

A STUDY OF THE AVAILABILITY OF REFERENCE
MATERIALS IN OKLAHOMA STUDENT-TEACHING
CENTERS AND NON-STUDENT-TEACHING
CENTERS

By

JIMMIE RAY KIBBY
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Thesis Approved:

William L. Hull

Thesis Adviser

Robert L. Price

J. H. Boyce
Dean of the Graduate College

321673

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CHAPTER I

PURPOSE AND DESIGN OF THE STUDY

Introduction

Thomas Jefferson once said,

I know no safer depository of the ultimate powers of society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education.

Written reference material has been used to inform the discretion of people since the beginning of education. The reference material used in schools today is vastly different from that of the reference material used in Thomas Jefferson's time. With the increase in new inventions in audio-visual equipment and better classroom facilities, methods of teaching have changed. However, as remarkable as the new inventions are, and not withstanding their impact upon our time, they have made no such decisive headway as an accepted and integral portion of the educational system as to threaten the displacement of the book.

The need for good reference material in supervised study and for use in making lesson plans as a student-teacher has stimulated the author's interest to study the availability of the reference materials in the high school vocational agriculture departments of Oklahoma.

Need for the Study

Agriculture is ever changing, and the changes made today must be

recorded and disseminated to the people by some means. This is usually done in the form of written reference material supplied to the county agents and vocational agriculture teachers. It is essential that these people stay abreast of reference material in order to do their job effectively. The need for this study stems from the fact that there has been an almost total absence of research on the more ubiquitous text. The lack of research seems strange since the text has been a source of dissatisfaction and a subject of controversy.

Purpose of the Study

Providing successful training experiences for beginning teachers is of vital importance. With this in mind the purpose of this study was to determine if the availability and quality of reference materials used in student-teaching centers are superior to those reference materials in vocational agriculture departments not used as student-teaching centers. The areas that need the most improvement or additions will be revealed in this study.

Scope of the Study

This study included all the schools used as student-teaching centers and a stratified random sample of schools not used as student-teaching centers during the school year of 1965 and 1966.

Limitations of the Study

This study is limited to the written reference materials in the vocational agriculture departments in Oklahoma. The emphasis is placed on textbooks that are available to the high school students. The

quality rating in this study is based on the books in the department and does not reflect the quality of magazines, pamphlets, or bulletins.

Definitions of Terms

Students -- boys regularly enrolled in vocational agriculture at the high school level.

Student-teachers -- college students enrolled in agriculture education who do their apprentice teaching for a period of nine weeks.

Student-teaching centers -- schools which have student-teachers in their vocational agriculture departments.

Reference material -- refers only to material that is written and is bound in some manner unless otherwise stated.

Procedure

This study included all the schools used as student-teaching centers during the school year of 1965-66 and twenty-two other schools that were selected at random. The randomly chosen schools were stratified by districts in the same proportion as the number of student-teaching centers for each particular district.

A list of all the vocational agriculture departments was obtained and each school was given a number by districts. Using a table of random digits, each school was selected as the corresponding numbers appeared from the list. A questionnaire was mailed to the twenty-two schools in each group. The questionnaire was returned by twenty of the twenty-two student-teaching centers and nineteen of the twenty-two non-student-teaching centers.

Figure one shows the location of the schools responding to the questionnaire.

The questionnaire included thirteen major areas of study in vocational agriculture requiring reference materials. The thirteen areas listed are: general feeding, dairy, swine, poultry, sheep, farm management, soils, field crops, pastures, horticulture, agriculture mechanics, beef, and agricultural occupations.

The quality of references was measured by the copyright date of the book and by a comparison of a selected list of reference materials for each major area. The list was compiled by the District Supervisors of Vocational Agriculture, based on their judgment as to what books should be in the vocational agriculture departments. The list of books came primarily from the approved book list of state adopted books for vocational agriculture and from book lists published by various companies. The standard list compiled by the District Supervisors of Vocational Agriculture may be found in Appendix E. The State adopted book list may be found in Appendix D.

Determining the quality of books involved the following process. Books published in 1960 or later were assigned a number value of three, provided they appeared on the State adopted book list. Books of the same date that appeared on the District Supervisors' list were assigned the number value of six. If the book appeared on both of the above lists, it was assigned the value of nine. This same system was used for books in the publication bracket of 1955 to 1959 and 1954 and earlier; however, the assigned value decreased as the publication date decreased. Refer to Appendix F for a complete table on the scoring method. Books not appearing on one of the two lists received no score.

The availability of reference materials was based on the quantity of books in each of the thirteen areas investigated in this study. A comparison was made between the quantity in each area and the mean class size of the largest class during the past five years. The author felt that if the quantity was equal to the mean class size that there would be enough books to be used as a text book. The areas of farm management and agricultural occupations were compared with the mean class size of seniors, based on the assumption that these areas were taught to older students. Refer to Tables XX and XXI for the comparison.

The data as presented in this study were tested by employing the Chi square method and by using a t test. Significant differences between the student-teaching centers and non-student-teaching centers are indicated in the tables.

Research Hypotheses

1. The student-teaching centers should have a larger quantity of reference materials than non-student-teaching centers.
2. The student-teaching centers should have more quality reference materials than those not used as student-teaching centers.

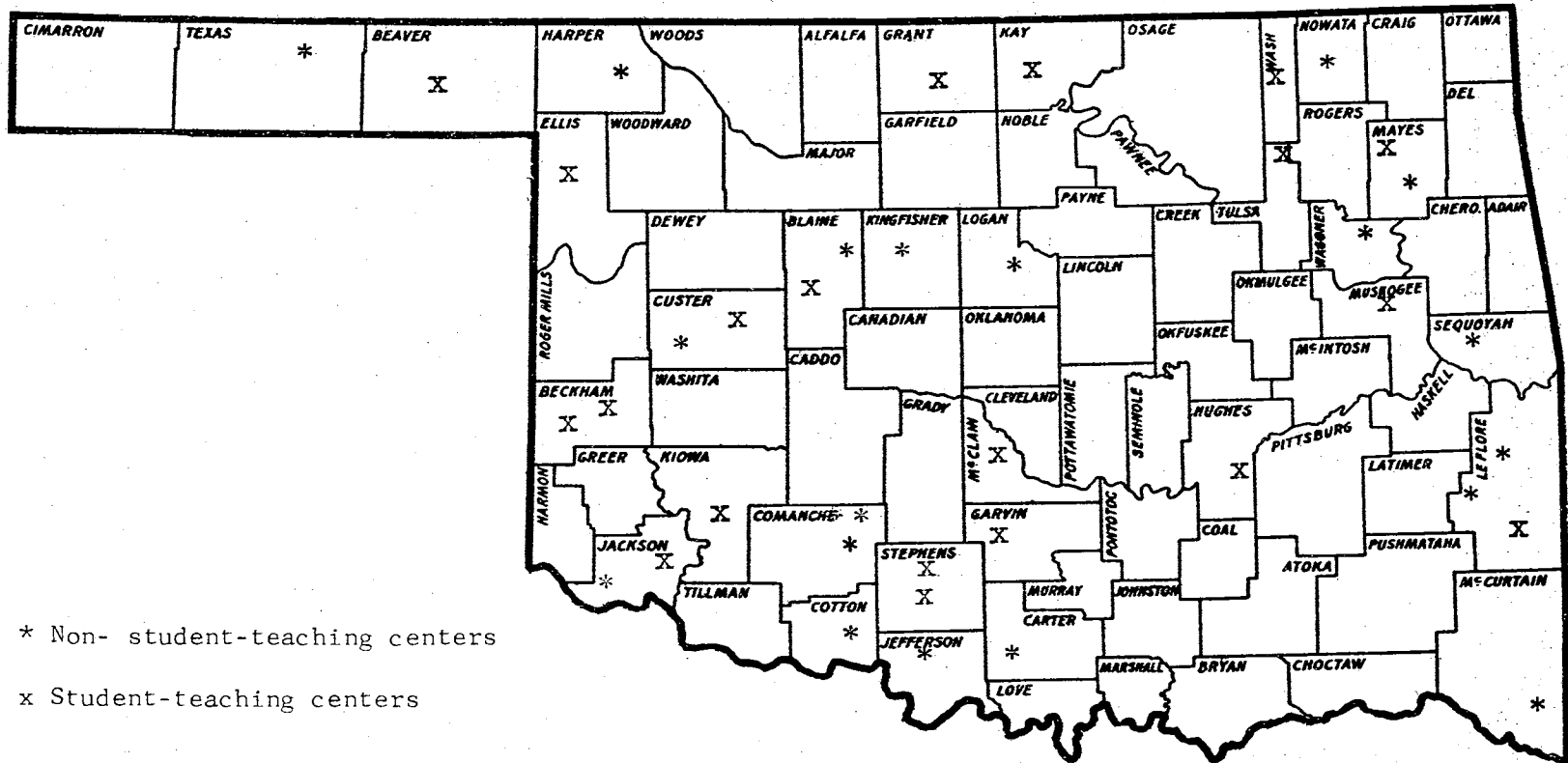


Figure 1. Location of Schools Responding to the Questionnaire

CHAPTER II

REVIEW OF LITERATURE

The neglect of the provision of an adequate supply of suitable books constitutes not a minor but a major defect in education (1). Our educational system at present is still dependent upon the teacher and the printed page, and they must continue to be the chief means of imparting knowledge, just as has been the case through century after century (3).

There are college professors of education, supervisors, subject-matter specialists, and professional writers who would do away with textbooks altogether. To them the textbook, like the love of money, is the root of all evil, a reactionary influence in the educational process. However, they seldom explain how they would improve the textbook or what they would substitute for it (1).

During the history of American education there has been an almost constant change in textbooks. The high mortality among textbooks has been brought about by a constant need for improvement. "If nothing more, the fact that man is always learning has resulted in his discarding the books children study and using books more adapted to the purpose for which they were designed." (3).

Education, more and more utilitarian, is fighting to get upon a scientific basis, and the register of this change rests as much in the textbook as in the teacher (11).

Once a book or any reference material is purchased it is usually expected to last for a period of time. This is especially true with textbooks. Many new teachers must have to suffer for the decisions that have been made by the teacher before them. A teacher should not be content to live forever with an out-of-date book any more than he would be willing to wear a suit of clothes that is ten years old and out of style but still has physical ability to hold together (6).

The textbooks of today are infinitely superior to those of the nineteenth century. No one will dispute that they are more sound pedagogically, more attractive physically, and much sturdier (1).

The textbook is a tool of education indispensable to the service of both teacher and pupil (1). The selection of reference books is just as technical a problem as the choice of tools for efficient work in any industry (9). The textbook is an accepted tool in teaching (11).

It is sometimes possible to tell when a teacher quits growing intellectually by noting the publication dates of the books on his reading list (6). A teacher who is using a fifteen-year-old text and has read no more recent books on the subject is unlikely to bring the material up-to-date (6). Actually, written reference materials are inexpensive in comparison to the total cost of education that is made effective because of them.

In the past, students were considered as something to stuff as one would a turkey. Now the student's interest is considered; therefore, the textbook should attract his interest and not repel it (4). The textbook is an aid in instruction because it saves time in organizing essential data and is a convenient means of having a definite organization of material readily available. In Cody's (5) study comparing the

relative efficiency of silent reading, simultaneous reading and listening, listening, and note taking, she found that the most advantageous method of presentation of the selections employed was silent reading. It is apparent that textbooks have been used and are now being used in teaching effectively.

The following information indicates that reference material is becoming increasingly more important. In 1939 there were 239,692,508 periodicals published; by 1954 this number was up to 449,284,696. Books published in 1939 numbered 182,319,108; by 1954 the number of books published increased to 770,840,000 (10).

With the immense yearly increase of reference materials, it should be interesting to note how well teachers in the vocational agriculture departments are keeping up-to-date. Boyd (2) found in his study that fifty-nine per cent of the instructors responding to his questionnaire indicated a need for additional reference materials.

CHAPTER III

PRESENTATION AND ANALYSIS OF DATA

Data presented in this chapter were obtained from questionnaires completed and returned by respondents representative of twenty student-teaching centers and nineteen non-student-teaching centers in Oklahoma. The questionnaires were collected and the data summarized. Tables were formulated to facilitate presentation of data covering questions included in the questionnaire. The following tables, analyses, and comments constitute a presentation of data secured in the course of this investigation.

Comparison of Characteristics of the Population

The findings as presented in Table I indicate that the teachers in student-teaching centers are older than teachers in non-student-teaching centers. One hundred per cent of the teachers in student teaching centers are twenty-seven to fifty-six years of age, while seventy-four per cent of the teachers in non-student-teaching centers are twenty-seven to fifty-six years of age.

Table II presents information concerning the number of years of teaching experience in vocational agriculture and the tenure in the present school system. Before a department is selected as a student-teaching center, the teacher must have enough tenure and experience to establish himself as a master teacher. This condition is illustrated

TABLE I
AGE OF TEACHERS RESPONDING TO THE QUESTIONNAIRE

| Age Range in Years | Student-Teaching Center | | Non-Student- Teaching Center | |
|-----------------------|----------------------------|----------|---------------------------------|-----------|
| | Number | Per Cent | Number | Per Cent |
| 21-26 | 0 | 0 | 3 | 15 |
| 27-32 | 5 | 25 | 4 | 21 |
| 33-38 | 3 | 15 | 5 | 26 |
| 39-44 | 6 | 30 | 2 | 11 |
| 45-50 | 5 | 25 | 2 | 11 |
| 51-56 | 1 | 5 | 1 | 5 |
| 57-over | <u>0</u> | <u>0</u> | <u>2</u> | <u>11</u> |
| Total | 20 | 100 | 19 | 100 |

in Table II. Table II indicates that the teachers in student-teaching centers have more teaching experience and longer tenure in the present system. Only thirty per cent of the teachers in student-teaching centers had ten years of experience or less as compared to fifty-two per cent of the teachers in non-student teaching centers. It is interesting to note that fifty-five per cent of the teachers in student-teaching centers have been teaching from eleven to twenty years in the present school system. On the other hand, only twenty-one per cent of the teachers in the non-student-teaching centers have been teaching in the present school from eleven to twenty years. Forty-two per cent of the teachers in non-student-teaching centers have been in the present school system for only one to five years.

The findings as presented in Table III indicate that the mean class size of the two types of centers is not significantly different. The freshman class size is large while the senior class is small. The largest class size reported was a freshman class with twenty-five, and the smallest class reported was a senior class of four.

Fifty-five per cent of the student-teaching centers combined their vocational agriculture classes III and IV. The non-student-teaching centers indicated that fifty-three per cent of the vocational agriculture classes III and IV were combined. This suggests that the class size in the two types of centers does not differ to any great extent.

Methods of Financing and Displaying Reference Materials

It is surprising to note in Table IV that fewer schools classified as non-student-teaching centers received "no budget" than schools with student-teaching departments.

TABLE II

PER CENT OF TEACHERS CATEGORIZED BY TOTAL EXPERIENCE TEACHING
 VOCATIONAL AGRICULTURE, TENURE IN THE PRESENT
 SYSTEM, AND TYPE OF CENTER

| Range in Years | <u>Student-Teaching Center</u> | | <u>Non-Student-Teaching Center</u> | |
|----------------|--------------------------------|----------|------------------------------------|-----------|
| | Number = 20 | | Number = 19 | |
| | Total Experience | Tenure | Total Experience | Tenure |
| 1-5 | 0 | 15 | 26 | 42 |
| 6-10 | 30 | 25 | 26 | 26 |
| 11-15 | 25 | 25 | 11 | 5 |
| 16-20 | 25 | 30 | 21 | 16 |
| 20-over | <u>20</u> | <u>5</u> | <u>16</u> | <u>11</u> |
| Total | 100 | 100 | 100 | 100 |

TABLE III

AVERAGE CLASS SIZE FOR THE PAST FIVE YEARS BY THE TYPE OF CENTER

| School Classification | Student-Teaching Center | | Non-Student- Teaching Center | |
|--------------------------|----------------------------|-----------|---------------------------------|-----------|
| | Mean Number | Per Cent | Mean Number | Per Cent |
| Freshmen | 12 | 30 | 13 | 31 |
| Sophomores | 10.6 | 26 | 11.3 | 27 |
| Juniors | 9.4 | 24 | 9.2 | 22 |
| Seniors | <u>7.9</u> | <u>20</u> | <u>8.1</u> | <u>20</u> |
| Total | 39.9 | 100 | 41.6 | 100 |

After analyzing the data in Table IV, one can note no significant difference in the per cent of the budgets used for reference material in the one to twenty-five per cent range of both types of centers. The major difference was in the seventy-six to one hundred per cent range where the non-student-teaching centers reported eleven per cent as compared to zero per cent in student-teaching centers. One of the two teachers reporting an expenditure of seventy-six to one hundred per cent had nine years experience in the present school while the other teacher had seventeen years experience in the present school.

Table V indicates that the school was responsible for seventy-six to one hundred per cent of the finances for text and reference materials in eighty per cent of the student-teaching centers. This was a notable difference from the non-student-teaching centers which received only sixty-three per cent of their reference material finances in the seventy-six to one hundred per cent bracket.

The questionnaire requested that the teacher check the following means of obtaining reference material and estimate the per cent of support received from each source. Purchased by the school, bought by money raised by the Future Farmers of America chapter, bought with money collected as fees from Vocational Agriculture students, and other means were the categories listed in the questionnaire. Each teacher was able to give the actual per cent of financing by each method. Therefore, the teacher could indicate the various means of financing the reference materials if there were more than one.

Non-student-teaching centers indicated that five per cent received no finances from the school. Also, one hundred per cent of the non-student-teaching centers received no finances from agricultural fees

TABLE IV

EXPENDITURE OF ANNUAL BUDGET RECEIVED FROM THE SCHOOL DISTRICT
FOR REFERENCE MATERIALS BY THE TYPE OF CENTER

| Per Cent of Budget Used for Reference Material | Student-Teaching Center | | Non-Student- Teaching Center | |
|------------------------------------------------------|----------------------------|----------|---------------------------------|-----------|
| | Number | Per Cent | Number | Per Cent |
| No Budget Received | 15 | 75 | 13 | 68 |
| 1-25 | 5 | 25 | 4 | 21 |
| 26-50 | 0 | 0 | 0 | 0 |
| 51-75 | 0 | 0 | 0 | 0 |
| 76-100 | <u>0</u> | <u>0</u> | <u>2</u> | <u>11</u> |
| Total | 20 | 100 | 19 | 100 |

TABLE V
PER CENT OF FINANCING TEXT AND REFERENCE BOOKS BY METHODS
AND TYPE OF CENTER

| Per Cent of Financing | Student-Teaching Center | | | Non-Student-Teaching Center | | |
|-----------------------------|-------------------------|----------|----------------------|--------------------------------|-----------|----------------------|
| | Number = 20 | | | Number = 19 | | |
| | School | FFA | Agricultural Fees | School | FFA | Agricultural Fees |
| 0 | 0 | 55 | 70 | 5 | 52 | 100 |
| 1-25 | 5 | 30 | 30 | 11 | 16 | 0 |
| 26-50 | 10 | 10 | 0 | 16 | 16 | 0 |
| 51-75 | 5 | 0 | 0 | 5 | 0 | 0 |
| 76-100 | <u>80</u> | <u>5</u> | <u>0</u> | <u>63</u> | <u>16</u> | <u>0</u> |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |

paid by the students. Seventy per cent of the student-teaching centers received no finances from the agricultural fees paid by the students.

An analysis of the data in Table V reveals pertinent evidence concerning the financing of reference and text materials. The schools and the Future Farmers of America chapter can be given credit for the financing of the larger portion of reference materials in the two types of centers.

Table VI compares the number of different magazines in the two types of centers. Although the table reveals no appreciable difference, there are some interesting indications. Table VI indicates that the student-teaching centers had a larger number of different magazines; therefore, a greater quantity of current information was made available to the high school student. One center indicated that there were no magazines in the department. This school was a student-teaching center. The school indicating the largest number of different magazines was a non-student-teaching center. The department had thirty various magazines available. A large per cent of the centers fell within a range of six to seventeen magazines.

Table VII is concerned with the methods of displaying magazines in the two types of centers. There was no noticeable contrast in the display methods in the two types of centers. One teacher who reported a different method of display used a "self made display case with storage."

It is interesting to note that in both types of centers a large per cent indicated placing magazines in cabinets or shelves. The method of placing magazines in a filing cabinet was not used by either type of center.

TABLE VI
 NUMBER OF DIFFERENT MAGAZINES THAT ARE AVAILABLE IN
 THE TWO TYPES OF CENTERS

| <u>Number of Different Magazines Range</u> | <u>Student-Teaching Center</u> | | <u>Non-Student- Teaching Center</u> | |
|--------------------------------------------------------|------------------------------------|-----------------|-----------------------------------------|-----------------|
| | <u>Number Indicating</u> | <u>Per Cent</u> | <u>Number Indicating</u> | <u>Per Cent</u> |
| 0 | 1 | 5 | 0 | 0 |
| 1-5 | 2 | 10 | 3 | 16 |
| 6-11 | 4 | 20 | 8 | 42 |
| 12-17 | 6 | 30 | 6 | 32 |
| 18-23 | 4 | 20 | 1 | 5 |
| 24-Over | <u>3</u> | <u>15</u> | <u>1</u> | <u>5</u> |
| Total | 20 | 100 | 19 | 100 |

TABLE VII
METHODS OF DISPLAYING MAGAZINES BY THE TYPE OF CENTER

| Methods Used | Student-Teaching Center | | Non-Student- Teaching Center | |
|----------------------------------------|----------------------------|----------|---------------------------------|----------|
| | Number | Per Cent | Number | Per Cent |
| Displayed openly on walls or tables | 7 | 35 | 8 | 42 |
| Placed in cabinets or shelves | 11 | 55 | 11 | 58 |
| Placed in a filing cabinet | 0 | 0 | 0 | 0 |
| Other means | 1 | 5 | 0 | 0 |
| No magazines to display | <u>1</u> | <u>5</u> | <u>0</u> | <u>0</u> |
| Total | 20 | 100 | 19 | 100 |

There was no distinct variation between the methods of displaying bulletins as reported by the two types of centers. In Table VIII it is interesting to note that both types of centers reported a high per cent of the bulletins were placed in cabinets or shelves. Second in importance was the use of filing cabinets for the display of bulletins.

The findings as presented in Table IX indicate that one hundred per cent of the student-teaching centers placed their books on shelves. In the non-student-teaching centers, ninety-five per cent of the books were placed on shelves. One school in this group reported using a cabinet to display the books.

Table X is concerned with the filing system used for filing unbound reference materials. This table indicates that sixty-five per cent of the student-teaching centers did not catalogue their unbound reference materials. There were different methods of filing unbound reference material; however, none used a catalogued system. Table X also indicates that sixty-three per cent of the non-student-teaching centers did not catalogue unbound reference materials.

These data presented in Table X indicate no significant difference between the two types of centers concerning their methods for filing unbound reference material.

Since this study is concerned with the availability of reference materials to the high school student enrolled in vocational agriculture, the author felt it important to investigate the procedure for allowing students to use reference materials after school hours. Table XI indicates no significant differences in the procedure of the two types of centers. The author was surprised to see the number of centers reporting that students were not allowed to use reference materials

TABLE VIII
METHODS OF DISPLAYING BULLETINS BY THE TYPE OF CENTER

| Methods | Student-Teaching Center | | Non-Student- Teaching Center | |
|------------------------------------|----------------------------|----------|---------------------------------|----------|
| | Number | Per Cent | Number | Per Cent |
| Displayed on the wall or tables | 3 | 15 | 3 | 16 |
| Placed in cabinets or shelves | 11 | 55 | 11 | 58 |
| Placed in a filing cabinet | 6 | 30 | 5 | 26 |
| Other means | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| Total | 20 | 100 | 19 | 100 |

TABLE IX
METHODS OF DISPLAYING BOOKS BY THE TYPE OF CENTER

| Methods | Student-Teaching Center | | Non-Student- Teaching Center | |
|---------------------|----------------------------|----------|---------------------------------|----------|
| | Number | Per Cent | Number | Per Cent |
| Displayed on tables | 0 | 0 | 0 | 0 |
| Placed on shelves | 20 | 100 | 18 | 95 |
| Other means | <u>0</u> | <u>0</u> | <u>1</u> | <u>5</u> |
| Total | 20 | 100 | 19 | 100 |

TABLE X

METHODS OF FILING UNBOUND REFERENCE MATERIALS BY THE TYPE OF CENTER

| Method | Student-Teaching Center | | Non-Student- Teaching Center | |
|----------------------------------------------------------------------------|----------------------------|-----------|---------------------------------|----------|
| | Number | Per Cent | Number | Per Cent |
| Placed in a file cabinet that is catalogued | 5 | 25 | 6 | 32 |
| Placed in a file cabinet that is not catalogued | 3 | 15 | 3 | 16 |
| Placed in shelves not catalogued | 6 | 30 | 4 | 21 |
| Placed in shelves that are catalogued | 2 | 10 | 1 | 5 |
| Placed in open area where items can be seen readily but uncatalogued | 2 | 10 | 4 | 21 |
| No system used | <u>2</u> | <u>10</u> | <u>1</u> | <u>5</u> |
| Total | 20 | 100 | 19 | 100 |

TABLE XI
 PROCEDURE FOR ALLOWING STUDENTS TO USE REFERENCE
 MATERIAL AFTER SCHOOL HOURS

| Procedure | Student-Teaching Center | | Non-Student- Teaching Center | |
|----------------------------------------------------------------|----------------------------|-----------|---------------------------------|-----------|
| | Number | Per Cent | Number | Per Cent |
| Students check books by signing a book card | 15 | 75 | 14 | 74 |
| Students take book at their own will | 2 | 10 | 3 | 16 |
| Students must check books from school librarian | 0 | 0 | 0 | 0 |
| Students are not allowed to use books after school hours | <u>3</u> | <u>15</u> | <u>2</u> | <u>10</u> |
| Total | 20 | 100 | 19 | 100 |

after school hours.

A notable percentage of centers reported that students could take the books at their own will. This suggests a lack of systematic management of books.

It should be noted that no center indicated that reference material used after school had to be checked from the school librarian.

In analyzing these data presented in Table XII, it was found that the two types of centers did not differ greatly in indicating plans to purchase books in the coming school year. It is encouraging to note that in both the student-teaching centers and non-student-teaching centers only a small percentage reported no plans to purchase books during the school year of 1966 and 1967. The teacher in the non-student-teaching center did not plan to buy books because he felt that he had the basic books, and any new books would be too quickly outdated. The two teachers in the student-teaching centers made no comment on their reason for not planning to purchase books.

Evaluational Reference Materials

The author felt that it was important to find the teacher's own evaluation of the quality of reference and text books in his center. In Table XIII twenty per cent of the student-teaching centers indicated that their reference material and text books were completely adequate. The majority of the student-teaching centers indicated that their reference material and text books were adequate but could be improved.

More non-student-teaching centers reported an inadequate quality of reference and text books. There was a difference of twenty-seven

TABLE XII

SCHOOLS INDICATING PLANS TO PURCHASE BOOKS
IN THE SCHOOL YEAR OF 1966-67

| Response | Student-Teaching Center | | Non-Student- Teaching Center | |
|----------|----------------------------|-----------|---------------------------------|----------|
| | Number | Per Cent | Number | Per Cent |
| Yes | 18 | 90 | 18 | 95 |
| No | <u>2</u> | <u>10</u> | <u>1</u> | <u>5</u> |
| Total | 20 | 100 | 19 | 100 |

TABLE XIII
TEACHER'S EVALUATION OF THE QUALITY OF TEXT AND
REFERENCE BOOKS BY THE TYPE OF CENTER

| Evaluation | Student-Teaching Center | | Non-Student- Teaching Center | |
|--------------------------------------|----------------------------|-----------|---------------------------------|-----------|
| | Number | Per Cent | Number | Per Cent |
| Completely adequate | 4 | 20 | 1 | 5 |
| Adequate but could be improved | 11 | 55 | 8 | 42 |
| Sufficient to meet the needs only | 3 | 15 | 3 | 16 |
| Inadequate | <u>2</u> | <u>10</u> | <u>7</u> | <u>37</u> |
| Total | 20 | 100 | 19 | 100 |

TABLE XIV
 MEAN RANKING OF AREAS OF STUDY IN VOCATIONAL
 AGRICULTURE BY TYPE OF CENTER

| Area | Student-Teaching Center | | Non-Student- Teaching Center | |
|--------------------------|--------------------------------|---------------------------|---------------------------------|---------------------------|
| | Number Indicating a Rank | Mean Rank ^a | Number Indicating a Rank | Mean Rank ^a |
| General Feeding | 7 | 4.0 | 5 | 2.0 |
| Dairy | 4 | 2.7 | 0 | 0 |
| Beef | 10 | 2.7 | 9 | 3.2 |
| Swine | 7 | 3.4 | 8 | 4.5 |
| Poultry | 3 | 4.3 | 2 | 4.5 |
| Sheep | 8 | 4.5 | 1 | 5.0 |
| Farm Management | 12 | 3.3 | 16 | 2.9 |
| Soils | 7 | 5.0 | 16 | 3.3 |
| Field Crops | 8 | 3.1 | 10 | 4.2 |
| Pastures | 11 | 4.0 | 13 | 4.9 |
| Horticulture | 9 | 3.1 | 6 | 3.8 |
| Farm Mechanics | 12 | 3.0 | 18 | 2.7 |
| Agricultural Occupations | 16 | 3.1 | 13 | 3.5 |

^aA rating of 1 = area of greatest need; a rating of 6 = least need for reference material of the items ranked.

per cent in the student-teaching centers and the non-student-teaching centers giving a rating of inadequate text and reference materials.

The Chi square method of testing was used in Table XIV. On the questionnaire each teacher was asked to rank the six most important areas in which additional reference material was needed in his department. Since thirteen areas were included on the questionnaire, each teacher did not rank seven areas.

When considered individually, there was an interesting contrast in the ranking pattern for the two types of centers. The non-student-teaching centers ranked farm mechanics highest in need. This was contrasted by the student-teaching centers in that they ranked agricultural occupations highest in need.

When both rankings of the two types of centers were combined, the ranking was as follows: first, farm mechanics; second, agricultural occupations; third, farm management; fourth, pastures, fifth, soils; and sixth was beef. Although the ranking varied somewhat, the results showed no significant difference between the two types of centers.

It should be noted that the non-student-teaching centers did not rank dairy as one of the six areas where additional material was needed. For further information refer to Appendix I and J for frequency counts of the actual ranking of the areas by the teachers.

Table XV indicates that the areas of general feeding and farm mechanics have a high quality rating in both types of centers. After analyzing data presented in Table XV, it was evident that the rating of book quality in both types of centers was low in sheep, soils, field

TABLE XV
 MEAN QUALITY RATING OF BOOKS AVAILABLE BY THE TYPE OF CENTER

| Area | Student-Teaching | Non-Student | Difference |
|--------------------------|------------------|-----------------|------------|
| | Center | Teaching Center | |
| | Mean | Mean | |
| | Number | Number | |
| General Feeding | 15.0 | 13.0 | 2.0 |
| Dairy | 4.8 | 1.3 | 3.5 |
| Beef | 6.9 | 8.6 | 1.7 |
| Swine | 3.8 | 5.8 | 2.0 |
| Poultry | 4.3 | 2.5 | 1.8 |
| Sheep | 3.7 | 1.9 | 1.8 |
| Farm Management | 5.6 | 1.8 | 3.8 |
| Soils | 3.9 | 2.5 | 1.4 |
| Field Crops | 1.9 | 0.74 | 1.2 |
| Pastures | 6.2 | 3.6 | 2.6 |
| Horticulture | 3.1 | 1.4 | 1.7 |
| Farm Mechanics | 17.3 | 11.1 | 6.2 |
| Agricultural Occupations | <u>2.1</u> | <u>1.9</u> | <u>0.2</u> |
| Total | 65.1 | 56.1 | 9.0 |

crops, horticulture, and agricultural occupations.

The total mean quality of the two types of centers was not significantly different. The data for this table was tested using a t test.

In determining the information for Tables XVI and XVII, the teacher evaluated the quality and quantity of the text and reference material in his department. Tables XVI and XVII are concerned with the accuracy of the teacher's perception of the quality and quantity of his text and reference materials in comparison to the quality rating assigned to his reference materials by the author. The total mean quantity of reference material was also compared.

It should be noted that more student-teaching centers rated their text and reference materials completely adequate than did the non-student-teaching centers. A large number of the teachers in Table XVII indicated that the quality was adequate but could be improved. After analyzing these data, we find that those teachers rating their text and reference materials as sufficient to meet the needs only had a higher mean quality rating and a larger quantity than those who rated their material as adequate but could be improved. This would suggest that some of the teachers do not have a clear concept as to the quality of their reference material.

Table XVIII indicated a notable difference in the quantity of material in the two types of centers. The difference in quantity was significant at the .02 per cent level. For further information concerning the testing, refer to the statistical table in Appendix K.

The main difference in the two types of centers tends to be in the areas of poultry, sheep, farm management, soils, and farm mechanics.

TABLE XVI

A COMPARISON OF THE TEACHER'S EVALUATION OF THE QUALITY AND
 QUANTITY OF TEXT AND REFERENCE BOOKS WITH THE STANDARD
 RATING DEVICE IN THE STUDENT-TEACHING CENTERS

| Teacher's Evaluation | Number | Mean Total Quality | Mean Total Quantity |
|-----------------------------------|--------|--------------------------|---------------------------|
| Completely adequate | 4 | 136.0 | 303.5 |
| Adequate but could be improved | 11 | 68.3 | 181.0 |
| Sufficient to meet needs only | 3 | 80.0 | 214.7 |
| Inadequate | 2 | 41.0 | 167.5 |

TABLE XVII

A COMPARISON OF THE TEACHER'S EVALUATION OF THE QUALITY AND
 QUANTITY OF TEXT AND REFERENCE BOOKS WITH THE STANDARD
 RATING DEVICE IN THE NON-STUDENT-TEACHING CENTERS

| Teacher's Evaluation | Number | Mean Total Quality | Mean Total Quantity |
|-----------------------------------|--------|--------------------------|---------------------------|
| Completely adequate | 1 | 39 | 237 |
| Adequate but could be improved | 8 | 59 | 175 |
| Sufficient to meet needs only | 3 | 65 | 109 |
| Inadequate | 7 | 49 | 83 |

TABLE XVIII
 TOTAL MEAN NUMBER OF TEXT AND REFERENCE BOOKS
 BY THE TYPE OF CENTER

| Area | Student-Teaching Center | Non-Student- Teaching Center | Difference |
|--------------------------|----------------------------|---------------------------------|------------|
| | Mean Number | Mean Number | |
| General Feeding | 32.9 | 33.2 | 3.0 |
| Dairy | 14.2 | 10.9 | 3.3 |
| Beef | 19.1 | 15.1 | 4.0 |
| Swine | 13.5 | 10.1 | 3.4 |
| Poultry | 14.1 | 7.2 | 6.9 |
| Sheep | 16.1 | 5.6 | 10.5 |
| Farm Management | 18.6 | 9.4 | 9.2 |
| Soils | 19.3 | 8.6 | 10.7 |
| Field Crops | 11.8 | 7.7 | 4.1 |
| Pastures | 7.8 | 5.4 | 2.4 |
| Horticulture | 5.8 | 2.1 | 3.7 |
| Farm Mechanics | 32.8 | 20.6 | 12.2 |
| Agricultural Occupations | <u>1.6</u> | <u>1.6</u> | <u>0</u> |
| Total | 207.6 | 137.5 | 70.1 |

The author felt that in order to give a good indication of the areas with sufficient textbooks per pupil, he must compare the mean number of copies per text to the mean class size. The t test was used to test the significance of the mean number of copies per text. There was a definite difference at the .02 level between the two types of centers in the number of copies per text.

The data as presented in Tables XIX and XX indicate that both types of centers use only one text per area except in the area of general feeding. The mean number of texts in general feeding was more than two in both types of centers.

The student-teaching centers had a smaller number of copies per text than the largest mean class size in the following areas: field crops, pastures, horticulture, and agriculture occupations. The non-student-teaching centers had a smaller number of copies per text in all areas except general feeding and farm mechanics.

TABLE XIX

MEAN NUMBER OF TEXTS COMPARED TO THE MEAN CLASS SIZE
BY AREAS OF STUDY IN STUDENT-TEACHING CENTERS

| Area | Mean Class Size | Mean Number of Different Text | Mean Number of Copies Per Text |
|--------------------------|-----------------------|-------------------------------------|--------------------------------------|
| General Feeding | 12 | 2.3 | 30.5 |
| Dairy | 12 | 0.8 | 11.3 |
| Beef | 12 | 1.3 | 15.7 |
| Swine | 12 | 0.8 | 11.3 |
| Poultry | 12 | 0.8 | 10.5 |
| Sheep | 12 | 1.2 | 14.0 |
| Farm Management | 8 | 1.3 | 14.9 |
| Soils | 12 | 1.3 | 15.8 |
| Field Crops | 12 | 0.8 | 9.0 |
| Pastures | 12 | 0.5 | 5.4 |
| Horticulture | 12 | 0.3 | 2.8 |
| Farm Mechanics | 12 | 1.9 | 29.1 |
| Agricultural Occupations | 8 | 0.1 | 1.1 |

TABLE XX

MEAN NUMBER OF TEXTS COMPARED TO THE MEAN CLASS SIZE BY
AREAS OF STUDY IN NON-STUDENT-TEACHING CENTERS

| Area | Size | Mean Number of Different Text | Mean Number of Copies Per Text |
|--------------------------|------|-------------------------------------|--------------------------------------|
| General Feeding | 12 | 2.5 | 29.5 |
| Dairy | 12 | 0.7 | 8.3 |
| Beef | 12 | 1.1 | 11.6 |
| Swine | 12 | 0.8 | 7.7 |
| Poultry | 12 | 0.5 | 6.5 |
| Sheep | 12 | 0.3 | 3.5 |
| Farm Management | 8 | 0.7 | 7.7 |
| Soil | 12 | 0.6 | 6.2 |
| Field Crops | 12 | 0.5 | 4.6 |
| Pastures | 12 | 0.4 | 3.9 |
| Horticulture | 12 | 0.1 | 0.7 |
| Farm Mechanics | 12 | 1.3 | 17.3 |
| Agricultural Occupations | 8 | 0.0 | 0.0 |

CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

As previously stated, the primary purpose of this study was to determine, as accurately as feasible within the scope of the study, the availability of reference materials in student-teaching centers and non-student-teaching centers.

Information presented in this study was obtained from questionnaires. These questionnaires were completed and returned by teachers representative of twenty student-teaching centers and nineteen non-student-teaching centers in Oklahoma.

Tables included in this study consisted of comparisons of: age; total teaching experience and tenure in the present school system; methods of displaying magazines, bulletins, books; methods of financing text and reference materials; quantity measures and quality ratings of text and reference materials.

Based upon the findings of this study, it was conclusive that the quality of reference material in student-teaching centers was not superior to that of the non-student-teaching centers. However, it was evident that the student-teaching centers had a larger quantity of reference material.

Conclusions

Based upon an analysis of data presented in this study, certain conclusions can be presented concerning the availability of reference materials in the two types of centers. The following is presented as a summary of certain of these conclusions.

1. As indicated in the comparison of the characteristics of the two types of centers, the teachers in the student-teaching centers have more years of teaching experience and a longer association with the present school than those in non-student-teaching centers.
2. A comparison of the enrollment in the two types of centers indicates that the class size is much the same.
3. It is evident that a large portion of the schools do not receive an annual budget. However, an analysis shows that the schools financed a major portion of the books. This suggests that funds are received directly for the purchase of books as the need arises rather than receiving an annual budget.
4. It can be concluded that the majority of the vocational agriculture departments in Oklahoma have more than six magazines.
5. Almost one hundred per cent of the teachers surveyed indicated that they displayed their books on shelves. It can be concluded that this method is the most frequently used method of displaying books.
6. Upon comparing the quality rating given a teacher's reference materials to the teacher's evaluation of his reference

materials, it was found that the teachers in the non-student-teaching centers had a more accurate perception of their reference material quality and quantity than did the teachers in the student-teaching centers.

7. The filing of unbound reference material without catalogueing was found to be a practice in over sixty per cent of the two types of centers. This would lead to the conclusion that schools in both types of centers were lacking a standard filing system.
8. Most schools indicated plans to purchase additional books during the school year of 1966 and 1967. Hopefully, they will improve the future quality and quantity of the books in these centers.
9. It can be concluded that additional reference material is needed in the two types of centers. The teacher's ranked the greatest need for reference material in the following areas: farm mechanics, farm management, agricultural occupations, and pastures. This finding agreed with the teacher's ranking except agricultural occupations was second in importance.
10. Analysis of data indicated the quality rating of reference material in the two types of centers was not significantly different. However, student-teaching centers had a larger quantity of books available to the students.

The author felt that sufficient information had been derived from this study to make certain recommendations. In summary are the following recommendations.

1. Some departments had less than six magazines. This number seems inadequate to motivate student exploratory reading. More magazines should be purchased by these departments.
2. At the time of this study five schools did not allow students to check out books after school hours. It is recommended that these schools organize a procedure which would permit the use of books after school hours.
3. It is recommended that the two student-teaching centers reporting no filing system for their unbound reference materials organize an appropriate system. In addition to being beneficial to that department, it would also provide better professional training for the student teachers.

Since providing useful training experience for beginning teachers is of vital importance, the author recommends further studies be conducted concerning the student-teaching programs. The author feels that this type of study would be valuable to those responsible for the training of future teachers.

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APPENDIX A

**OKLAHOMA STATE UNIVERSITY • STILLWATER**Department of Agricultural Education
Frontier 2-6211, Ext. 444

74074

February 21, 1966

Dear

Enclosed you will find a questionnaire concerned with the reference books presently in your vocational agriculture department.

To secure information for this study I am asking you to fill out the enclosed questionnaire which was made as short as possible in order that it will not consume too much of your valuable time.

It is hoped that this study will aid present and prospective teachers of vocational agriculture by determining the areas of reference material that need improvement.

Your cooperation in filling out the questionnaire and your immediate response for its return will be greatly appreciated. Feel free in responding; individual responses will be kept confidential.

Sincerely,

Jimmie Kibby
115 Lowry
Stillwater, Oklahoma

Robert R. Price
Professor and Head
Agricultural Education Department

APPENDIX B

115 Lowry
Stillwater, Oklahoma
March 4, 1966

Dear Mr.

Recently I mailed you a questionnaire which dealt with the reference material in your vocational agriculture department. I realize answering the questions will require about 30 to 40 minutes of your time. Perhaps you could ask a student to help. We feel this information will be important.

Your cooperation in filling out the questionnaire and your immediate response for its return will be greatly appreciated. Another questionnaire along with a self-addressed stamped envelope is enclosed for your convenience.

Please disregard this note if you have already returned the questionnaire prior to receiving this letter.

Sincerely,

Jimmie Kibby

Enclosure

APPENDIX C

QUESTIONNAIRE

| |
|--------------------------------------------------------------|
| Return to: Jimmie Kibby 115 Lowry Stillwater, Okla. |
|--------------------------------------------------------------|

School _____

Instructor _____ Your age _____

Total number of years teaching Vocational Agriculture _____

Total number of years teaching Vocational Agriculture at present school _____

During the last five years what has been the average total enrollment in Vocational Agriculture? _____

During the last five years what has been the average yearly enrollment of:

1. Freshmen _____
2. Sophomores _____
3. Juniors _____
4. Seniors _____

Do you combine any of your classes? _____ If yes, which ones? _____

Does the Vocational Agriculture Department receive an annual budget from the school district? _____

What portion of the budget is used for annual purchase of written published materials such as books and magazines? _____%

How do you secure books, magazines, and other written reference materials?

- a. Purchased by the school _____ Percentage _____
- b. Bought by money raised by the FFA Chapter _____ Percentage _____
- c. Bought with money collected as fees from Vocational Agriculture students _____ Percentage _____
- d. Other means (list) _____ Percentage _____

Number of different magazines displayed in your Vocational Agriculture Department is _____

How are the magazines displayed? (check one)

- a. Displayed openly on the wall or tables _____
- b. Placed in cabinets or shelves _____
- c. Placed in a filing cabinet _____
- d. Other means (list) _____

How are your bulletins displayed? (Check one)

- a. Displayed on the wall or tables _____
- b. Placed in cabinets or shelves _____
- c. Placed in a filing cabinet _____
- d. Other means (list) _____

How are your books displayed? (Check one)

- a. Displayed on tables _____
- b. Placed on shelves _____
- c. Other means (list) _____

Evaluate the quality of the reference and text books in your department.
(Check one)

- a. Completely adequate _____
- b. Adequate but could be improved _____
- c. Sufficient to meet the needs only _____
- d. Inadequate _____
- e. No opinion _____

What procedure is used to allow students to use reference material after school hours? (Check one)

- a. Students check books by signing a book card _____
- b. Students take books at their own will _____
- c. Students must check out books from school librarian _____
- d. Students are not allowed to use books after school hours _____
- e. Other means (list) _____

Do you plan to buy books during the next school year? _____

Rank the six most important areas where you need additional books. (Rank according to need. Example: 1-most needed; 2-next one most needed; etc.)

- | | |
|--------------------------|----------------------------------|
| a. General Feeding _____ | h. Soils _____ |
| b. Dairy _____ | i. Field Crops _____ |
| c. Beef _____ | j. Pastures _____ |
| d. Swine _____ | k. Horticulture _____ |
| e. Poultry _____ | l. Farm Mechanics _____ |
| f. Sheep _____ | m. Agriculture Occupations _____ |
| g. Farm Management _____ | |

Describe your filing system for unbound written reference material that is available for students' use. (Check one)

- a. Placed in a file cabinet that is cataloged _____
- b. Placed in a file cabinet that is not cataloged _____
- c. Placed in shelves not cataloged _____
- d. Placed in shelves that are cataloged _____
- e. Placed in open area where items can be seen readily but uncataloged _____
- f. Placed in open area where items can be seen readily but cataloged _____
- g. No system is used _____

On the following pages is a list of books. If you have a copy or copies of a book, indicate the number; if not, leave the space blank.

| | | | Number of Copies |
|--------------------------------------------------------|-------------------------------|------|---------------------|
| I. General Feeding | | | |
| <u>Livestock Management</u> | Coffey & Jackson | 1949 | _____ |
| <u>Feeds and Feeding</u> | Morrison | 1948 | _____ |
| <u>Feeds and Feeding</u> | Morrison | 1958 | _____ |
| <u>Raising Livestock</u> | Peters & Deyre | 1946 | _____ |
| <u>The Livestock Book</u> | Thompson | 1950 | _____ |
| <u>The Stockman's Handbook</u> | Ensminger | 1959 | _____ |
| <u>Handbook of Feedstuffs</u> | Seiden & Pfander | 1957 | _____ |
| <u>Animal Nutrition</u> | Maynard & Loosi | 1956 | _____ |
| <u>Approved Practices in Feeds & Feeding</u> | Cassard | 1956 | _____ |
| <u>Mineral Nutrition & The Balance of Life</u> | Gilbert | 1957 | _____ |
| <u>Others (list) _____</u> | | | _____ |
| II. Dairy | | | |
| <u>Dairy Farming in the South</u> | Thomas, Reaves, & Pagram | 1944 | _____ |
| <u>Dairy Cattle Husbandry</u> | Lederle Lab. | 1952 | _____ |
| <u>Dairy Cattle Feeding & Management</u> | Henderson, Lasson & Putney | 1947 | _____ |
| <u>Dairy Science</u> | Peterson | 1939 | _____ |
| <u>Dairy Farming</u> | Peterson & Field | 1953 | _____ |
| <u>Dairy Production</u> | Diggins & Bundy | 1955 | _____ |
| <u>Dairy Cattle & Milk Production</u> | Eckles & Anthony | 1956 | _____ |
| <u>Dairy Manufacturing Processes</u> | Fouts & Freeman | 1948 | _____ |
| <u>Successful Dairying</u> | Knodt | 1954 | _____ |

| II. Dairy (Continued) | | | Number of Copies |
|-----------------------------------------|------------------------------------------------|------|---------------------|
| <u>Developing a Profitable Dairy</u> | | | |
| <u>Herd</u> | Moore & Gildow | 1953 | |
| <u>Judging Dairy Cattle</u> | Harrison, Strohmeier, Jr., & Carpenter, Jr. | 1940 | |
| <u>Milk Production & Processing</u> | Judkins & Keener | 1960 | |
| <u>Dairy Profits</u> | Fraser | 1949 | |
| Others (list) | | | |
| | | | |
| III. Beef | | | |
| <u>Beef Production in The South</u> | Williams | 1944 | |
| <u>Beef Production in The South</u> | Williams | 1950 | |
| <u>Beef Cattle</u> | Snapp | 1948 | |
| <u>Beef Cattle</u> | Snapp | 1952 | |
| <u>Elements of Livestock Judging</u> | Smith | 1946 | |
| <u>Beef Cattle Science</u> | Ensminger | 1960 | |
| <u>Beef Production</u> | Diggins & Bundy | 1956 | |
| <u>Cattle and Men</u> | Asdell | 1955 | |
| <u>Selecting, Fitting, Showing</u> | | | |
| <u>Beef Cattle</u> | Nordby & Lattig | 1956 | |
| <u>Approved Practices in Beef</u> | | | |
| <u>Production</u> | Juergenson & Mortenson | 1958 | |
| Others (list) | | | |
| | | | |
| IV. Swine | | | |
| <u>Approved Practices in Swine</u> | | | |
| <u>Production</u> | Cook | 1948 | |
| <u>Swine Enterprise</u> | Anderson | 1945 | |
| <u>Swine Production in the South</u> | Southwell, Wheeler, & Duncan | 1950 | |
| <u>Swine Science</u> | Ensminger | 1961 | |
| <u>Swine Management</u> | Anderson | 1950 | |
| <u>Swine Management</u> | Anderson | 1957 | |
| <u>Swine Production</u> | Carrol & Krider | 1950 | |
| <u>Raising Swine</u> | Doyoe & Krider | 1952 | |
| <u>Hog Profits for Farmers</u> | McMillen | 1952 | |
| <u>Approved Practices in Swine</u> | | | |
| <u>Production</u> | Cook & Juergenson | 1959 | |
| <u>Selecting, Fitting, Showing</u> | | | |
| <u>Swine</u> | Nordby & Lattig | 1956 | |
| <u>Southern Hog Growing</u> | Scarborough | 1958 | |
| Others (list) | | | |
| | | | |
| V. Poultry | | | |
| <u>Standard of Perfection</u> | American Poultry Assn. | 1948 | |
| <u>Poultry Production in the South</u> | Chestnut & King | 1948 | |
| <u>Farm Poultry Production</u> | Card & Henderson | 1948 | |

| | | | Number of Copies |
|-----------------------------------------------------|---------------------------------------|------|---------------------|
| V. Poultry (Continued) | | | |
| <u>Poultry Farming</u> | Jull | 1945 | _____ |
| <u>Farm Poultry Production</u> | Wilson & Card | 1956 | _____ |
| <u>Practical Poultry Management</u> | Rice & Botsford | 1949 | _____ |
| <u>Approved Practices in Poultry Production</u> | Juergenson & Cook | 1955 | _____ |
| <u>Poultry Production</u> | Card | 1961 | _____ |
| <u>Profitable Poultry Production</u> | Parnell | 1957 | _____ |
| <u>Your Future in Poultry Farming</u> | Goodman & Tudor | 1960 | _____ |
| <u>Scientific Feeding of Chickens</u> | Titus | 1955 | _____ |
| <u>Poultry Production</u> | Bundy & Diggins | 1960 | _____ |
| <u>Livestock & Poultry Production</u> | Bundy | 1954 | _____ |
| <u>Others (list)</u> | | | _____ |
| VI. Sheep | | | |
| <u>Sheep</u> | Horlacker & Hammond | 1942 | _____ |
| <u>Sheep</u> | Horlacker & Hammond | 1950 | _____ |
| <u>Livestock Enterprises</u> | Davis & Smith | 1928 | _____ |
| <u>Modern Farming</u> | Roberts, Angerer, Moses, & Gregory | 1950 | _____ |
| <u>Sheep Production</u> | Horlacker | 1937 | _____ |
| <u>Sheep Production</u> | Diggins & Bundy | 1958 | _____ |
| <u>Approved Practices in Sheep Production</u> | Juergenson | 1953 | _____ |
| <u>Sheep Science</u> | Kammlade & Kammlade | 1955 | _____ |
| <u>Sheep Husbandry</u> | Ensminger | 1955 | _____ |
| <u>The Sheep Book</u> | McKinney | 1959 | _____ |
| <u>Profitable Sheep</u> | Collins | 1956 | _____ |
| <u>Others (list)</u> | | | _____ |
| VII. Farm Management | | | |
| <u>Farm Business Management</u> | Robertson & Woods | 1951 | _____ |
| <u>Elements of Farm Management</u> | Hopkins | 1947 | _____ |
| <u>Elements of Farm Management</u> | Hopkins & Murray | 1953 | _____ |
| <u>Farm Management and Marketing</u> | Overton & Robertson | 1937 | _____ |
| <u>Farm Management in the South</u> | Hunt | 1942 | _____ |
| <u>Records For Farm Management</u> | Hopkins | 1958 | _____ |
| <u>Profitable Farm Management</u> | Hamilton | 1956 | _____ |
| <u>Managing the Farm Business</u> | Beneke | 1955 | _____ |
| <u>The Marketing of Livestock and Meat</u> | Fowler | 1957 | _____ |
| <u>Farm Management</u> | Robertson | 1958 | _____ |
| <u>Approved Practices in Farm Management</u> | Hall & Mortenson | 1961 | _____ |
| <u>Starting and Managing a Farm</u> | Hampson | 1948 | _____ |
| <u>Farm Records and Accounting</u> | Hopkins & Heady | 1955 | _____ |
| <u>Others (list)</u> | | | _____ |

| | | | Number of Copies |
|--------------------------------------------------------------|---------------------------------------|------|---------------------|
| VIII. Soils | | | |
| <u>Productive Soils</u> | Weir | 1946 | _____ |
| <u>Using and Managing Soils</u> | Gustafson | 1948 | _____ |
| <u>Soil Science</u> | Weir | 1949 | _____ |
| <u>Elements of Soil Conservation</u> | Bennett | 1947 | _____ |
| <u>Our Soils and Their Management</u> | Donahue | 1955 | _____ |
| <u>Soils: Use and Improvement</u> | Stallings | 1957 | _____ |
| <u>Managing Southern Soils</u> | Vanderford | 1957 | _____ |
| <u>Soils and Soil Fertility</u> | Thompson | 1952 | _____ |
| <u>Conserving Soil</u> | Butler | 1955 | _____ |
| <u>Farm Soils</u> | Worthen & Aldrich | 1956 | _____ |
| <u>Hunger Signs in Crops</u> | Bear | 1949 | _____ |
| <u>Nature and Properties of Soils</u> | Buckman & Brady | 1960 | _____ |
| <u>Land Judging</u> | Roberts | 1955 | _____ |
| <u>Soil Plant Relationships</u> | Black | 1957 | _____ |
| <u>Others (list)</u> | | | _____ |
| IX. Field Crops | | | |
| <u>Southern Field Crop Management</u> | Fergus, Hammond, Rogers | 1949 | _____ |
| <u>Southern Field Crop Enterprise</u> | Davis | 1936 | _____ |
| <u>Crop Production</u> | Hughes & Henson | 1930 | _____ |
| <u>Production of Field Crops</u> | Hulchenson, Wolf, & Kipps | 1948 | _____ |
| <u>Field Crops</u> | Fergus | 1958 | _____ |
| <u>Crop Production: Principles and Practices</u> | Ahlgren | 1959 | _____ |
| <u>Crop Production in the South</u> | Klingman | 1957 | _____ |
| <u>Southern Crops</u> | Chapman & Thomas | 1947 | _____ |
| <u>Judging Crop Quality</u> | Dungan & Bolin | 1950 | _____ |
| <u>Production of Field Crops</u> | Wolfe & Kipps | 1959 | _____ |
| <u>Farm Crops: Judging, Identi- fication and Grading</u> | Staten & Jones | 1951 | _____ |
| <u>Growing Field Crops</u> | Dungan & Ross | 1957 | _____ |
| <u>Fertilizers and Crop Production</u> | Van Slyke | 1932 | _____ |
| <u>Others (list)</u> | | | _____ |
| X. Pastures | | | |
| <u>The Pasture Book</u> | Thompson | 1952 | _____ |
| <u>The Range and Pasture Book</u> | Donahue | 1956 | _____ |
| <u>Pastures for the South</u> | King | 1959 | _____ |
| <u>Growing Pasture in the South</u> | Combs | 1936 | _____ |
| <u>Pasture of the South</u> | King | 1950 | _____ |
| <u>Pasture Production & Management</u> | Lush | 1952 | _____ |
| <u>Forage and Pasture Crops</u> | Wheeler | 1950 | _____ |
| <u>Forages</u> | Hughes, Heath, Metcalfe | 1961 | _____ |
| <u>Grassland Farming</u> | Serviss & Ahlgren | 1955 | _____ |
| <u>Pastures</u> | Lancaster, James, Bailey, & Harris | 1949 | _____ |
| <u>Approved Practices in Forage and Feed Production</u> | McVickar | 1956 | _____ |
| <u>Others (list)</u> | | | _____ |

| | | | Number of Copies |
|---------------------------------------------------------------|--------------------------------|------|---------------------|
| XI. Horticulture | | | |
| <u>Practical Horticulture</u> | Shoemaker | 1955 | _____ |
| <u>Raising Vegetables</u> | Ware | 1959 | _____ |
| <u>Vegetable Production and Marketing</u> | Work | 1945 | _____ |
| <u>Fruit Science</u> | Childers | 1949 | _____ |
| <u>Southern Horticulture</u> | Stuckey | 1944 | _____ |
| <u>Floriculture</u> | Laurie & Ries | 1950 | _____ |
| <u>General Horticulture</u> | Shoemaker | 1952 | _____ |
| <u>Commercial Flower Forcing</u> | Laurie, Kiplinger, & Nelson | 1958 | _____ |
| <u>How to Landscape Your Grounds</u> | Johnson | 1950 | _____ |
| <u>The Lawn Book</u> | Schery | 1961 | _____ |
| <u>Principles of Horticulture</u> | Denisen | 1958 | _____ |
| <u>Plant Propagation</u> | Mahlstede & Haber | 1957 | _____ |
| <u>Greenhouses--Their Construction and Equipment</u> | Wright | 1946 | _____ |
| <u>Approved Practices in Beautifying the Home Grounds</u> | Hoover | 1959 | _____ |
| <u>Plant Propagation--Principles and Practices</u> | Hartmann & Kester | 1959 | _____ |
| Others (list) | | | _____ |
| XII. Farm Mechanics | | | |
| <u>Shopwork On The Farm</u> | Jones | 1955 | _____ |
| <u>Farmers Shop Book</u> | Roehl | 1936 | _____ |
| <u>Hand Woodworking</u> | Hunt | 1952 | _____ |
| <u>General Shop for Everyone</u> | Newkirk | 1959 | _____ |
| <u>Modern Farm Shop</u> | Ross | 1954 | _____ |
| <u>Farm Mechanics Text & Handbook</u> | Cook | 1959 | _____ |
| <u>Modern Farm Buildings</u> | Ashby | 1959 | _____ |
| <u>Farm Tractor Maintenance</u> | Brown | 1958 | _____ |
| <u>Farm Welding</u> | Parker | 1958 | _____ |
| <u>Farm Electrification</u> | Brown | 1956 | _____ |
| <u>Electrical Work</u> | Nowak | 1949 | _____ |
| <u>Farm Electricity</u> | Kitts & Nabben | 1960 | _____ |
| <u>Concrete Construction</u> | Siegele | 1955 | _____ |
| <u>General Shop Handbook</u> | Willoughby | 1958 | _____ |
| Others (list) | | | _____ |
| XIII. Agricultural Occupations | | | |
| <u>Careers in Agriculture Business and Industry</u> | Stone | 1965 | _____ |
| <u>Cooperative Occupational Education</u> | Mason & Haines | 1965 | _____ |
| <u>Handbook of Agriculture Occu- pations</u> | Hover | 1962 | _____ |
| <u>Introduction to Agriculture Business and Industry</u> | Wayant, Hoover, & McClay | 1965 | _____ |
| Others (list) | | | _____ |

THANK YOU FOR YOUR COOPERATION

APPENDIX D

STATE ADOPTED BOOKS FOR VOCATIONAL AGRICULTURE

Title - Author - Publisher

FARM MANAGEMENT

- Records for Farm Management, 1958 Copr., Hopkins, et al -
Prentice-Hall, Inc.
- Profitable Farm Management, 1956 Copr., Hamilton, et al -
Prentice-Hall, Inc.
- Managing the Farm Business, 1955 Copr., Beneke - John Wiley
and Sons.
- The Marketing of Livestock and Meat, 1957 Copr., Fowler -
The Interstate Printers and Publishers.
- Farm Management, 1958 Copr., Robertson - J. B. Lippincott Co.

SOILS MANAGEMENT

- Soils: Use and Improvement, 1957 Copr., Stallings - Prentice-
Hall, Inc.
- Managing Southern Soils, 1957 Copr., Vanderford - John Wiley
and Sons.
- Our Soils and Their Management, 1955 Copr., Donahue - The
Interstate Printers and Publishers.

ANIMAL NUTRITION

- Sheep Production, 1958 Copr., Diggins, et al - Prentice-Hall,
Inc.
- Dairy Production, 1955 Copr., Diggins, et al - Prentice-Hall,
Inc.
- Feeds and Feeding, Abridged, 1958 Copr., Morrison - The Inter-
state Printers and Publishers.

CROPS AND PASTURES

- The Range and Pasture Book, 1956 Copr., Donahye, et al -
Prentice-Hall, Inc.
- Crop Production: Principles and Practices, 2nd Ed., 1959 Copr.,
Ahlgren, et al - Prentice-Hall, Inc.
- Crop Production in the South, 1957 Copr., Klingman - John Wiley
and Sons.
- Pastures For the South, 1959 Copr., King - The Interstate
Printers and Publishers.
- Field Crops (Including Southern Field Crops), 1958 Copr., Fergus,
et al - J. B. Lippincott Co.

STATE ADOPTED BOOKS FOR VOCATIONAL AGRICULTURE CONTINUED

FRUITS AND VEGETABLES

- Practical Horticulture, 1955 Copr., Shoemaker, et al - John Wiley and Sons.
Raising Vegetables, 1959 Copr., Ware, et al - The Interstate Printers and Publishers.

FARM SHOP WORK

- General Shop for Everyone, Rev., 1959 Copr., Newkirk - D. C. Heath and Co.
Modern Farm Shop, Book 1, 1954 Copr., Ross, et al - The Steck Co.
Modern Farm Buildings, 1959 Copr., Ashby, et al - Prentice-Hall, Inc.
Farm Mechanics Text and Handbook, 1959 Copr., Cook, et al - The Interstate Printers and Publishers.
Farm Tractor Maintenance, 1958 Copr., Brown, et al - The Interstate Printers and Publishers.

SELECTION, CARE AND MANAGEMENT OF LIVESTOCK AND POULTRY

- Beef Production, 1956 Copr., Diggins - Prentice-Hall, Inc.
Livestock and Poultry Production, 1954 Copr., Bundy - Prentice-Hall, Inc.
Profitable Poultry Production, 1957 Copr., Parnell - John Wiley and Sons.
The Stockman's Handbook, 1959 Copr., Ensminger - The Interstate Printers and Publishers.
Swine Management, 1957 Copr., Anderson - J. B. Lippincott Co.

APPENDIX E

A STANDARD LIST OF BOOKS THAT THE VOCATIONAL
AGRICULTURE SUPERVISORS FEEL SHOULD BE IN
EVERY DEPARTMENT IN OKLAHOMA

- I. General Feeding
- | | | | |
|--------------------------------------------------|-----------|------|--|
| <u>Feeds and Feeding</u> | Morrison | 1958 | |
| <u>The Stockman's Handbook</u> | Ensminger | 1959 | |
| <u>Approved Practice in Feeds and Feeding</u> | Cassard | 1956 | |
| <u>Mineral Nutrition and The Balance of Life</u> | Gilbert | 1957 | |
- II. Dairy
- | | | | |
|-------------------------------------------|--------------------|------|--|
| <u>Dairy Production</u> | Diggins and Bundy | 1955 | |
| <u>Dairy Cattle and Milk Production</u> | Eckles and Anthony | 1956 | |
| <u>Successful Dairying</u> | Knot | 1954 | |
| <u>Developing A Profitable Dairy Herd</u> | More and Gildow | 1953 | |
- III. Beef
- | | | | |
|------------------------------------------------|----------------------------|------|--|
| <u>Beef Cattle Science</u> | Ensminger | 1960 | |
| <u>Beef Production</u> | Diggins and Bundy | 1956 | |
| <u>Selecting, Fitting, Showing Beef Cattle</u> | Nordby and Lattig | 1956 | |
| <u>Approved Practices in Beef Production</u> | Jurgenson and Mortenson | 1958 | |
- IV. Swine
- | | | | |
|------------------------------------------|-------------------|------|--|
| <u>Swine Science</u> | Ensminger | 1961 | |
| <u>Swine Management</u> | Anderson | 1957 | |
| <u>Selecting, Fitting, Showing Swine</u> | Nordby and Lattig | 1956 | |
- V. Poultry
- | | | | |
|---------------------------------------|------------------------------|------|--|
| <u>Standard of Perfection</u> | American Poultry Association | 1948 | |
| <u>Poultry Production</u> | Card | 1961 | |
| <u>Your Future in Poultry Farming</u> | Goodman and Tudor | 1960 | |
| <u>Poultry Production</u> | Diggins and Bundy | 1960 | |
- VI. Sheep
- | | | | |
|-------------------------|-----------------------|------|--|
| <u>Sheep</u> | Horlacker and Hammond | 1950 | |
| <u>Sheep Production</u> | Diggins and Bundy | 1958 | |
| <u>The Sheep Book</u> | McKinney | 1959 | |
- VII. Farm Management
- | | | | |
|----------------------------------------------|--------------------|------|--|
| <u>Records For Farm Management</u> | Hopkins | 1958 | |
| <u>Profitable Farm Management</u> | Hamilton | 1956 | |
| <u>Approved Practices In Farm Management</u> | Hall and Mortenson | 1961 | |
- VIII. Soils
- | | | | |
|---------------------------------------|-----------|------|--|
| <u>Our Soils and Their Management</u> | Donahue | 1955 | |
| <u>Soils: Use and Improvement</u> | Stallings | 1957 | |
| <u>Soils and Soil Fertility</u> | Thompson | 1952 | |
| <u>Soil Plant Relationships</u> | Black | 1957 | |

- IX. Field Crops
- | | | |
|--------------------------------------------------|-----------------|------|
| <u>Crop Production: Principles and Practices</u> | Ahlgren | 1959 |
| <u>Production of Field Crops</u> | Wolfe and Kipps | 1959 |
| <u>Growing Field Crops</u> | Dungan and Ross | 1957 |
- X. Pastures
- | | | |
|-------------------------------|-----------------------------|------|
| <u>The Pasture Book</u> | Thompson | 1952 |
| <u>Pastures For The South</u> | King | 1959 |
| <u>Forages</u> | Hughes, Heath, and Metcalfe | 1961 |
| <u>Grassland Farming</u> | Serviss and Ahlgren | 1955 |
- XI. Horticulture
- | | | |
|-----------------------------------------------------------|---------------------|------|
| <u>Practical Horticulture</u> | Shoemaker | 1955 |
| <u>Floriculture</u> | Laurie and Ries | 1950 |
| <u>The Lawn Book</u> | Schery | 1961 |
| <u>Principles of Horticulture</u> | Denisen | 1958 |
| <u>Plant Propagation</u> | Mahlstede and Haber | 1957 |
| <u>Approved Practices In Beautifying the Home Grounds</u> | Hoover | 1959 |
- XII. Farm Mechanics
- | | | |
|-----------------------------------------|------------------|------|
| <u>Shopwork On The Farm</u> | Jones | 1955 |
| <u>General Shop For Everyone</u> | Newkirk | 1959 |
| <u>Farm Mechanics Text and Handbook</u> | Cook | 1959 |
| <u>Farm Tractor Maintenance</u> | Brown | 1958 |
| <u>Farm Welding</u> | Parker | 1958 |
| <u>Farm Electricity</u> | Kitts and Nabben | 1960 |
| <u>Concrete Construction</u> | Siegele | 1955 |
| <u>General Shop Handbook</u> | Willoughby | 1958 |
- XIII. Agricultural Occupations
- | | | |
|----------------------------------------------------------|----------------------------|------|
| <u>Careers In Agriculture Business and Industry</u> | Stone | 1965 |
| <u>Cooperative Occupational Education</u> | Mason and Haines | 1965 |
| <u>Handbook of Agriculture Occupations</u> | Hover | 1962 |
| <u>Introduction to Agriculture Business and Industry</u> | Wayant, Hoover, and McClay | 1965 |

APPENDIX F

THE METHOD OF SCORING THE QUALITY OF
BOOKS IN THE CENTERS

| Age | State Adopted List | District Supervisors List | Combined List |
|-----------|--------------------------|---------------------------------|------------------|
| 1960-up | 3 | 6 | 9 |
| 1955-59 | 2 | 5 | 8 |
| 1954-down | 1 | 4 | 7 |

APPENDIX G

STUDENT-TEACHER TRAINING CENTERS RESPONDING TO THE QUESTIONNAIRE

| Post Office | Zip Code | Name of School | Name of Teacher |
|-------------|----------|----------------------|----------------------------------|
| Adair | 74330 | Adair, S.D. 2 | James I. Boston |
| Altus | 73521 | Altus S.D. 18 | W. Kent Metcalf |
| Beaver | 73932 | Beaver S.D. 22 | James H. Simpson |
| Custer City | 73639 | Custer City S.D. 1 | Verlin Hart |
| Duncan | 73533 | Duncan S.D. 1 | Jack E. Stone |
| Erick | 73645 | Erick S.D. 51 | Ronald Reeder |
| Howe | 74940 | Howe S.D. 67 | Ross Stivers |
| Lindsay | 73052 | Lindsay S.D. 9 | Royce Foley |
| Marlow | 73055 | Marlow S.D. 3 | Ernest Muncrief |
| Muskogee | 74401 | Central High S.D. 20 | Gene Beach and Wendell Fenton |
| Owasso | 74055 | Owasso S.D. 11 | Charles Boyd |
| Ponca City | 74601 | Ponca City S.D. 71 | Eugene DeWitt |
| Pond Creek | 73766 | Pond Creek S.D. 90 | Keith Hoar |
| Ramona | 74061 | Ramona S.D. 16 | William Cavin |
| Roosevelt | 73564 | Roosevelt S.D. 7 | Dale Bynum |
| Sayre | 73662 | Sayre S.D. 31 | Henry Heise |
| Shattuck | 73858 | Shattuck S.D. 42 | Willard Bradley |
| Stuart | 74570 | Stuart S.D. 54 | Harvey Clagg |
| Washington | 73093 | Washington S.D. 5 | Clyde Ward |
| Watonga | 73772 | Watonga S.D. 42 | Joe Legako |

APPENDIX H

NON-STUDENT-TEACHING CENTERS RESPONDING TO THE QUESTIONNAIRE

| Post Office | Zip Code | Name of School | Name of Teacher |
|----------------|----------|-----------------------|------------------|
| Arapaho | 73620 | Arapaho S.D. 5 | Garland Howell |
| Bokoshe | 74930 | Bokoshe S.D. 26 | Clay Collins |
| Buffalo | 73834 | Buffalo S.D. 4 | Jesse L. Waits |
| Coyle | 73027 | Coyle S.D. 4 | Bennie Barnes |
| Eldorado | 73537 | Eldorado S.D. 25 | C. G. McMinder |
| Elgin | 73538 | Elgin S.D. 16 | John D. Jones |
| Haworth | 74740 | Haworth S.D. 6 | Haskell G. Pate |
| Hennessey | 73742 | Hennessey S.D. 16 | Clifton Baker |
| Hooker | 73945 | Hooker S.D. 23 | Jimmy Getz |
| Lenapah | 74042 | Lenapah S.D. 1 | Bill R. Kimbrell |
| Locust Grove | 74352 | Locust Grove S.D. 17 | W. A. Hesser |
| Okeene | 73763 | Okeene S.D. 9 | W. D. Sumner |
| Ringling | 73456 | Ringling S.D. 14 | Raymond E. Smith |
| Sterling | 73567 | Sterling S.D. 3 | Curtis Jeffreys |
| Talihina Rt. 2 | 74571 | Buffalo Valley S.D. 3 | LeRoy Curtis |
| Temple | 73568 | Temple S.D. 101 | Douglas Morris |
| Vian | 74962 | Vian S.D. 2 | Ronnie Leflore |
| Wagoner | 74467 | Wagoner S.D. 19 | Rance Robinson |
| Wilson | 73463 | Wilson S.D. 43 | James C. Guess |

APPENDIX I

RANKING OF AREAS ACCORDING TO NEEDS AS REPORTED BY STUDENT-TEACHING CENTERS

| Rank | Areas | | | | | | | | | | | | | |
|------|---------|---------|-------|------|-------|---------|-------|-----------------|-------|-------------|----------|--------------|----------------|--------------------------|
| | General | Feeding | Dairy | Beef | Swine | Poultry | Sheep | Farm Management | Soils | Field Crops | Pastures | Horticulture | Farm Mechanics | Agricultural Occupations |
| 1 | 0 | 2 | 3 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 4 | 5 |
| 2 | 3 | 0 | 3 | 2 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 3 | 1 | 3 |
| 3 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 5 | 4 | 2 | 3 | 1 |
| 4 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 5 | 1 | 2 | 2 | 1 | 1 | 2 |
| 5 | 2 | 1 | 1 | 0 | 1 | 4 | 4 | 3 | 2 | 0 | 1 | 1 | 1 | 2 |
| 6 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 3 | 0 | 3 | 1 | 2 | 3 |

APPENDIX J

RANKING OF AREAS ACCORDING TO NEEDS AS REPORTED BY NON-STUDENT-TEACHING CENTERS

| Rank | <u>Areas</u> | | | | | | | | | | | | |
|------|-----------------|-------|------|-------|---------|-------|-----------------|-------|-------------|----------|--------------|----------------|--------------------------|
| | General Feeding | Dairy | Beef | Swine | Poultry | Sheep | Farm Management | Soils | Field Crops | Pastures | Horticulture | Farm Mechanics | Agricultural Occupations |
| 1 | 3 | 0 | 2 | 1 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 4 | 1 |
| 2 | 1 | 0 | 3 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 1 | 0 | 3 |
| 3 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 4 | 2 | 0 | 3 | 12 | 3 |
| 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 5 | 5 | 0 | 1 | 3 |
| 5 | 1 | 0 | 3 | 2 | 0 | 1 | 2 | 2 | 2 | 4 | 0 | 1 | 1 |
| 6 | 0 | 0 | 1 | 3 | 1 | 0 | 3 | 1 | 1 | 4 | 2 | 0 | 2 |

STATISTICAL TABLE EXPLAINING THE METHOD OF DETERMINING
THE SIGNIFICANCE IN QUANTITY OF BOOKS IN TABLE XIX

| Number of Responses | $\sum X$ | \bar{X} | $\sum X^2$ |
|---------------------|----------|-----------|------------|
| 20 | 4018 | 207.6 | 1,012,344 |
| 19 | 2628 | 137.5 | 453,714 |

$$t = \frac{70.1}{\sqrt{\frac{205128}{(20)(19)} + \frac{90221}{(19)(18)}}} = 2.56$$

Degrees of Freedom = 19

(t) value for 19 degrees freedom at .02 level = 2.53

VITA

Jimmie Ray Kibby

Candidate for the Degree of

Master of Science

Thesis: A STUDY OF THE AVAILABILITY OF REFERENCE MATERIALS IN OKLAHOMA
STUDENT-TEACHING CENTERS AND NON-STUDENT-TEACHING CENTERS

Major Field: Agricultural Education

Biographical:

Personal Data: Born at Holdenville, Oklahoma, March 1, 1943,
the son of Roy and Dorthy Kibby.

Education: Attended grade school at Diamond grade school in
Holdenville, Oklahoma; graduated from Holdenville High School
in 1961; received the Bachelor of Science degree from Okla-
homa State University, with a major in Agricultural Education
in May, 1965; completing requirements for the Master of
Science degree in May, 1966.

Member of Alpha Tau Alpha; Oklahoma State Collegiate Future Farmers
of America and Free Will Baptist Church, Stillwater, Oklahoma.