	1	0.6
Total	319	100	148	46	171	54

Table II (continued)

Participation Variables	Total No.	Total %	Open Area No.	Open Area %	Self-Contained No.	Self-Contained %
	Type of 4-H Club Classroom Situation					
Participation (continued)						
Club Organized in November 1974			$x^2=180.98$, $p<.05$			
Yes	127	40	0	0	127	74
No	191	60	148	100	43	25
Total	318	100	148	47	170	54
Attended Officer and Leader Training School			$x^2=1.58$, $p>.05$			
Yes	10	6	0	0	10	8
No	146	94	32	100	114	92
Total	156	100	32	21	124	80
Activities Planned to Enter Exhibit at County 4-H Fair			$x^2=0.17$, $p>.05$			
Yes	52	16	26	18	26	15
No	267	84	122	82	145	85
Total	319	100	148	46	171	54
4-H Camp			$x^2=0.09$, $p>.05$			
Yes	79	25	35	24	44	26
No	240	75	113	76	127	74
Total	319	100	148	46	171	54
Livestock Shows			$x^2=0.68$, $p>.05$			
Yes	20	6	7	5	13	8
No	299	94	141	95	158	92
Total	319	100	148	46	171	54
Horticulture Exhibit			$x^2=1.65$, $p>.05$			
Yes	37	12	13	9	24	14
No	282	88	135	91	147	86
Total	319	100	148	46	171	54
4-H Workshops			$x^2=0.00$, $p>.05$			
Yes	42	13	20	14	22	13
No	277	87	128	87	149	87
Total	319	100	148	46	171	54
Other			$x^2=7.16$, $p<.05$			
Yes	20	6	3	2	17	10
No	299	94	145	98	154	90
Total	319	100	148	46	171	54

Table II (continued)

Participation Variables	Type of 4-H Club Classroom Situation					
	Total		Open Area		Self-Contained	
	No.	%	No.	%	No.	%
Activities Planned to Enter (continued)						
Total Number of 4-H Activities Planned			$x^2=17.45$, $p<.05$			
Zero	149	47	82	55	67	39
One	110	35	36	24	74	43
Two	46	14	26	18	20	12
Three	10	3	2	1	8	5
Four	2	0.6	1	0.7	1	0.6
Five	2	0.6	1	0.7	1	0.6
Total	319	100	148	46	171	54

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to the Number of 4-H Club Meetings Attended and Served or Not as a 4-H Officer

The purpose of this subsection was to compare the 4-H members in open area with those in self-contained classrooms as to the number of 4-H Club meetings they had attended and whether or not they had served as an officer of a 4-H Club.

Number of 4-H Club meetings attended. Club meetings were conducted once a month in each type of classroom situation; however, the clubs were not organized in the open classrooms until January and the clubs in the self-contained classrooms were organized in October giving these 4-H'ers two extra opportunities (October and November) to attend club meetings. This fact was probably the main reason the 4-H'ers in the two types of classroom situations differed significantly as to the number of 4-H Club meetings attended. The 4-H'ers in the self-contained classrooms attended more 4-H meetings than those in the open area classrooms; this was shown by the significant difference ($p<.05$) between the number of 4-H Club meetings attended by the 4-H'ers in the two types of classroom situations.

Served as a 4-H officer. There was not a significant relationship ($p<.05$) between the classroom situation and whether or not the 4-H'ers had been an officer of their 4-H Club. The percentage of 4-H'ers who had served as an officer of their 4-H Club was exactly the same for both classrooms, 22 percent. The classroom situation did not

significantly influence the number of 4-H'ers who had served as a 4-H Club officer.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to 4-H'ers Participation in Local and County Public Speaking Contests, Two Local and Two County Demonstration Contests, County Art Poster Contest, County Dairy Poster Contest, County Bread-baking Contest, County Bicyle Rodeo, and Total Activities

The purpose of this subsection was to compare 4-H'ers in the open area with those in the self-contained classrooms as to their past participation in local and county 4-H activities and contests in Davidson County. The activities and contests involved were the public speaking, demonstration, art poster, dairy poster, breadbaking, and bicycle rodeo. The total activities participated in by 4-H'ers in the two groups were also compared.

Local and county public speaking contests. Eighteen percent of the 4-H'ers in the self-contained classrooms participated in the local public speaking contest as compared to only 8 percent of the 4-H'ers in the open area classrooms. These observed differences were significant at the .05 level. This difference may be explained, partly, by the fact that the 4-H Clubs in the open area classrooms were organized later in the year than the other clubs and therefore these 4-H'ers received less encouragement to enter the local public speaking contest. There was not a significant difference in the number of 4-H'ers in the two types of club situations who had participated in the county public speaking contest; 6 percent of the 4-H'ers in the self-contained

classrooms had participated as compared to 1 percent of the 4-H'ers in the open area classrooms.

Local and county demonstration contests. All 4-H members had an opportunity to participate in two local and two county demonstration contests; half of the 4-H projects were demonstrated at each contest. The 4-H'ers in the two types of classrooms differed significantly in their participation in the first local demonstration contest but did not differ significantly in the second local contest or in either of the two county contests. In the first local demonstration contest, significantly more 4-H'ers in the self-contained classrooms participated than 4-H'ers in the open area classrooms, 14 percent as compared to 5 percent, respectively.

County art poster and county dairy poster contest. The 4-H'ers in the two types of classroom situations differed significantly when tested by the Chi square test in their degree of participation in the county art poster and in the county dairy poster contests. A significantly higher percentage of 4-H'ers in the self-contained classrooms than in the open area classrooms participated in the art poster contest (22 percent as compared to 5 percent, respectively); whereas, more 4-H'ers in the open area classrooms participated in the dairy poster contest (32 percent as compared to 8 percent).

County breadbaking contest and county bicycle rodeo. The 4-H'ers in the two types of classroom situations did not differ significantly

in their participation in either the county breadbaking contest or in the county bicycle rodeo. In the breadbaking contest, 2 percent of the open area classroom 4-H'ers participated as compared to 5 percent of the self-contained classroom 4-H'ers. In the bicycle rodeo, 5 percent of the open area classroom 4-H'ers participated as compared to 8 percent of the self-contained classroom 4-H'ers.

Total activities. The 4-H members in the two types of classroom situations did not differ significantly when tested by the Chi square test as to the total number of activities participated in during the year.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Clubs Organized in November of 1974 and Attendance at County Officer and Leader Training School

The purpose of this subsection was to compare the 4-H members in the open area with those in self-contained classrooms as to when their 4-H Clubs were organized and their attendance at the officer and leader training school.

Club organized in November of 1974. There was a very significant difference in the two types of classroom situations in relation to the month in which the 4-H Clubs were organized. None (0 percent) of the 4-H Clubs in the open area classrooms were organized in November of 1974; however, 74 percent of the respondents in the self-contained classrooms were members of 4-H Clubs organized in October or November of 1974. Four-H Clubs were organized in the open area classrooms in

January of 1975 because these schools were contacted after the expansion of the Davidson County 4-H Program in November and December of 1974. At this time the urban 4-H program was initiated and there was a staff increase of six new 4-H workers. Data for this study were obtained in May and November of 1975.

Attended officer and leader training school. The 4-H members in the two types of classroom situations did not differ significantly, when tested by the Chi square test, as to their attendance at the county 4-H officer and leader training school. This may be explained by the fact that very few of the surveyed 4-H'ers attended this meeting. None (0 percent) of the 4-H'ers in the open area classrooms attended. This was explained by the fact that the training meeting was conducted in November of 1974 before the 4-H Clubs in those classrooms were organized; therefore, none of these 4-H'ers could have possibly attended. Only 8 percent of the 4-H'ers in the self-contained classrooms attended even though all of these clubs were organized, thus causing the differences in the percentages to be quite small. The 4-H members in the open area classroom 4-H Clubs were given their training during the club meetings when their clubs were organized in January.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to the Following Activities Which the 4-H'ers Planned to Enter: County 4-H Fair Exhibit, 4-H Livestock Shows, 4-H Horticulture Exhibits, 4-H Workshops, Other 4-H Activities, and Total Number of 4-H Activities Planned

The purpose of this subsection was to compare 4-H members in the open area with those in the self-contained classrooms as to the upcoming 4-H activities in which they plan to participate. These activities included the county 4-H fair exhibits, 4-H camp, 4-H livestock shows, 4-H horticulture exhibits, 4-H workshops, and other 4-H activities. The total number of activities in which 4-H'ers in each group planned to participate was also compared.

County 4-H fair exhibit, 4-H camp, 4-H livestock shows, 4-H horticulture exhibits, and 4-H workshops. The 4-H members in the two types of classroom situations did not differ significantly according to the Chi square test as to their planned participation at the county 4-H fair, 4-H camp, 4-H livestock shows, 4-H horticulture exhibits, or 4-H workshops as the following percentages for the open area versus the self-contained classrooms, respectively, show: 18 percent as compared to 15 percent, 24 percent as compared to 26 percent, 5 percent as compared to 8 percent, 9 percent as compared to 14 percent, and 14 percent as compared to 13 percent.

Other 4-H activities. According to the Chi square test, the 4-H'ers in the two types of classroom situations differed significantly as to their planned participation in other upcoming 4-H activities. Two

percent of the 4-H'ers in the open area classrooms planned to participate whereas 10 percent of the 4-H'ers in the self-contained classrooms planned to do so.

Total number of 4-H activities planned. The 4-H members in the open area and self-contained classrooms differed significantly according to the Chi square test as to the total number of 4-H activities in which they planned to enter. In the open area classrooms, 55 percent did not plan to participate in any 4-H activities; whereas, only 39 percent of the 4-H'ers in the self-contained classrooms did not plan to enter any 4-H activities. A higher percentage of the 4-H'ers in the self-contained classrooms (43 percent) than in the open area classrooms (24 percent) planned to enter at least one 4-H activity.

III. COMPARISON OF 4-H MEMBERS IN OPEN AREA WITH THOSE IN SELF-CONTAINED CLASSROOMS IN REGARD TO 4-H KNOWLEDGE

Table III compared 4-H members in open area with those in self-contained classrooms as to their knowledge of information covered in 4-H Club meetings during the year. The questions asked in the questionnaire were about general 4-H facts covered in 4-H meetings plus information presented in demonstrations on consumer education, bicycle safety, and money management given by the 4-H staff during 4-H meetings. There were also four questions concerning the actions taken by the 4-H'ers which indicated the knowledge they had gained in the 4-H Club meetings.

Table III

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to 4-H Knowledge

Knowledge Variables	Total No.	Total %	Open Area No.	Open Area %	Self-Contained No.	Self-Contained %
Type of 4-H Club Classroom Situation						
General 4-H Knowledge						
4-H Emblem			$x^2=3.48$, $p>.05$			
Correct	296	97	133	94	163	99
Incorrect	10	3	8	6	2	1
Total	306	100	141	46	165	54
4-H Colors			$x^2=0.00$, $p>.05$			
Correct	233	75	106	75	127	75
Incorrect	78	25	36	25	42	25
Total	311	100	142	46	169	54
4-H Motto			$x^2=0.00$, $p>.05$			
Correct	145	48	65	47	80	48
Incorrect	160	53	73	53	87	52
Total	305	100	138	45	167	55
4-H's			$x^2=1.88$, $p>.05$			
Zero	157	49	69	47	88	52
One	14	4	5	3	9	5
Two	13	4	7	5	6	4
Three	28	9	14	10	14	8
Four	107	34	53	36	54	32
Total	319	100	148	46	171	54
4-H Pledge			$x^2=20.59$, $p<.05$			
Correct	158	51	52	37	106	64
Incorrect	150	49	89	63	61	37
Total	308	100	141	46	167	54
Grades with 4-H			$x^2=3.95$, $p<.05$			
Correct	195	64	96	71	99	59
Incorrect	109	36	40	29	69	41
Total	304	100	136	45	168	55
4-H Officers			$x^2=3.83$, $p<.05$			
Correct	211	72	86	66	125	77
Incorrect	81	28	44	34	37	23
Total	292	100	130	45	162	56

Table III (continued)

Knowledge Variables	Type of 4-H Club Classroom Situation: Total No.	Total %	Open Area No.	Open Area %	Self-Contained No.	Self-Contained %
Consumer Education						
Importance of Reading the Labels			$x^2=2.42$, $p>.05$			
Correct	295	94	131	91	164	96
Incorrect	20	6	13	9	7	4
Total	316	100	144	46	171	54
New Symbol on Labels			$x^2=0.35$, $p>.05$			
Correct	259	83	122	85	137	82
Incorrect	53	17	22	15	31	19
Total	312	100	144	46	168	54
Meaning of Symbol			$x^2=5.76$, $p<.05$			
Correct	170	57	68	49	102	64
Incorrect	128	43	70	51	58	36
Total	298	100	138	46	160	54
Net Contents on Package			$x^2=0.01$, $p>.05$			
Correct	280	89	130	88	150	89
Incorrect	36	11	17	12	19	11
Total	316	100	147	47	169	54
Information Required on Label			$x^2=0.25$, $p>.05$			
Correct	200	64	95	66	105	62
Incorrect	114	36	50	35	64	38
Total	314	100	145	46	169	54
Bicycle Safety						
Driver's Signal for Turns			$x^2=1.14$, $p>.05$			
Correct	224	72	99	69	125	75
Incorrect	87	28	45	31	42	25
Total	311	100	144	46	167	54
Weaving Bicycle in Traffic			$x^2=0.099$, $p>.05$			
Correct	271	86	125	85	146	87
Incorrect	44	14	22	15	22	13
Total	315	100	147	47	168	53
Correct Side of Road for Bicycle Riding			$x^2=0.26$, $p>.05$			
Correct	261	84	123	85	138	83
Incorrect	50	16	21	15	29	17
Total	311	100	144	46	167	54

Table III (continued)

Knowledge Variables	Type of 4-H Club Classroom Situation: Total No.	Total %	Open Area No.	Open Area %	Self-Contained No.	Self-Contained %
Bicycle Safety (continued)						
Right of Way for Pedestrians			$x^2=0.20$, $p>.05$			
Correct	271	87	130	88	141	86
Incorrect	42	13	18	12	24	15
Total	313	100	148	47	165	53
Traffic Signs and Signals			$x^2=0.93$, $p>.05$			
Correct	285	91	130	88	155	92
Incorrect	30	10	17	12	13	8
Total	315	100	147	47	168	53
Money Management						
Spend, Share, or Save Money			$x^2=0.04$, $p>.05$			
Correct	253	81	118	81	135	80
Incorrect	61	19	27	19	34	20
Total	314	100	145	46	169	54
Assets			$x^2=0.26$, $p>.05$			
Correct	72	24	35	26	37	23
Incorrect	228	76	101	74	127	77
Total	300	100	136	45	164	55
Capital			$x^2=3.19$, $p>.05$			
Correct	171	59	84	65	87	54
Incorrect	119	41	45	35	74	46
Total	290	100	129	45	161	56
Checks			$x^2=0.30$, $p>.05$			
Correct	247	81	113	80	134	83
Incorrect	57	19	29	20	28	17
Total	304	100	142	47	162	53
Actions Indicating Knowledge Gained						
Read Project Book			$x^2=0.897$, $p>.05$			
Yes	131	42	64	45	67	39
No	180	58	77	55	103	61
Total	311	100	141	45	170	55
Made Items from Book			$x^2=6.82$, $p<.05$			
Yes	174	56	67	48	107	63
No	135	44	73	52	62	37
Total	309	100	140	45	169	55

Table III (continued)

Knowledge Variables	Type of 4-H Club Classroom Situation					
	Total		Open Area		Self-Contained	
	No.	%	No.	%	No.	%
Actions Indicating Knowledge Gained (continued)						
Completed Project Book			$x^2=2.795$, $p>.05$			
Yes	75	24	41	29	34	20
No	234	76	100	71	134	80
Total	309	100	141	46	168	54
Plan to Complete Project Book			$x^2=0.00$, $p>.05$			
Yes	223	75	103	76	120	75
No	73	25	33	24	40	25
Total	296	100	136	46	160	54

Comparisons were made in terms of numbers and percents; the Chi square (x^2) test was used to determine the significance of the difference found in the two types of classroom situations. Chi square values which achieved the .05 level were accepted as statistically significant.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to 4-H Knowledge Questions concerning the 4-H Emblem, 4-H Colors, 4-H Motto, the 4 H's, 4-H Pledge, Grades with 4-H Clubs, and 4-H Officers

The purpose of this subsection was to compare 4-H members in the open area with those in the self-contained classrooms as to their knowledge about the 4-H emblem, 4-H colors, 4-H motto, the 4 H's, 4-H pledge, grades in school which have 4-H Clubs, and 4-H officers.

4-H emblem, 4-H colors, 4-H motto, and 4 H's. The 4-H'ers in the two types of classroom situations did not differ significantly, according to the Chi square test, in the correctness of their answers to questions concerning the 4-H emblem, 4-H colors, 4-H motto, and the meaning of the 4 H's. On the question concerning the 4-H emblem, 94 percent of the open area classroom 4-H'ers answered it correctly as compared to 99 percent of the self-contained classroom 4-H'ers. On the question concerning the 4-H colors, 75 percent of both groups answered it correctly. On the question of the 4-H motto, 47 percent of the open area classroom 4-H'ers answered it correctly as compared to 48 percent of the self-contained classroom 4-H'ers. On the question concerning the meaning of the 4 H's, 36 percent of the open

area classroom 4-H'ers listed all four of the words which the H's stand for as compared to 32 percent of the self-contained classroom 4-H'ers. Thus a very high percentage of the 4-H'ers in both classroom situations (97 percent) knew the emblem of 4-H. The type of classroom situation was not related to 4-H'ers knowledge of the 4-H emblem, 4-H colors, 4-H motto, or their understanding of the 4 H's.

4-H pledge. The data indicated that 64 percent of the 4-H'ers in the self-contained classrooms knew all of the 4-H pledge as compared to 37 percent of the 4-H'ers in the open area classrooms. The type of classroom situation was significantly related to 4-H'ers knowledge of the 4-H pledge; significantly more of the 4-H members in the self-contained classrooms knew the 4-H pledge.

Grades with 4-H and 4-H officers. The 4-H'ers in the two types of classrooms differed significantly as to knowledge about the grades in school which have 4-H Clubs and knowledge about the 4-H officers. In the open area classrooms, 71 percent of the 4-H'ers answered the question on grades in school with 4-H Clubs correctly as compared to 59 percent of the self-contained classroom 4-H'ers. These differences were significant as tested by the Chi square test. Thus the type of classroom situation was significantly related to the 4-H'ers knowledge of school grades that have organized 4-H Clubs; members in the open area classrooms made higher scores on this question. Regarding knowledge of 4-H Club officers, 66 percent of the 4-H'ers in the open area classrooms, compared to 77 percent of those in the self-contained

classrooms, answered the question correctly. The type of classroom situation, thus, was significantly related to the 4-H'ers knowledge of 4-H Club officers. Those in the self-contained classrooms made the highest scores.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to 4-H Knowledge Questions concerning the Importance of Reading the Labels, New Symbol on Labels, Meaning of Symbol, Net Contents on Package, and Information Required on Label

The purpose of this subsection was to compare 4-H members in the open area with those in the self-contained classrooms as to their knowledge about the importance of reading labels, new symbol on labels, meaning of the new symbol, net contents required on packages, and information required on package labels.

Importance of reading the labels. The 4-H'ers in the two types of classroom situations did not differ significantly, according to the Chi square test, in the correctness of their answers to the consumer education question concerning the importance of reading labels on packages; 91 percent of the open area classroom 4-H'ers answered it correctly as compared to 96 percent of the self-contained classroom 4-H'ers. Thus a very high percentage of the 4-H'ers in both classrooms (94 percent) knew that reading package labels was important. The type of classroom situation was not related to the 4-H'ers knowledge concerning the importance of reading labels on consumer packages.

New symbol on labels. When tested by the Chi square test, the 4-H'ers in the two types of classroom situations did not differ significantly in the correctness of their answers to the question concerning the identification of the new symbol on package labels. In the open area classrooms 49 percent of the 4-H'ers answered it correctly as compared to 64 percent of the 4-H'ers in the self-contained classrooms. Thus the type of classroom situation was not related to the 4-H'ers knowledge of the new package labels.

Meaning of symbol. The data indicated that 49 percent of the 4-H'ers in the open area classrooms knew the meaning of the new labeling symbol as compared to 64 percent of the 4-H'ers in the self-contained classrooms. The type of classroom situation was significantly related to the 4-H'ers knowledge concerning the meaning of the new labeling symbol; significantly more of the 4-H'ers in the self-contained classrooms knew the meaning of the symbol.

Net contents on package. The 4-H'ers in the two types of classroom situations did not differ significantly, according to the Chi square test, in the correctness of their answers to the question concerning the requirement of the net contents on package labels; 88 percent of the open area classroom 4-H'ers answered it correctly as compared to 89 percent of the self-contained classroom 4-H'ers. Thus the type of classroom situation was not related to the 4-H'ers knowledge concerning the requirement of the net contents on package labels.

Information required on labels. When tested by Chi square, the 4-H'ers in the two types of classroom situations did not differ significantly in their knowledge of the required information concerning the manufacturer, distributor, or packer on package labels. In the open area classrooms 66 percent of the 4-H'ers answered this question correctly as compared to 62 percent of the 4-H'ers in the self-contained classrooms. The type of classroom situation was not related to the 4-H'ers knowledge of the information required on package labels.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to 4-H Knowledge Questions concerning the Correct Driver's Signal for Turns, Weaving in and out of Traffic, Correct Side of Road for Bicycle Riding, Right of Way for Pedestrians, and Traffic Signs and Signals

The purpose of this subsection was to compare 4-H members in the open area classrooms with those in the self-contained classrooms as to their knowledge of the correct driver's signal for turns, weaving in and out of traffic, correct side of the road for bicycle riding, right of way for pedestrians, and traffic signs and signals.

Driver's signal for turns. The 4-H members in the two types of classroom situations did not differ significantly, according to the Chi square test, in the correctness of their answers to the bicycle safety question concerning the hand signal a bicycle rider would use when making a right turn. In the open area classrooms 69 percent of the 4-H'ers answered it correctly as compared to 75 percent of the 4-H'ers in the self-contained classrooms. Thus the type of classroom

situation was not related to the 4-H'ers knowledge of hand turn signals.

Weaving bicycle in traffic. The 4-H members in the two types of classroom situations did not differ significantly, according to the Chi square test, in their knowledge concerning the appropriateness of weaving their bicycles in and out of traffic; 85 percent of the open area classroom 4-H'ers as compared to 87 percent of the self-contained classroom 4-H'ers answered the question correctly. The type of classroom situation thus was not related to the 4-H'ers knowledge concerning this aspect of safe bicycle riding.

Correct side of road for bicycle riding. When tested by Chi square, the 4-H'ers in the two types of classroom situations did not differ significantly as to their knowledge of the correct side of the road on which to ride their bicycles. In the open area classrooms 85 percent of the 4-H'ers answered this question correctly as compared to 83 percent of the self-contained classroom 4-H'ers. Thus the type of classroom situation was not related to the 4-H'ers knowledge of the correct side of the road on which to ride their bicycles.

Right of way for pedestrians. The 4-H'ers in the two types of classroom situations did not differ significantly, according to the Chi square test, in the correctness of their answers to the question concerning the right of way for pedestrians; 88 percent of the open area classroom 4-H'ers as compared to 86 percent of the self-contained

classroom 4-H'ers answered it correctly. Thus the type of classroom situation was not related to the 4-H'ers knowledge of the right of way for pedestrians.

Traffic signs and signals. The 4-H members in the two types of classroom situations did not differ significantly, according to the Chi square test, as to their knowledge of traffic signs and signals. In the open area classrooms 88 percent of the 4-H'ers answered this question correctly as compared to 92 percent of the self-contained classroom 4-H'ers. Thus a high percentage of the 4-H'ers in both classroom situations (91 percent) knew the traffic signs and signals. The type of classroom situation was not related to the 4-H'ers knowledge of traffic signs and signals.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to 4-H Knowledge Questions concerning Spend, Share, or Save Money; Assets; Capital; and Checks

The purpose of this subsection was to compare 4-H members in the open area classrooms with those in the self-contained classrooms as to their knowledge about whether to spend, share, or save their money; and the definitions of assets, capital, and checks.

Spend, share, or save money. The 4-H'ers in the two types of classroom situations did not differ significantly, according to the Chi square test, in the correctness of their answers to the money management question concerning whether one should spend, share, or save his money; 81 percent of the 4-H'ers in the open area classrooms

answered it correctly as compared to 80 percent of the 4-H'ers in the self-contained classrooms. Thus the type of classroom situation was not related to the 4-H'ers knowledge of the recommended methods of handling money.

Assets. When tested by Chi square, the 4-H'ers in the two types of classroom situations did not differ significantly in their knowledge of the meaning of the term assets. In the open area classrooms 26 percent of the 4-H'ers answered the question correctly as compared to 23 percent of the 4-H'ers in the self-contained classrooms. Thus the type of classroom situation was not related to the 4-H'ers knowledge of the meaning of the term assets.

Capital. The 4-H'ers in the two types of classroom situations did not differ significantly, according to the Chi square test, as to their knowledge of the meaning of the term capital; 65 percent of the open area classroom 4-H'ers as compared to 54 percent of the self-contained classroom 4-H'ers answered this question correctly. The type of classroom situation was not related to the 4-H'ers knowledge of the meaning of the term capital.

Check. When tested by Chi square, the 4-H'ers in the two types of classroom situations did not differ significantly as to their knowledge of the definition of the term check. In the open area classrooms 80 percent of the 4-H'ers answered this question correctly as compared to 83 percent of the self-contained classroom 4-H'ers. Thus the type of

classroom situation was not related to the 4-H'ers knowledge of the definition of the term check.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to the Following Activities Which Are Based on 4-H Knowledge Gained: Read 4-H Project Book, Made Items from 4-H Project Book, Completed 4-H Project Book, and Plan to Complete 4-H Project Book

The purpose of this subsection was to compare 4-H members in the open area with those in the self-contained classrooms as to their participation in the following activities which were based on the 4-H knowledge gained during the year: read 4-H project book, made items from 4-H project book, completed 4-H project book, and plan to complete 4-H project book.

Read 4-H project book. The 4-H members in the two types of classroom situations did not differ significantly, according to the Chi square test, as to whether or not they had read their 4-H project book. In the open area classrooms 45 percent of the 4-H'ers reported that they had read their 4-H project books as compared to 39 percent of the 4-H'ers in the self-contained classrooms. Thus the type of classroom situation was not related to whether or not the 4-H'ers read their 4-H project books.

Made items from book. The 4-H members in the two types of classroom situations did differ significantly, according to the Chi square test, as to whether or not they had made any items from their 4-H project books; 48 percent of the 4-H'ers in the open area classrooms as

compared to 63 percent of the 4-H'ers in the self-contained classrooms had made items from their 4-H project book. Thus the type of classroom situation was significantly related to whether or not the 4-H'ers made items from their book; significantly more of the 4-H'ers in the self-contained classrooms reported that they had made items from their 4-H project books.

Completed 4-H project book. The 4-H'ers in the two types of classroom situations did not differ significantly, according to the Chi square test, as to whether or not they had completed their 4-H project books; 29 percent of the open area classroom 4-H'ers as compared to 20 percent of the self-contained classroom 4-H'ers reported that they had completed their books. Thus a low percentage of the 4-H'ers in both classroom situations (24 percent) reported that they had completed their 4-H project book. The type of classroom situation thus was not related to whether or not the 4-H'ers completed their books.

Plan to complete 4-H project book. The members in the two types of classroom situations did not differ significantly, according to the Chi square test, as to whether or not they planned to complete their 4-H project books. In the open area classrooms 76 percent of the 4-H'ers reported that they planned to complete their books as compared to 75 percent of the 4-H'ers in the self-contained classrooms. Thus the type of classroom situation was not related to whether or not the 4-H'ers planned to complete their 4-H project books. A greater percentage of 4-H'ers in both classroom situations planned to complete

their 4-H project books (75 percent) than had actually completed them (24 percent).

CHAPTER IV

SUMMARY OF MAJOR FINDINGS, IMPLICATIONS, AND RECOMMENDATIONS

I. PURPOSE AND SPECIFIC OBJECTIVES

Purpose

This study compared 4-H members who attended 4-H Club meetings in the open area classrooms with those who met in the self-contained classrooms. The purpose was to determine if the Extension teaching methods presently being used were equally effective in the two types of classroom situations. It was felt that this information would enable Extension workers to more objectively evaluate their present 4-H program and to plan more effectively programs for both types of classroom situations.

Specific Objectives

The specific objectives of the study were to compare the 4-H members meeting in open area classrooms with those meeting in the self-contained classrooms as to their:

1. background information
2. participation in 4-H activities and contests
3. knowledge of 4-H facts and 4-H project information

II. METHOD OF INVESTIGATION

The Population and Sample

The population of the study consisted of all boys and girls in the fourth, fifth, and sixth grades in the Metropolitan Nashville-Davidson County, Tennessee School System which had an organized 4-H Club Program. The sample included 993 students from seven of these schools. Subsamples randomly drawn for this study included 10 from each of the 32 classrooms (150 4-H'ers from 15 open area classrooms and 170 4-H'ers from 17 self-contained classrooms).

Collection of Data

Data were secured by means of a questionnaire which was completed in a group situation by 993 students in the seven aforementioned schools. This instrument was developed by the author with the guidance of an Extension 4-H Specialist and the Extension Education Department at the University of Tennessee.

Analysis of Data

Analyses were conducted in terms of numbers and percents; the Chi square (x^2) test was used to determine the significance of the differences found in the 4-H members in the two types of classroom situations. The observed differences which achieved the .05 level were accepted as being statistically significant.

III. SUMMARY OF MAJOR FINDINGS

Data relative to the comparison of 4-H members whose 4-H Club meetings were conducted in open area classrooms with those conducted in the self-contained classrooms were tabled and organized into three major headings related to the objectives of the study: background information, participation in 4-H activities and contests, and knowledge of 4-H facts and 4-H project information. Results of the major findings are presented below.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Background Information

There was a significant difference in the grades in school in which the 4-H'ers in the two groups were enrolled in; the open area classroom clubs were made up of approximately one-fifth third grade members, whereas the self-contained classrooms had no third graders. This was caused by the policy of one school with open area classrooms; they combined third and fourth graders in classrooms and would not separate them for 4-H meetings. More 4-H members in the self-contained classrooms than in the open area classrooms lived in rural areas. Differences in scholastic grades received in school were attributed to the type of grading system used in the different schools and not to the letter grade received; the majority of 4-H'ers in the open area classrooms did not receive letter grades whereas all 4-H'ers in the self-contained classrooms received letter grades.

Four-H members in the self-contained classrooms, on the average, had been in 4-H for more years than 4-H'ers in the open area classrooms. A larger percentage of 4-H'ers in the self-contained classrooms reported that both of their parents had been in 4-H. The 4-H'ers differed as to what they liked most about 4-H; the number one reason given by the open area classroom 4-H'ers was that they liked 4-H meetings being conducted during school hours so they missed class, while the number one reason given by the self-contained classrooms 4-H'ers was that they had fun in 4-H. Fun in 4-H was the second choice of the 4-H'ers in the open area classrooms. Approximately one-fifth of both groups felt that 4-H was an opportunity to learn about animals, plants, foods, and other projects. A higher percentage of the self-contained classroom 4-H'ers stated that they planned to join 4-H the next year if it met during school hours. The self-contained classrooms had a higher percentage of 4-H'ers than the others who indicated that they would tell their friends to join 4-H. A higher percentage of 4-H'ers in the self-contained classrooms planned to remain in 4-H for the maximum number (9) of years possible.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to Participation in 4-H Activities and Contests

1. The 4-H'ers in the self-contained classrooms attended more 4-H meetings than did those in the open area classrooms.

2. A larger percentage of 4-H'ers in self-contained classrooms participated in the local public speaking contest.

3. Significantly more 4-H'ers in the self-contained classrooms participated in the first local demonstration contest.

4. A significantly higher percentage of 4-H'ers in the self-contained classrooms participated in the art poster contest.

5. Significantly more 4-H'ers in the open area classrooms participated in the dairy poster contest.

6. A higher percentage of the respondents in the self-contained classrooms were members of 4-H Clubs organized in October or November of 1974; none of the respondents in the open area classrooms were members of 4-H Clubs organized in October or November of 1974. All of these clubs were organized in January of 1975 after the initiation of the urban 4-H program and the addition of six new 4-H workers.

7. Significantly more of the self-contained classroom 4-H'ers planned to participate in other upcoming 4-H activities.

8. A higher percentage of the 4-H'ers in the self-contained classrooms planned to enter at least one upcoming 4-H activity.

There was not a significant relationship between the classroom situation and whether or not the 4-H'ers had been an officer of their 4-H Club. The percentages of the 4-H members in both types of classroom situations who participated in the county public speaking contest did not differ significantly when compared. The 4-H'ers in the two types of classroom situations did not differ significantly as to their participation in the second local demonstration contest, the first county demonstration contest, or the second county demonstration contest. There was not a significant difference in the participation

of the 4-H'ers in the two types of classroom situations in either the county breadbaking contest or the county bicycle rodeo. The 4-H members in the two types of classroom situations did not differ significantly as to the total number of activities in which they participated during the year. They also did not differ significantly as to their attendance at the county 4-H officer and leader training school.

The 4-H members in the two types of classroom situations did not differ significantly as to their planned participation at the county 4-H fair, 4-H camp, 4-H livestock shows, 4-H horticulture exhibits, or 4-H workshops.

Comparison of 4-H Members in Open Area with Those in Self-Contained Classrooms in regard to 4-H Knowledge

1. Significantly more of the 4-H members in the self-contained classrooms knew the 4-H pledge.

2. Significantly more of the 4-H members in the open area classrooms knew the grades in school which had organized 4-H Clubs.

3. Significantly more of the 4-H members in the self-contained classrooms knew which officers the Davidson County 4-H Clubs had.

4. Significantly more of the 4-H members in the self-contained classrooms knew the meaning of the new labeling symbol found on consumer packages.

5. Significantly more of the 4-H members in the self-contained classrooms reported that they had made items from their 4-H project book.

The 4-H members in the two types of classroom situations did not differ significantly in the knowledge of the 4-H emblem, 4-H colors, 4-H motto, or meaning of the 4 H's.

In the area of consumer education, the 4-H members in the two types of classroom situations did not differ significantly in their knowledge of the importance of reading package labels; the identification of the new symbol on package labels; the requirement of net contents on package labels; and the information concerning the manufacturer, distributor, or packer required on package labels.

There was no significant difference in the correctness of answers given to the bicycle safety questions concerning the correct driver's signal for a right turn, the appropriateness of weaving a bicycle in and out of traffic, the correct side of the road on which to ride a bicycle, the right of way for pedestrians, and the traffic signs and signals.

The 4-H members in the two types of classroom situations did not differ significantly as to their knowledge of the following money management areas: whether to spend, share, or save their money; definition of assets; definition of capital; and definition of checks.

No significant difference was found when the 4-H'ers in the two types of classroom situations were compared as to whether or not they had read their 4-H project book, whether or not they had completed their 4-H project book, and whether or not they planned to complete their 4-H project book.

IV. IMPLICATIONS AND RECOMMENDATIONS

Based on the findings of this study, the examination of related literature, and the experience the author had in working in the situation, the following implications and recommendations are made:

1. Findings of the study showed that the 4-H members in the two types of classroom situations differed significantly in their response to only five of the 25 4-H knowledge questions and subsequently did not differ on 20 of the 25 4-H knowledge questions. This would indicate that the overall 4-H program and teaching methods being used are relatively equal in effectiveness in the two types of classroom situations; therefore, it is recommended that the 4-H Club meetings be conducted in the same manner in both types of classroom situations—the open area classrooms and the self-contained classrooms.

2. Findings of the study showed that significantly more of the 4-H members in the self-contained classrooms knew the 4-H pledge. This would indicate that more time was spent stressing the importance of learning the 4-H pledge and in teaching the 4-H pledge to the students in the self-contained classrooms by the Extension staff and/or the self-contained classroom teacher and/or that these 4-H'ers were more interested and eager to learn the 4-H pledge. It is recommended that the Extension staff make a greater effort to both gain the attention and interest of the open area classroom 4-H'ers and to teach them the 4-H pledge. The Extension staff should also make a greater effort to instill in the open area classroom teachers a desire to be more involved in their classrooms' 4-H Club and to assist the 4-H'ers more.

3. Significantly more of the 4-H members in the self-contained classrooms knew the grades in school which had organized 4-H Clubs. This would indicate that more time was spent explaining the 4-H Club Program to the 4-H'ers in the self-contained classrooms and/or that they were more interested and attentive. It is recommended that all Extension staff make the explanation of the total 4-H program detailed enough and interesting enough so that all 4-H'ers will understand and remember it.

4. Significantly more of the 4-H members in the self-contained classrooms knew which officers their 4-H Clubs had. This would indicate that self-contained classroom 4-H'ers may have taken being a 4-H officer more seriously and seen it as being more important as an opportunity to perform before the class. Characteristically, they are not as free to move about the classroom and to talk with their classmates as are the open area classroom 4-H'ers. It is recommended that the Extension staff members work harder with the open area classroom 4-H'ers to stress the value and importance of being a 4-H Club officer.

5. Significantly more of the self-contained classroom 4-H members knew the meaning of the new labeling symbol found on consumer packages. Since this was the most difficult consumer education question which was asked and since the same program with the same visuals was presented to all 4-H Clubs in both types of classroom situations, it would indicate that the 4-H'ers in the open area classrooms were not quite as attentive to this program. It is recommended that the Extension staff members

make all of their programs as interesting as possible to keep everyone's attention and that they more carefully explain the most difficult parts of the programs to everyone.

6. Significantly more of the 4-H members in the self-contained classrooms reported that they had made items from their 4-H project books. This would indicate that the 4-H'ers in the self-contained classrooms were more highly motivated. This could come from the fact that self-contained classroom teachers were usually more involved in 4-H and provided more encouragement to their students to make items suggested in their 4-H project books, and/or that self-contained classroom 4-H'ers did not has much freedom to make as many things in class as did open area classroom 4-H'ers; therefore, it may have seemed more exciting to them to have ideas of things to make and encouragement to make them. It is recommended that Extension staff members spend more time encouraging the open area classroom 4-H'ers to use their 4-H project books and that they encourage the teachers to promote 4-H and the use of the 4-H project books more.

7. The study indicated that the students in the open area classrooms had more freedom and a greater choice of classroom activities in which to participate than did the students in the self-contained classrooms; therefore, the 4-H program had much more to compete with in the former situation to gain the 4-H'ers attention and hold their interest. In many cases the open area classroom 4-H'ers were free to move about the room during the 4-H Club meetings; they could make the choice themselves as to whether they would participate in the 4-H

Club meetings or not. This would indicate that the 4-H Staff must work very hard in such classrooms to make the 4-H Club meetings interesting and appealing so that all students will participate fully in the meetings. It is recommended that the 4-H Staff be enthusiastic, have a good rapport with the 4-H'ers and be well prepared for the meetings. It also is highly recommended that the 4-H Staff present programs which offer and encourage 4-H'ers involvement, such as puzzles, games, role playing, etc., which gain the 4-H'ers active participation in a fun-type activity and thereby gain his interest. At the same time, these activities should be educational in nature and contribute to the overall educational goal of the meetings. The 4-H'ers can acquire much knowledge while playing a game and not realize that they are learning.

8. Findings of the study showed that more self-contained classroom 4-H'ers than open area classroom 4-H'ers would join a 4-H Club the next year if it met during school hours, would tell their friends to join 4-H next year, and planned to remain in 4-H for nine years. This would indicate that 4-H is a special activity to self-contained classroom 4-H'ers which is a break from the regular structured school day; whereas, it is not as special to the open area classroom 4-H'ers because they are involved in some type of activity all day. It is again recommended that the 4-H Staff work hard to make their 4-H Club meetings interesting and special to all 4-H'ers, especially the open area classroom 4-H'ers. The 4-H Staff must use techniques to make the meetings different and unique from the classroom

activities in the open area classrooms in order to appeal fully to these 4-H'ers.

9. The study showed that the support and involvement of the classroom teachers is important and that the open area classroom teachers tended to be less involved in 4-H than the self-contained classroom teachers. This may have been due to the fact that the 4-H program had been in the schools with the self-contained classrooms longer than in the schools with the open area classrooms. Thus, the self-contained classroom teachers and principals tended to be more familiar with the program and its potential influence upon the 4-H'ers. This would indicate that the Davidson County 4-H Staff may still have work to do explaining the entire 4-H Club program, goals, and accomplishments to the open area classroom teachers and their principals. They must be completely familiar with the advantages of a strong 4-H program before they may be expected to wholeheartedly support one. It is recommended that the 4-H Staff undertake a well-planned public relations and educational program with the teachers and principals of the open area classroom schools.

10. The study showed that the open area classroom 4-H'ers were much freer to move about than the self-contained classroom 4-H'ers and that the open area classroom situation was more casual than the self-contained classroom situation. The 4-H Staff cannot change the policy of the school or the mood of the class each month for the one hour they are in the open area classrooms conducting the 4-H Club meetings; therefore, it is recommended that the 4-H Staff fully

understand the policy of these classrooms, accept this policy, and strive to fit into it. Thus, the 4-H Staff must be flexible enough to change their ideas and alter their programs to meet the policies of each school and the needs of each classroom. The 4-H Staff is presently preparing programs which can be altered slightly to fit the needs of the four different age groups and the varying length of time allotted for 4-H Club meetings in various schools. Making additional efforts to be even more flexible and to alter their approaches and attitudes to fit the varying classroom situations may be desirable. Basically, the children involved are very much alike and if the 4-H Staff can relate to them as individuals and as groups, whatever the situation, they should be able to offer them the optimum benefits of 4-H Clubs wherever they go.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Adkins, Peggy M. "The Development and Testing of a Basic 4-H Experimental Learning Center Unit for Present and Prospective Tennessee 4-H Agents." Master's thesis, The University of Tennessee, Knoxville, 1974.

2. Aglesworth, Phillip F. "Serving with the Heart." National 4-H Club News, (October, 1960), 21.

3. Armstrong, David G. "Open Space vs. Self-Contained." Educational Leadership - Journal of the Association for Supervision and Curriculum Development, XXXII:4 (January, 1975), 291-5.

4. "Back to Basics in the Schoolhouse." The Reader's Digest, CVI (February, 1975), 149-52.

5. Baskin, Samuel. Higher Education: Some Newer Developments. New York: McGraw-Hill Book Company, 1965.

6. Brown, Emory J., and Patrick G. Boyle. 4-H in Urban Areas. Washington: National 4-H Foundation, 1964.

7. Carson, R. B., and others. "Supervision and Evaluation of Instructional Activities in Open Area, Quasi-Open Area, and Traditional Schools." Journal of Education, CLVI:4 (November, 1974), 18-27.

8. Carter, G. L., Jr., and Robert C. Clark. Selected Reading and References in 4-H Club Work. Madison: National Agricultural Extension Center for Advanced Study, 1961.

9. Coletta, Anthony J. "Personality Characteristics Held by Open and Traditional Teachers." The Journal of Educational Research, LXVIII:7 (March, 1975), 250-2.

10. Cooke, Geoffrey. "Problems of Teacher - Student Organization in Classrooms." Studies of Open Education No. 8. Aurora (Ontario): York County Board of Education, April, 1973.

11. Coombs, Phillip H., and others. New Paths to Learning. Edited by Barbara Baird Israel. Prepared for UNICEF by International Council for Educational Development, 1973.

12. Crout, George. Lucky Cloverleaf of the 4-H. Minneapolis: T. S. Denison & Company, Inc., 1971.

13. Crowl, Thomas K. "Examination and Evaluation of the Conceptual Basis for the Open Classroom." Education, XCVI:1 (Fall, 1975), 54-6.

14. "Curiosity and Creativity among Pupils in Open Plan and Architecturally Conventional Schools - A Progress Report." Studies of Open Education No. 7. Aurora (Ontario): York County Board of Education, March, 1973.

15. Engel, Brenda S. Arranging the Informal Classroom. Newton: Educational Development Center, Inc., 1973.

16. Good, Carter V. Dictionary of Education. New York and London: McGraw-Hill Book Company, Inc., 1945.

17. Gump, Paul V. "Operating Environments in Schools of Open and Traditional Design." School Review, XXCII:4 (August, 1974), 575-93.

18. Harris, Seymour E., and others. Challenge and Change in American Education. Berkeley: McCutchan Publishing Corporation, 1965.

19. Highet, Gilbert. The Art of Teaching. New York: Alfred A. Knopf, 1954.

20. Hinshaw, Kenneth. 4-H. New York: Orange Judd Publishing Company, Inc., 1935.

21. Horowitz, Peter, and David Otto. "The Teaching Effectiveness of an Alternative Teaching Facility." Bethesda, Md.: ERIC Document Reproduction Says Service, ED 083 242, 1973.

22. Kelsy, Lincoln David, and Cannon Chiles Hearne. Cooperative Extension Work. Ithaca: Comstock Publishing Associates, 1963.

23. Klasek, Charles B. Instructional Media in the Modern School. Lincoln: Professional Educators Publications, Inc., 1972.

24. Linden, Christie, Jr. "Open Space Schools and How to Use Them." Paper presented at National Association of Secondary School Principals Annual Convention, Las Vegas, February, 1975.

25. Linder, Ronald, and David Purdom. "Four Dimensions of Openness in Classroom Activities." The Elementary School Journal, LXXVI:3 (December, 1975), 147-50.

26. Marshall, Kim. Opening Your Class with Learning Stations. Palo Alto: Education Today Company, Inc., 1975.

27. Martin, T. T. The 4-H Club Leaders Handbook. New York: Harper & Brothers, 1956.

28. Maunder, Addison H. Agricultural Extension. Rome: Food and Agriculture Organization of the United Nations, 1972.

29. Mursell, James L. Successful Teaching. New York: McGraw-Hill Book Company, Inc., 1954.

30. Nichols, Joe F. "Influence of Selected Factors on Level of 4-H Participation by Seventh, Eighth and Ninth Grade Boys and Girls in Bledsoe County, Tennessee." Master's thesis, The University of Tennessee, Knoxville, 1973.

31. Norris, Donald R. "The Shape of Schools to Come." Parent's Magazine. L (January, 1975), 40-1, 173.

32. Ramsey, Craig T., and Vera Piper. "Creativity in Open and Traditional Classrooms." Child Development, XLV:2 (June, 1974), 557-60.

33. Reck, Franklin M. The 4-H Story. Ames: The Iowa College Press, 1951.

34. Sanders, H. C. The Cooperative Extension Service. Englewood Cliffs: Prentice-Hall, Inc., 1966.

35. Seif, Elliott. Success with Open Education. Belmont: Fearon Publishers, Inc., 1975.

36. Smith, Vernon H. Alternative Schools: The Development of Options in Public Education. Lincoln: Professional Educators Publications, Inc., 1974.

37. Stewart, Guy H. A Touch of Charisma - A History of the 4-H Club Program in West Virginia. Morgan Town, W. Va. [n.p.], 1969.

38. "Survey of Junior High Youth Activities." The University of Tennessee, 1971. (Mimeographed).

39. "Survey of Youth Activities." The University of Tennessee, 1970. (Mimeographed).

40. Tyler, Ralph. The Educational Potentials of 4-H. Washington: Federal Extension Service, 1960.

41. Wadleigh, Clarence B. The New Hampshire 4-H Story. South Lancaster: The College Press, 1969.

42. Williams, Donald B. Agricultural Extension. London and New York: Cambridge University Press, 1968.

43. Willman, H. A. A 4-H Handbook and Lesson Guide. Ithaca: Comstock Publishing Associates, 1963.

APPENDIX

THE UNIVERSITY OF TENNESSEE
AGRICULTURAL EXTENSION SERVICE
IN COOPERATION WITH LOCAL SCHOOL SYSTEMS

SURVEY OF EXPLORER AND JUNIOR 4-H'ERS

How do you like 4-H? Please take a few minutes to answer the questions below about 4-H. This will help us to plan 4-H work. Do not sign your name.

1. Name of 4-H Club _____

2. Circle your grade in school 3 4 5 6

3. Name of School _____ 4. Sex: _____Boy _____Girl

5. Circle the number of years you have been in 4-H (count this year)
   1 2 3

6. List the number of your family members who were in 4-H one year or more:
   _____Brothers _____Sisters _____Parents

7. Check where you live:
   _____Town or city
   _____Thickly settled area, but not in a town
   _____Country, but not on a farm
   _____Farm

8. On your report card, do you get mostly
   _____A's _____B's _____C's
   _____D's _____F's _____Other (Example: Satisfactory, Pass, etc.)

9. If you belong to any other club(s) which meet during school, please list them: _____
   _____

10. If you belong to any club(s) which meet outside school, please list them: _____
    _____

11. If you belong to more than one club, which is your favorite one?
    _____

12. Why? _____
    _____

13. Will you join 4-H next year if there is a club in your school which meets during school hours?
_____Yes _____No

14. Will you join 4-H next year if the only club at your school meets after school hours and you have to stay an hour after school one day a month for the meetings?
_____Yes _____No

15. Will you join 4-H next year if there is not a club at your school at all and you must go to meetings elsewhere at night?
_____Yes _____No

16. Are you glad you joined 4-H this year?
_____Yes _____No

17. What do you like most about 4-H? (Check one.)
_____It's fun.
_____It's an opportunity to be an officer and learn what leaders do.
_____It meets during school hours so I miss class.
_____It's a chance to learn about animals, plants, food, art and crafts, etc.
_____It's a chance to give speeches and demonstrations.
_____It's a chance to enter contests.
_____It's a chance to be with friends.
_____Other (please explain) _____

18. Will you tell your friends to join 4-H next year?
_____Yes _____No

19. How many years do you plan to remain in 4-H?
_____years

20. What was the attitude of your mother or guardian when you joined 4-H? (Check one.)
_____She was very happy.
_____She was uninterested (neither happy nor unhappy).
_____She was unhappy.

21. What was the attitude of your father or guardian when you joined 4-H? (Check one.)
_____He was very happy.
_____He was uninterested (neither happy nor unhappy).
_____He was unhappy.

22. How many meetings of your own local 4-H Club have you attended this year? (Circle one.)
1 2 3 4 5 6 7

23. Please check the things you have done as a 4-H member. (You may check more than one.)

_____ Served as an officer of my own local 4-H Club.
_____ Gave a speech at my own local 4-H Club meeting.
_____ Gave a speech at the county contest in February.
_____ Gave a demonstration at my 4-H Club's February meeting.
_____ Gave a demonstration at my 4-H Club's April meeting.
_____ Gave a demonstration at the county contest in March.
_____ Gave a demonstration at the county contest in April.
_____ Entered a 4-H art poster in the county contest in February.
_____ Entered a dairy poster in the county contest in April.
_____ Entered bread in the county breadbaking contest in April.
_____ Entered the bicycle rodeo.
_____ Other (please explain) _____

24. Was your 4-H Club organized by November, 1974?

_____ Yes _____ No

If yes, did you go to the officers' training school?

_____ Yes _____ No

25. Please check the things you plan to do this spring and summer in 4-H. (You may check more than one.)

_____ Exhibit articles made this year in 4-H in the county 4-H fair.
_____ Attend 4-H Camp.
_____ Exhibit dairy cattle, beef cattle, horses, lambs, swine or poultry at shows and exhibits.
_____ Exhibit vegetables raised this summer in 4-H in the 4-H Horticulural Exhibit.
_____ Attend summer 4-H project sessions and workshops.
_____ Other (please explain) _____

26. What is the emblem of the 4-H Club? (Check one.)

_____ 4 pointed star
__X__ 4 leaf clover

27. What are the 4-H colors? (Check one.)

_____ Red, white and blue
_____ Orange and white
__X__ Green and white
_____ Green and yellow

28. What is the 4-H motto? (Check one.)

_____ "I pledge my Head to clearer thinking."
__X__ "To make the best better."
_____ "Do a good deed everyday."

29. What do the 4 H's stand for?

Head _____ Hands _____
Heart _____ Health _____

30. Do you know all of the 4-H Pledge?
X Yes _____No

31. Students can be in the 4-H Club in which grades? (Check one.)
X Grades 4 through 12
_____Grades 4 through 9
_____Grades 4 through 6

32. The officers of Davidson County 4-H Clubs are as follows: (Check one.)
_____President, vice-president, secretary, treasurer, and two song leaders
X President, girl vice-president, boy vice-president, secretary, and two song leaders
_____President, girl vice-president, boy vice-president and two song leaders

33. Is reading the label when buying food important?
X Yes _____No

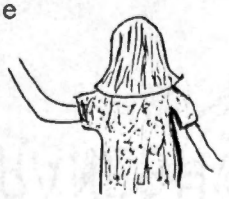
34. A symbol similar to this one, 

, is found on new labels.
X True _____False

35. The above symbol means: (Check one.)
_____Nutritional content of the food
X Universal product code
_____Ingredients code

36. The net contents in a package must be shown on the label.
X True _____False

37. The name, address, and zip code of the manufacturer, packer, or distributor are required on a package label.
X True _____False

38. This driver's signal, , means the driver will make a right turn.
X True
_____False

39. Weaving in and out of traffic while riding a bicycle is alright.
_____True X False

40. When riding a bicycle, one should keep to the right side of the road.
X True _____False

41. Bicycle riders should give pedestrians the right of way.
X True _____False

42. Bicyclists must obey traffic signals and roadsigns the same as motorists.
X True _____False

43. People should do three things with their money: spend some, share some, and save some.
X True _____False

44. All the money and property a person own is: (Check one.)
X Assets
_____Balance
_____Account

45. Capital is the accumulated wealth one has that is often invested in business.
X True _____False

46. A check is a written order directing a bank or banker to pay money as instructed.
X True _____False

47. Have you read your entire Exploring 4-H Book or your 4-H project book(s)?
_____Yes _____No

48. Have you made at least one item from your 4-H book(s)?
_____Yes _____No

49. Have you finished your 4-H book(s)?
_____Yes _____No

50. Are you going to finish your 4-H book(s) if you have not already?
_____Yes _____No

This completes the survey form. Thank you for your help.

VITA

Shirley Fay Miller was born in Murfreesboro, Tennessee, on June 1, 1947, to Redmon H. and Odie Miller. She has one younger sister, Peggy.

Shirley attended elementary and high schools in Rutherford County where she graduated from Murfreesboro Central High School in 1965. She was active in the Rutherford County 4-H Club Program for eight years as a 4-H member and served as a 4-H leader during her first two years of college at Middle Tennessee State University in Murfreesboro, Tennessee. She graduated from the University of Tennessee, Knoxville, with a degree in Home Economics Education in June of 1969.

Shirley was employed as an Assistant Extension Agent in Davidson County, Tennessee, in August of 1969. She is presently still employed in Davidson County and working in the 4-H Club Program. She is active in the following professional organizations: Secretary-Treasurer of the Tennessee Association of Extension Home Economists, National Association of Extension Home Economists, Tennessee Association of Extension 4-H Workers, National Association of Extension 4-H Workers, Tennessee 4-H Alumni, Secretary of Nashville Area Home Economics Association, Gamma Sigma Delta, and Omega Chapter of Epsilon Sigma Phi.