

A SURVEY OF INSTRUCTIONAL MEDIA UTILIZED, FOR  
VOCATIONAL AGRICULTURE AND FFA CONTEST INSTRUCTION IN KANSAS

by

LES D. STREIT

B.S., Kansas State University, 1970

292

1226-5600

---

A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY

Manhattan, Kansas

1973

Approved by:

  
Major Professor

LD  
2668  
T4  
1973  
S867  
C.2  
Doc.

#### ACKNOWLEDGEMENT

The helpful guidance and suggestions given by Dr. Fred A. Teague, Committee Chairman, Curriculum and Instruction; Dr. J. Harvey Littrell, Curriculum and Instruction; and Dr. James Albracht, Adult and Occupational Education, for their assistance in the planning and preparation of this thesis were greatly appreciated.

Appreciation is also expressed to the author's wife, Irva Kay, for her encouragement and assistance, especially for typing the thesis, and to the vocational agriculture instructors who assisted in supplying data for this study.

## TABLE OF CONTENTS

| CHAPTER   | PAGE |
|---|------|
| I. INTRODUCTION.....  | 1    |
| Statement of the Problem.....   | 3    |
| Objectives of the Study.....  | 3    |
| Definition of Terms.....  | 4    |
| Importance of the Study.....  | 4    |
| Limitations of the Study.....   | 5    |
| Assumptions.....  | 5    |
| II. RELATED INFORMATION.....  | 6    |
| Utilizing Instructional Media in Education.....                             | 6    |
| Competencies for Utilizing Instructional Media.....                         | 11   |
| Vocational Agriculture and FFA Contests.....                                | 12   |
| Instructional Materials for Vocational Agriculture and<br>FFA Contests..... | 13   |
| III. METHODS AND PROCEDURES.....  | 24   |
| The Questionnaire.....  | 24   |
| Analysis of the Data.....   | 26   |
| IV. ANALYSIS OF RESULTS.....  | 27   |
| Participation in Contests.....  | 27   |
| Educational Value of Contests.....  | 29   |
| Instructional Materials Available.....                                      | 33   |
| Importance of Instructional Media.....                                      | 37   |

| CHAPTER   | PAGE |
|---|------|
| Utilization of Instructional Media.....                       | 42   |
| Availability and Competency to Use Audiovisual Equipment..... | 46   |
| Money Budgeted or Spent on Instructional Materials.....       | 46   |
| V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....              | 51   |
| Summary.....  | 51   |
| Conclusions.....  | 54   |
| Recommendations.....  | 55   |
| SELECTED BIBLIOGRAPHY.....                                    | 56   |
| APPENDIX.....   | 59   |
| (A) Letter of Transmittal.....                                | 60   |
| (B) Follow-up Letter.....                                     | 61   |
| (C) Questionnaire.....  | 62   |
| (D) Addresses for Instructional Materials.....                | 65   |



## LIST OF TABLES

| TABLE  | PAGE |
|--|------|
| I. Number and Percent of Participation in Kansas Vocational Agriculture and FFA Contests for 1972-73.....                              | 30   |
| II. Frequency Distribution of Responses to the Educational Value of Vocational Agriculture and FFA Contests.....                       | 31   |
| III. Percentage Distribution of Responses to the Educational Value of Vocational Agriculture and FFA Contests.....                     | 32   |
| IV. Mean Scores and Ranking of the Educational Value of Vocational Agriculture and FFA Contests.....                                   | 34   |
| V. Frequency Distribution of Responses for Instructional Materials Available for Kansas Vocational Agriculture and FFA Contests.....   | 35   |
| VI. Percentage Distribution of Responses for Instructional Materials Available for Kansas Vocational Agriculture and FFA Contests..... | 36   |
| VII. Mean Scores and Ranking of Instructional Materials Available for Vocational Agriculture and FFA Contests in Kansas.....           | 38   |
| VIII. Frequency Distribution of Responses to Importance of Instructional Media for Vocational Agriculture Instruction in Kansas.....   | 39   |

| TABLE  | PAGE |
|--|------|
| IX. Percentage Distribution of Responses to Importance<br>of Instructional Media for Vocational Agriculture<br>Instruction in Kansas.....                                      | 40   |
| X. Mean Scores and Ranking of the Importance<br>of Instructional Media in Vocational Agriculture<br>Instruction in Kansas.....   | 41   |
| XI. Frequency Distribution of Responses of the Utilization<br>of Instructional Media for Vocational Agriculture<br>Instruction in Kansas.....                                  | 43   |
| XII. Percentage Distribution of Responses for the Utilization<br>of Instructional Media for Vocational Agriculture<br>Instruction in Kansas.....                               | 44   |
| XIII. Mean Scores and Ranking of the Utilization of<br>Instructional Media for Vocational Agriculture<br>Instruction in Kansas.....  | 45   |
| XIV. Frequency and Percent Distribution of Responses to<br>the Availability of Audiovisual Equipment by<br>Vocational Agriculture Instructors in Kansas.....                   | 48   |
| XV. Frequency and Percentage Distribution of Responses for<br>the Competency to Operate Items of Audiovisual Equipment<br>by Vocational Agriculture Instructors in Kansas..... | 49   |
| XVI. Distribution and Amount Budgeted per Year for<br>Instructional Materials.....   | 50   |

## LIST OF FIGURES

| FIGURE  | PAGE |
|---|------|
| 1. An Instructional System.....   | 8    |
| 2. Instructional Media Stimulus Relationships to<br>Learning Objectives.....  | 10   |
| 3. Participation in State Vocational Agriculture<br>and FFA Contests from 1966-72.....  | 12   |
| 4. Distribution and Percent of Vocational<br>Agriculture Teachers Returning Questionnaires<br>from the Seven FFA Districts..... | 28   |

## CHAPTER 1

### INTRODUCTION

The National Vocational Act of 1917 provided a program of training for persons fourteen years of age or older who were engaged or preparing to engage in production agriculture. This act enabled secondary schools to offer vocational agriculture courses by providing federal money for their establishment, supervision and teacher training. Vocational Acts of 1963 and 1968 emphasized increased national interest in vocational education and provided training for agricultural related occupations. A committee of the American Vocational Association in 1964 revised the major objectives of vocational and technical education to include a program of training to develop agricultural competencies needed by individuals engaged in or preparing to engage in agricultural occupations other than production agriculture.

The Future Farmers of America (FFA) was founded in 1928 as the organization of students enrolled in vocational agriculture courses. Its purpose was to provide additional learning experiences and activities associated with vocational agriculture interests and objectives. Backarich (1971:75) describes the FFA as a teaching resource:

"Born in depression and nurtured in adversity, no more effective teaching tool for vocational agriculture than the FFA has ever been devised, as versatile as the imagination, powerful motivation, and above all common bond among boys that have similar backgrounds, goals and challenges."

Phipps (1971:20) describes the FFA as:

"An intregal part of vocational agriculture and vocational education. The FFA may be the prime factor for the high degree of success vocational agriculture programs have enjoyed in our high schools since 1917."

The FFA provides many learning experiences for vocational agriculture students through its award programs, conventions, publications and contests. The scope of the organization ranges from the local FFA chapter and district organization to the state and national associations. With more than 9,000 local chapters and 400,000 active members the FFA accommodates many students with specialized interests in agriculture and agricultural-related occupations. (Welton: 1970)

Jacks (1971) indicated the Vocational Education Acts of 1963 and 1968 created funds to develop many instructional materials especially for agriculture. Curriculum material laboratories were established by many states to print subject references, teacher guides, filmstrips, slides, overhead transparencies and other instructional materials. Taylor (1967) states that the nation is literally rediscovering education in adapting instructional programs to meet the changing demands of society. He further states that media in vocational education has many obvious and simple uses in bringing the learner's experiences beyond the resources of the local school. Hunger (1972) reports that it is evident that most, if not all schools, do not have sufficient software or instructional materials available. He further reports that all the films, filmstrips, television programs and other media do not fill more than five percent of the total instructional hours. The traditional mix of teacher, textbook and blackboard is not sufficiently flexible or motivating to offer the wide variety of learning experiences that todays education must offer.

This report is a study concerning instructional materials utilized in contest preparation of vocational agriculture students. It will take into account that instructional materials require availability and utilization competencies. It is centered on the assumptions that instructional materials for some contests are inadequate or unavailable and that certain types of media will be preferred and most frequently used in instruction.

#### Statement of the Problem

The purpose of the report is to determine the instructional media that vocational agriculture instructors utilize to prepare students for participation in vocational agriculture and FFA contests. The study will determine the educational value of contests, availability of contest materials, what types of instructional materials are preferred, frequency of their use, audio-visual equipment available, competencies for equipment utilization and money being spent for materials.

#### Objectives of the Study

The purpose of this study is to answer these specific questions:

- (1) Which contests do vocational agriculture instructors rank high in educational value but lack adequate instructional materials for student preparation?
- (2) What types of instructional media are preferred and most frequently used?
- (3) What kinds of audio-visual equipment do vocational agriculture instructors have available and do they have the necessary competencies or skills to utilize this equipment?
- (4) How much money is being spent annually for instructional materials by vocational agriculture programs and specifically, how much is spent for contest preparation materials?

### Definition of Terms

Certain terms that have been used in this study are defined as follows:

Vocational agriculture. A systematic program of instruction in agriculture offered in public secondary schools for the improvement of agriculture and rural living under the provisions of the National Vocational Education Acts. (Phipps - 1956)

FFA. Refers to the Future Farmers of America which is a national organization of vocational agriculture students.

Vocational agriculture and FFA contests. Competitive activities sponsored by the state and district FFA associations in agriculture, agricultural mechanics, and agriculture related areas.

Instructional materials. Print and non-print materials used for educational purposes as books, films, slides, pictures, charts, real objects, etc.

Instructional media. Instructional materials and equipment that are utilized in the teaching-learning process.

Competency in use of media. The knowledge and skills needed to use equipment and instructional materials in the learning-teaching process.

### Importance of the Study

The results of this study will be particularly useful for the State FFA Contest Committee, the College of Agriculture, and Department of Agricultural Engineering at Kansas State University, the Vocational Division of the State Office of Education, and the Kansas FFA Association who all work together in sponsoring FFA contests. Besides obtaining areas that lack sufficient instructional materials the study will attempt to identify some feedback of the educational value of contests. Carpenter (1967) reports that participation in state FFA contest at Kansas State University is a significant

on-campus function for attracting students to enroll in the College of Agriculture.

The identification of instructional media preferences and equipment available in vocational agriculture departments will help public education agencies, agri-businesses, and private commercial businesses in determining what types of media vocational agriculture instructors prefer. The investigator is also interested in producing, planning, and disseminating instructional materials for vocational agriculture. Competencies for equipment utilization will help indicate the adequacy of preparation during college enrollment and the need for a summer workshop or in-service training for instructors on equipment utilization.

#### Limitations of the Study

This study is limited to a survey of instructional materials for state and district vocational agriculture and FFA contests in Kansas. The study will include the availability of materials, educational value of contests, preference and frequency of media utilization, audiovisual equipment available, competencies for its operation and money spent for materials. Only vocational agriculture instructors who are teaching students in secondary schools for the year 1972-73 in Kansas are included. The types of audiovisual equipment and instructional media are not totally inclusive and some may have been omitted.

#### Assumptions

Since the thirteen contest areas cover a broad range of subject matter and content taught in vocational agriculture programs in Kansas, the availability of instructional materials and the importance and utilization of instructional media in contest preparation will also reflect their value to the total vocational agriculture curriculum.



## CHAPTER II

### RELATED INFORMATION

In preparation for the study, a survey of literature was made to determine what studies applied to the stated problem of surveying the instructional materials for vocational agriculture and FFA contests in Kansas. The related information was classified and is discussed in these categories: (1) utilizing instructional media in education, (2) competencies for utilizing instructional media, (3) vocational agriculture and FFA contests, and (4) instructional materials for vocational agriculture and FFA contests.

#### Utilizing Instructional Materials in Education

For many centuries the main job of educators has been to disseminate or present information, then test students to see whether they remember it. It has become more apparent in recent years that learning is an active process and that teachers should be organizers and managers of learning experiences rather than just disseminators of factual information. Brown, Lewis and Harclerod (1969) indicated that teachers with the skills and knowledge to utilize instructional media can integrate them into systems for the achievement of specified objectives for the teaching-learning environment. They further stated it is important that teachers keep in mind the purposes for which instructional media are used, the characteristics and special needs of students and basis for selecting media to achieve specified objectives. They summarized their viewpoints with respect to instructional media as:

- (1) No one process, experience or material is sufficient for learning all subjects, all skills, or for developing all desirable attitudes or appreciations.
- (2) No one teacher can or should propose to use every instructional material or device invented.
- (3) The manner for using instructional media governs their effectiveness, but there is no best way for all purposes.
- (4) Systematic planning for teaching involves both familiar and relatively new procedures.

Norberg states his view on instructional technology in a book by Meirhenry (1964) as:

"The newer educational media are means which will be accepted or rejected as means to ends. People who try new tools do so to accomplish new tasks or to perform old tasks in a new and possibly better way . . . . These are not just strong and ingenious tools; they are also means that will be used to accomplish some purpose beyond their own use, implement some program. They challenged educators to take another look at their goals, both explicit and implicit, to determine whether these goals are still sound, and whether the new media will help to implement goals to change the course of the instructional program as well as the lives of the teachers and students who are involved."

Instructional materials to be used within the instructional design are determined by the requirements of objectives, content, and instructional methods. Kemp (1968) states that media are not supplementary to or in support of instruction, but are the instructional input itself. Decisions must be made of which media, in what form, and at what sequence, will most effectively enhance the learning process.

In making media decisions a systematic approach to planning instruction is extremely essential. The focus of all instructional planning is upon the students, their needs, their capabilities, and their achievement of carefully specified objectives. Planning for student learning is a step by step systematic process of which no one step is more important than the other. Illustrated in Figure 1 is an instructional system proposed by Brown, Lewis and Harclerod. (1969:25)

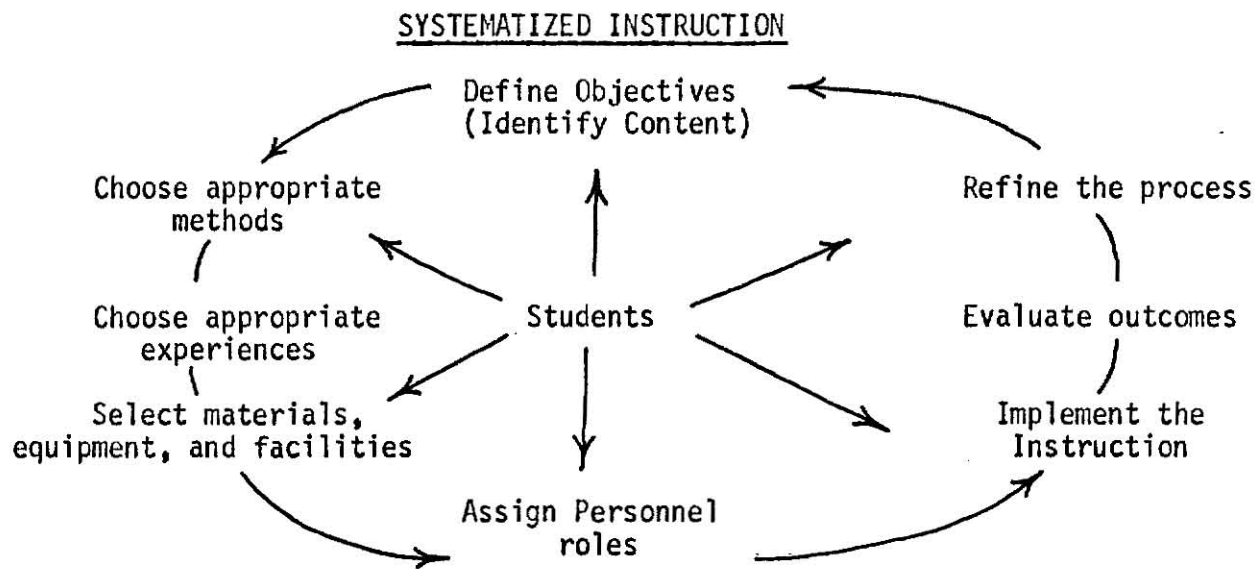


Figure 1 - Instructional System

The key to the selection of appropriate instructional media to use in any particular teaching situation is the effectiveness of that medium in accomplishing the desired educational objective. To match media with learning objectives, we should compare their relationships.

Allen (1967) classified learning objectives into these six categories:

- (1) Learning Factual Information. As names, dates, definitions, etc. all of which have concrete referents.
- (2) Learning Visual Identifications. Identifying shapes, forms, color discrimination, etc.
- (3) Learning Principles, Concepts, and Rules. Understanding relationships of events, meaning of rules, principles of functions, etc.
- (4) Learning Procedures. To carry-out a sequence of acts or operations in proper order.
- (5) Performing Skilled Perceptual - Motor Acts. Simple or complex perceptual - motor skills for performing a manipulation task.
- (6) Developing Desirable Attitudes, Opinions, and Motivations. Preference for point of view, idea, practice, action, etc.

Juergenson (1968) stated television, single-concept films, dial access retrieval, language laboratories, learning centers, computerized instruction, teaching machines, and programmed instruction was being used in schools. He also stated that many aids were simply better ways of doing things teachers already knew how to do and what teachers were already doing.

Paulitz (1969) indicated that eighty-five percent of what we know came from sight, eleven percent through hearing, and four percent via touch, taste, and smell. He also reported that *media must be planned to fit the learning situation and the proper techniques and media must be selected to fit the situation*. He summarized by saying that teachers should prepare, use and understand all forms of media while schools should be planned with an instructional media center.

Figure 2 illustrates the effectiveness of matching media with learning objectives in making media decisions.

| INSTRUCTIONAL<br>MEDIA<br>TYPE:        | LEARNING OBJECTIVES                |  |  |                             |  | Learning<br>Proce-<br>dures | Learning<br>Principles,<br>Concepts<br>and Rules | Performing<br>Skilled<br>Perceptual-<br>Motor Acts | Developing<br>Desirable<br>Attitudes,<br>Opinions &<br>Motivations |
|--|------------------------------------|--|--|-----------------------------|--|-----------------------------|--|--|--|
|  | Learning<br>Factual<br>Information | Learning<br>Visual<br>Identifi-<br>cations | Learning<br>Principles,<br>Concepts<br>and Rules | Learning<br>Proce-<br>dures | Performing<br>Skilled<br>Perceptual-<br>Motor Acts |                             |  |  |  |
| Still Pictures<br>(slides, filmstrips) | Medium                             | HIGH                                       | Medium   | Medium                      | Low  | Low                         | Low  | Low  | Low  |
| Motion Pictures<br>(16mm, 8mm)         | Medium                             | HIGH                                       | HIGH   | HIGH                        | Medium   | Medium                      | Medium   | Medium   | Medium   |
| Television                             | Medium                             | Medium                                     | HIGH   | Medium                      | Low  | Low                         | Low  | Low  | Low  |
| 3-D Objects                            | Low                                | HIGH                                       | Low  | Low                         | Low  | Low                         | Low  | Low  | Low  |
| Audio Recordings                       | Medium                             | Low  | Low  | Medium                      | Low  | Low                         | Low  | Low  | Low  |
| Programmed<br>Instruction              | Medium                             | Medium                                     | Medium   | HIGH                        | Low  | Low                         | Low  | Low  | Low  |
| Demonstration                          | Low                                | Medium                                     | Low  | HIGH                        | Medium   | Medium                      | Medium   | Medium   | Medium   |
| Printed Textbooks                      | Medium                             | Low  | Medium   | Medium                      | Low  | Low                         | Low  | Low  | Low  |
| Oral Presentation                      | Medium                             | Low  | Medium   | Medium                      | Low  | Low                         | Low  | Low  | Low  |

Figure 2 - Instructional Media Stimulus Relationships to Learning Objectives. (Allen - 1967)

In summary the utilization of instructional materials requires a systematic approach in matching the media with the desired learning objective. Instructional materials must be planned to fit the learning situation and proper techniques must be utilized.

#### Competencies for Utilizing Instructional Media

Many studies have shown that even though teachers have a high level of media competence and the equipment is available, the majority of teachers do not make extensive use of instructional media.

A study by Streeter (1969) found that at least 75% of teachers could set-up and operate audio-visual equipment, but knowledge of operational skills had a low correlation with media usage. He suggested that if classroom teachers are expected to make extensive and effective use of media a concentrated effort must be made to identify those teacher competencies that relate to frequent and effective use of media.

In a master's report by Huffman (1970) a survey of competencies for the use of media by teachers who graduated from Kansas State University in 1967-69 concluded that the operation of equipment was more generally developed than other areas of media utilization. He also concluded that the use of traditional media as slides, transparencies, films, and filmstrips was greater than newer media. Most of the basic types of equipment were available to utilize audio-visual materials.

Fulton and White (1959) stated that the knowledge of manipulation and arrangement of audio-visual equipment and materials for classroom use tends to encourage effective use of audio visual materials.

### Vocational Agriculture and FFA Contests

As an indication of interest and participation in contests, data was collected from Howard Bradley, Executive Secretary of the State Vocational Agriculture Contests. The results are illustrated in Figure 3. Data was not available for 1969. Approximately 15 - 20% of teams did not show up for the contests in agricultural sciences and about 5 - 10% of the registered teams in agricultural mechanics did not participate.

| Contest                     | Members<br>Per<br>Team | Teams Participating |      |      |      |      |      |
|-----------------------------|------------------------|---------------------|------|------|------|------|------|
|                             |                        | 1972                | 1971 | 1970 | 1968 | 1967 | 1966 |
| Animal Science & Industry   | 3                      | 68                  | 61   | 82   | 75   | 83   | 81   |
| Dairy Cattle                | 3                      | 60                  | 58   | 65   | 66   | 73   | 70   |
| Poultry                     | 3                      | 35                  | 31   | 36   | 29   | 44   | 50   |
| Horticulture                | 2                      | 29                  | 21   | 23   | 17   | 15   | 25   |
| Meats                       | 3                      | 20                  | 19   | 12   | -    | -    | -    |
| Dairy Products              | 3                      | 21                  | 19   | 18   | 14   | 14   | 16   |
| Entomology                  | 2                      | 13                  | 17   | 20   | 19   | 16   | 22   |
| Agronomy (crops)            | 3                      | 20                  | 15   | 17   | 19   | 29   | 35   |
| Agricultural News Writing   | 1                      | 34                  | 17   | 29   | 20   | 19   | 15   |
| Farm Shop Tools             | 2                      | 56                  | 37   | 41   | 46   | 39   | 44   |
| Farm Carpentry and Concrete | 2                      | 42                  | 30   | 37   | 30   | 34   | 38   |
| Soil Conservation           | 2                      | 40                  | 26   | 35   | 34   | 38   | 45   |
| Farm Power and Machinery    | 2                      | 53                  | 43   | 44   | 45   | 43   | 41   |
| Rural Electrification       | 2                      | 37                  | 35   | 34   | 33   | 41   | 43   |
| Farm Welding                | 2                      | 62                  | 46   | 49   | 53   | 47   | 47   |
| Small Engine                | 2                      | 34                  | 27   | -    | -    | -    | -    |
| Public Speaking             | 1                      |                     | 28   | 25   | 28   | 29   | 26   |

Figure 3 - State Vocational Agriculture and FFA Contests

Hemp (1961) in a study of vocational agriculture contest in Illinois stated that too many vocational agriculture programs are evaluated on contest participation. He also stated that contests in FFA are used extensively to stimulate and motivate students and that these competitive activities enhance the learning process particularly in motor skills. He further stated that contests need revision and new instructional materials to bring them in line with agriculture research findings and agricultural related occupations. Carpenter (1967) emphasized that teachers who have not participated in the state judging contests should be encouraged to consider the possible direct and indirect educational value of these competitive areas.

#### Instructional Materials for Vocational Agriculture and FFA Contests

Educators realize the benefits of tailoring instruction and instructional materials to meet specific needs of individual learners, but as true of other educational concepts it is easier to accept than to implement. Towne (1972) concludes that teachers soon recognize their limitations - limitations of resources, of available materials and of creative competencies. He further concludes that tailoring instruction to individual learners may be accomplished by utilizing instructional materials designed with the student in mind and these materials must be readily available either locally or commercially.

Bruce (1971) states that instructional materials in vocational agriculture can: (1) stimulate interest, (2) develop understanding, (3) provide individual differences, (4) increase retention and speed of learning, and (5) aid in problem solving. He listed these kinds of materials that instructors could utilize: course outlines and guides, programmed instruction, graphic materials, still pictures, films, realia, displays, multi-media kits, transparencies, and audio recordings. He said that useful materials must be



relavent and have a cooperative approach including many agencies in their development.

In a study by Drawbaugh (1971), he concluded that the preparation of instructional resources were not a top priority given by state vocational agriculture supervisors. He said that 84% of the instructional materials disseminated in the North Atlantic Region were printed materials and 16% were software as slides, transparencies, films, and audio tapes. Drawbaugh analyzed costs as not being a major factor in material demand as long as costs were not excessive. He projected needs for types of instructional materials as single concept films, overhead transparencies and demonstrations and experiments in the area of horticulture, agricultural resources, and agricultural supplies and services.

No extensive source of instructional materials specifically for use in vocational agriculture was located by the author in this study. By researching materials from public educational agencies and commercial sources, the author prepared the following list of instructional materials for vocational agriculture instruction and more specifically for vocational agriculture and FFA contest preparation. The mailing addresses for the source or company may be found in the appendix. Materials are listed by title, type and source. They are classified in the major topics of agricultural mechanics, agricultural newswriting, agronomy, animal science, dairy cattle, dairy products, entomology, horticulture, land classification, FFA leadership, meats, poultry, and FFA public speaking.

## LISTING OF INSTRUCTIONAL MATERIALS FOR CONTESTS

### Agricultural Mechanics

#### SMALL GAS ENGINES

| Title  | Type of Instructional Material | Source*                |
|--|--------------------------------|------------------------|
| Small Gas Engine Maintenance and Overhaul (6 titles) | Slides                         | Briggs and Stratton    |
| Small Gas Engines Vol. I & II                        | Booklets                       | AAVIM                  |
| Small Gas Engines                                    | Transparency Masters           | AAVIM                  |
| Better Small Gas Engine Overhaul                     | Booklet                        | DANA                   |
| Small Gas Engines                                    | Transparencies                 | DCA                    |
| General Theories of Operation                        | Book                           | Briggs and Stratton    |
| Briggs & Stratton Repair Instruction IV              | Book                           | Briggs and Stratton    |
| Small Gas Engine Service Manual                      | Book                           | Technical Publications |

#### FARM WELDING

|  |                  |                                 |
|--|------------------|---------------------------------|
| "OxyAcetylene Welding Safety & Operations" | 16mm or 8mm Film | AIMS                            |
| "Arc Welding, Safety and Operations"       | 16mm or 8mm Film | AIMS                            |
| Arc Welding                                | Transparencies   | DCA                             |
| Fundamentals of Service Welding            | Book             | John Deere Service Publications |

\*See Appendix for listing of addresses

| Title                                      | Type of Instructional Material | Source                                  |
|--|--------------------------------|---|
| The Lincoln Short Course Arc Welding       | Booklet                        | James F. Lincoln Arc Welding Foundation |
| Story of Arc Welding                       | 16mm Film                      | Bureau of Mines                         |
| Arc Welding Electrode Selection            | 16mm Film                      | Hobart Brothers Co.                     |
| Oxy-Acetylene Flame                        | 16mm Film                      | Bureau of Mines                         |
| Welding Skills & Practices by Giahino 1967 | Book                           | American Technical Society              |
| Shopwork on the Farm by Jones 1955         | Book                           | McGraw-Hill Book Co.                    |

#### FARM POWER AND MACHINERY

|   |                      |                                |
|---|----------------------|--------------------------------|
| Spark in Time on Firing Line                | 16mm Film            | Champion Spark Plug Co.        |
| The Spark of Power                          | 16mm Film            | Champion Spark Plug Co.        |
| Tractor Operation and Daily Care            | Slides<br>Booklet    | AAVIM                          |
| Tractor Maintenance Principles & Procedures | Filmstrips           | AAVIM                          |
| Tractor Maintenance                         | Booklet              | AAVIM                          |
| ABC of Diesel Engine                        | 16mm Film            | Farmland Industries Inc.       |
| Engines                                     | Slide<br>Booklet     | John Deere Service Publication |
| Grain Combines                              | Slides               | Visual Education, Inc.         |
| Engine Analysis Visuals                     | Transparency Masters | Vocational Agriculture Service |

#### RURAL ELECTRIFICATION

|                             |         |       |
|-----------------------------|---------|-------|
| Maintaining the Home Wiring | Booklet | AAVIM |
| Electrical Terms            | Booklet | AAVIM |

| Title                                   | Type of<br>Instructional<br>Material | Source                                      |
|---|--------------------------------------|---|
| Electrical Terms                        | Filmstrip                            | AAVIM                                       |
| Farm Wiring & Safety                    | Transparencies                       | Vocational Instruc-<br>tional Services      |
| Simplified Electrical<br>Wiring - 1969  | Handbook                             | Sears, Roebuck & Co.                        |
| Wiring Simplified by<br>Richter         | Book                                 | Interstate Printers &<br>Publishing Company |
| Electrical Identification<br>Kit        | Identification Kit                   | Interstate Printers &<br>Publishing Company |
| Agribusiness Electrical<br>Lesson Plans | Book                                 | Interstate Printers &<br>Publishing Company |

## FARM SHOP TOOLS

|   |                   |                                     |
|---|-------------------|-------------------------------------|
| Fundamentals of Shop<br>Tools             | Booklet<br>Slides | John Deere Service<br>Publication   |
| Stanley Tool Guide                        | Booklet           | Stanley Tool Co.                    |
| Use and Care of Twist Drills              | Booklet           | Cleveland Twist Drill<br>Company    |
| Shop Tool Study and<br>Identification Kit | Kit               | Interstate Publishers               |
| Shopwork on the Farm<br>by Jones          | Book              | McGraw-Hill Publishing<br>Company   |
| Tool Identification                       | Book              | Vocational Education<br>Productions |

## FARM CARPENTRY AND CONCRETE

|                                |         |                        |
|--------------------------------|---------|------------------------|
| Laying Concrete Blocks         | Booklet | Portland Cement Assoc. |
| Cement Masons Manual           | Booklet | Portland Cement Assoc. |
| Practical Carpentry            | Book    | Goodheart-Wilcox Co.   |
| How to Use the Steel<br>Square | Booklet | Stanley Tool Company   |

| Title   | Type of Instructional Material | Source                            |
|---|--------------------------------|-----------------------------------|
| Hardware Identification Kit                                       | Kit                            | Interstate Printers and Publisher |
| Shopwork on the Farm  | Book                           | McGraw-Hill Book Co.              |
| Laying Concrete Masonry   | Filmstrip                      | Portland Cement Assoc.            |
| Selecting Proportioning and mixing Materials for Quality Concrete | Filmstrip                      | Portland Cement Assoc.            |
| Placing, Finishing, and Curing Concrete Slabs                     | Filmstrip                      | Portland Cement Assoc.            |

#### SOIL CONSERVATION

|  |           |                                  |
|--|-----------|----------------------------------|
| Operation, Checking and Care of Level XE-R10, 1967 | Leaflet   | Cooperative Extension Service    |
| Elementary Soil and Water Engineering              | Book      | John Wiley & Sons                |
| Use of the Level: Reading The Rod                  | Filmstrip | Vocational Education Productions |
| Use of the Level: Setting up the Instrument        | Filmstrip | Vocational Education Productions |
| Recording Field Notes in Surveying                 | Filmstrip | Vocational Agriculture Service   |

#### Agricultural Newswriting

|   |      |                           |
|---|------|---------------------------|
| Agricultural Newswriting by Burnett, Powers, & Ross | Book | Wm. C. Brown Book Company |
|---|------|---------------------------|

#### Agronomy (Crops)

|  |         |   |
|--|---------|---|
| Grain Grading Exercises  | Handout | Department of Adult And Occupation Ed.            |
| Pasture and Range Plants   | Book    | Phillips Petroleum Co.                            |
| Crops Judging Samples, Seeds, Plants, Seed Analysis, Grain Grading | Samples | Wheatstate Agronomy Club, Kansas State University |

| Title   | Type of Instructional Material | Source  |
|---|--------------------------------|---|
| Crops Judging Samples and Supplies            | Samples                        | NASCO   |
| Official Grain Standards Handbook SRA-AMS-177 | Handbook                       | United States, Department of Agriculture          |
| Crop Contest-Rules and Regulations            | Handout                        | Department of Agronomy<br>Kansas State University |
| Morphology of Grasses                         | Transparencies Masters         | Vocational Education Productions                  |
| Judging Crops                                 | Seed Samples and Slides        | Scotts Visual Aids Service                        |

### Animal Science

#### BEEF CATTLE

|                                    |                            |  |
|------------------------------------|----------------------------|--|
| Judging Angus                      | Charts, Posters, Brochures | American Angus Association                   |
| Herefords                          | Charts, Posters, Brochures | American Hereford Association                |
| Judging Steers                     | Slides                     | Texas A & M                                  |
| AS & I Lab Manual                  | Book                       | Department of Animal Science and Industry    |
| Judging Shorthorn                  | Booklet, Posters           | American Junior Short-Horn Association       |
| Judging Charolair                  | Booklet, Posters           | American International Charolais Association |
| Beef Carcass Judging and Filmstrip | Filmstrip                  | Vocational Education Productions             |
| Livestock Judging Kit              | Slides                     | Vocational Education Productions             |
| Beef Visuals                       | Transparencies Masters     | Vocational Agriculture Service               |
| Judging Beef Cattle                | Slides                     | Scotts Visual Aids Services                  |

## SWINE

|  |                      |                                  |
|--|----------------------|----------------------------------|
| Profitable Pork Selection                | 16mm Film            | Modern Talking Pictures          |
| Livestock Judging Kit                    | Slides               | Vocational Education Productions |
| Swine Carcass Evaluation                 | Filmstrip            | Vocational Education Productions |
| Selecting Breeding Hogs                  | Filmstrip            | Vocational Agriculture Service   |
| Swine Visuals                            | Transparency Masters | Vocational Agriculture Service   |
| Today's Guidelines for Prok              | 16mm Film            | Venard Film Distribution Service |
| Judging Swine                            | Slides               | Scotts Visual Aids Service       |
| Appraising Market Hogs for Carcass Merit | Slides               | Ohio Curriculum Materials        |

## SHEEP

|                          |                      |                                    |
|--------------------------|----------------------|------------------------------------|
| Livestock Judging Kit    | Filmstrip            | Vocational Educational Productions |
| Selecting Breeding Sheep | Filmstrip            | Vocational Agriculture Service     |
| Sheep Visuals            | Transparency Masters | Vocational Agriculture Service     |
| Judging Sheep            | Slides               | Scotts Visual Aids Service         |

Dairy Cattle

|   |                               |   |
|---|-------------------------------|---|
| Selecting and Judging Guernseys         | 36 frame color 35mm Filmstrip | American Guernsey Cattle Club           |
| Judging Contest                         | Brochure                      | Hoards Dairyman                         |
| How to Recognize a Profitable Dairy Cow | Sound Filmstrip               | DuKane Corporation                      |
| Dairy Cattle Judging                    | Filmstrip                     | Department of Dairy and Poultry Science |

| Title  | Type of<br>Instructional<br>Material | Source  |
|--|--------------------------------------|---|
| Dairy Cow Unified Scorecard                            | Leaflet                              | Purebred Dairy<br>Cattle Association                        |
| Judging Holsteins                                      | Booklets, Charts,<br>Pictures        | Holstein-Friesian<br>Assoc. of America                      |
| <u>Dairy Products</u>                                  |                                      |   |
| Judging Dairy Products                                 | Slides                               | Department of Dairy<br>and Poultry Science                  |
| Dairy Products Judging<br>and Scorecard                | Leaflet                              | Department of Dairy<br>and Poultry Science                  |
| Judging Milk, Sediment Discs,<br>and Milker Head Units | Booklet                              | Vocational Agriculture<br>Service                           |
| <u>Entomology</u>                                      |                                      |   |
| Entomology Contest                                     | Leaflet                              | Department of Entomo-<br>logy                               |
| Insects in Kansas (X3-94)                              | Book                                 | Cooperative Extension<br>Service                            |
| Handbook of the Insect<br>World 1956                   | Book                                 | Cooperative Extension<br>Service                            |
| Field Guide to Insects<br>by Borror and White          | Book                                 | Houghton Mifflin Co.  |
| Entomology Lab Manual                                  | Book                                 | KSU Union Bookstore   |
| How to Know the Insects<br>by Jaques                   | Book                                 | Wm. C. Brown Company  |
| <u>Horticulture</u>                                    |                                      |   |
| Identification of Trees                                | Filmstrips                           | Colonial Films  |
| Ornamental Plant Identi-<br>fication                   | Slides                               | Vocational Instruc-<br>tional Services                      |
| Tree Identification                                    | Slides                               | Vocational Education<br>Productions                         |
| Horticulture Judging Contest                           | Slides                               | Department of Horti-<br>culture, Kansas<br>State University |



| Title   | Type of<br>Instructional<br>Material | Source  |
|---|--------------------------------------|---|
| <u>Land Classification</u>                                  |                                      |   |
| World at Your Feet  | 16mm Film                            | Farmland Industries                                     |
| Instruction on Land Judg-<br>ing in Kansas XMF-224          | Booklet                              | Cooperative Extension<br>Service                        |
| Land Judging  | Slides                               | Cooperative Extension<br>Service                        |
| Soil Texture Sample   | Samples                              | Wheatstate Agronomy<br>Club, Kansas State<br>University |
| <u>FFA Leadership</u>                                       |                                      |   |
| Parliamentary Procedure                                     | Filmstrips                           | Colonial Films  |
| Parliamentary Guide for FFA                                 | Book                                 | Henington Publishing<br>Company                         |
| Quiz-Basic Background of<br>the FFA                         | Handouts                             | Missouri Instructional<br>Materials                     |
| Quiz-Organization of the<br>FFA                             | Handouts                             | Missouri Instructional<br>Materials                     |
| Official FFA Manual   | Booklet                              | Future Farmers Supply<br>Service                        |
| Parliamentary Procedures                                    | Booklets                             | Vocational Agriculture<br>Service                       |
| <u>Meats</u>  |                                      |   |
| Meat Identification Service<br>Pork, Beef, Veal, Lamb, Meat | Filmstrips                           | Colonial Films  |
| Lamb Grading  | Slides                               | Vocational Instruc-<br>tional Materials                 |
| Carcass & Cuts of Meat                                      | Slides                               | Vocational Instruc-<br>tional Materials                 |
| Meat Identification Kit                                     | Kit                                  | Interstate Publishers<br>and Printers                   |

| Title  | Type of<br>Instructional<br>Material | Source                                     |
|--|--------------------------------------|--|
| Meat Cuts  | Transparency<br>Masters              | Vocational Education<br>Productions        |
| Meat Visuals   | Transparency<br>Masters              | Vocational Agriculture<br>Service          |
| Meat Identification  | Slides                               | National Livestock<br>and Meat Board       |
| National FFA Meats Contests<br>Beef, Lamb, and Pork<br>Carcasses | Slides                               | Scott Visual Aids<br>Service               |
| <u>Poultry</u>   |                                      |  |
| Poultry Grading Manual USDA<br>Agriculture Handbook #31          | Book                                 | USDA                                       |
| Egg Grading Manual USDA<br>Agriculture Handbook #75              | Book                                 | USDA                                       |
| Outline for Judging Poultry<br>Products and Poultry              | Handout                              | Department of Dairy<br>and Poultry Science |
| Grading Eggs for Quality   | Filmstrip                            | Vocational Education<br>Productions        |
| Poultry Selection and<br>Judging                                 | Filmstrip                            | Vocational Education<br>Productions        |
| Culling Poultry  | Slides                               | NASCO                                      |
| <u>FFA Public Speaking</u>                                       |                                      |  |
| Handout on Speech for<br>FFA by R. Purkey 1966                   | Book                                 | Interstate Printers<br>and Publishers      |

## CHAPTER III

### METHODS AND PROCEDURES

In order to meet the objectives set forth by this study, a questionnaire was developed to survey the availability of instructional materials for vocational agriculture and FFA contests. The questionnaire, cover letter stating the survey's importance, and a stamped return envelope was sent to 173 vocational agriculture instructors in Kansas who were employed for the 1972-73 school year. The mailing list of vocational agriculture instructors was obtained from Damon Slyter, Consultant in Agricultural Education, Division of Vocational Education, Topeka, Kansas.

#### The Questionnaire

The questionnaire contained five general sections as follows: Section One - Personal Data; Section Two - Educational Value of FFA contest and Instructional Materials Available; Section Three - Frequency of Instructional Materials Utilization and Their Relative Importance; Section Four - Audiovisual Equipment Available and Knowledge of its Usage; and Section Five - Money Budgeted or Spent on Instructional Materials per School Year.

In section one the respondent provided personal data of himself and his vocational agriculture program. He named the FFA District in which he participated, gave the total years of his teaching experience, total enrollment in his vocational agriculture courses, and total active membership of the local FFA Chapter.

Section Two of the questionnaire asked the instructor to indicate the educational value of contests by circling the appropriate response in Column A. Participation in contests was marked in Column B. In Column C the instructor was asked to indicate the availability of instructional materials for contest preparation by again circling the appropriate response. Educational value and materials available was indicated for thirteen contests including: Agricultural News Writing, Agricultural Mechanics, Crops Judging, Dairy Cattle Judging, Dairy Products Judging, Entomology, FFA Leadership School, FFA Public Speaking, Horticulture, Land Judging, Livestock Judging, Meats Judging, and Poultry Judging.

The frequency of instructional media utilization and relative importance was surveyed in Section Three. Instructional media included were: 16mm motion pictures, 8mm motion pictures (reels or film loops), filmstrips, slides, disc recordings (records), audio tape recordings, radio, video tape recordings (TV), Charts, displays, pictures, overhead transparencies, models and objects, textbooks, pamphlets, brochures, handouts, chalkboard, and programmed instruction and individualized materials. Importance of media was circled in Column A and utilization was scored in Column B.

Section Four asked the instructor to indicate by marking (X) in the corresponding blanks if the particular item of audiovisual equipment was available for their use and if they knew how to set-up and operate the items of equipment. The items of equipment listed were: filmstrip projector (automatic), filmstrip projector (manual), 8mm projector, 8mm film loop cartridge projector, 16mm sound projector, opaque projector, overhead projector, record player, slide projector (automatic), slide projector (manual, tape recorder (reel) and tape recorder (cassette).

Section Five of the questionnaire asked the respondent to indicate by marking (X) in the appropriate blank for the amount of money he spent each year for instructional materials. The amounts were in \$100.00 intervals and go up to \$1,000.00 or more. The second part of Section Five asked the specific amount or percent of money the instructor spent for materials for state and district contest instruction. An example of the questionnaire may be found in the appendix.

### Analysis of the Data

The data in Section One of personal information on FFA district participation were analyzed in a frequency distribution table comparing FFA districts with frequencies of responses. The data from Sections Two and Three was computed and ranked from mean scores of contest educational value, materials available, and importance of media. Frequency of media utilization, Column B-Section Three, was computed as a mean score for usage. The data from Section Four was computed as percentages for each item of equipment under the two columns of availability and competencies for utilization. The sums, means, and medians were also computed for Section Five. A Funstat computer package was utilized to assist in the item analysis of the questionnaire.

## CHAPTER IV

### ANALYSIS OF RESULTS

Questionnaires were mailed to all vocational agriculture instructors in Kansas. On the first mailing 106 questionnaires were returned and 48 were returned on a second mailing. Two returns were omitted in the analysis of results because they were received after initial results were being computed. A total of 152 out of a possible 173 returns were analyzed which represented a usable questionnaire return of 87.9%. Figure IV illustrates the distribution and percentage of teachers returning questionnaires in the seven Kansas Vocational Agriculture Teacher Association (KVATA) or Kansas Future Farmers of America (FFA) districts.

The number of teachers responding per district ranged from 18 to 26 and the total percent responding for each district ranged from 83% to 96% for an overall return of 152 out of 173 or 87.9%.

#### Participation in Contests

In Section Two-Column B of the questionnaire the instructor was asked to place an (X) in the appropriate blank for the contests that his students had entered or planned to compete in during the 1972-73 school year. A blank space was scored as not participating in the event. Contests ranking high in participation (50% or above) were: Agricultural Mechanics (54.6%); Dairy Cattle Judging (60.5%); FFA Leadership School (65.8%); FFA Public Speaking (53.9%); and Livestock Judging (64.5%). The contests ranking medium in participation (30% - 50%) were: Crops Judging (38.2%); Land Judging (46.7%);

FIGURE 4

Distribution and Percent of Teachers Responding in Seven FFA Districts on Questionnaires.

| Districts    | Number Teacher<br>Returning<br>Questionnaire<br><br>N <sub>1</sub> | Percentage<br>Of Teachers<br>Responding<br><br>% | Total Number<br>Of Teachers<br>In FFA District<br><br>N <sub>2</sub> | Percent of<br>Total Vo Ag<br>Teachers<br><br>% | Percent Responding<br>Of Total Teachers<br><br>% |
|--------------|--|--|--|--|--|
| Northeast    | 19   | 12.5   | 20   | 11.6   | 95   |
| Northcentral | 24   | 15.8   | 29   | 16.8   | 83   |
| Northwest    | 23   | 15.1   | 26   | 15.0   | 88   |
| Southeast    | 18   | 11.8   | 23   | 13.3   | 78   |
| Southcentral | 26   | 17.1   | 31   | 17.9   | 84   |
| Southwest    | 19   | 12.5   | 20   | 11.6   | 95   |
| Eastcentral  | 23   | 15.1   | 24   | 13.9   | 96   |
| TOTALS       | 152  | 100.0  | 173  | 100.1  | 87.9   |

Meats Judging (32.2%); and Poultry Judging (42.7%). Contest ranking low in participation (30% or less) were: Dairy Products Judging (25.6%); Entomology (25.0%); Horticulture (25.0%); and Agricultural News Writing (19.1%). Table I illustrates the number and percentage of vocational agriculture departments participating in the thirteen contest areas for Kansas in 1972-73.

### Educational Value of Contests

Section Two-Column One of the questionnaire asked instructors to indicate the educational value of the thirteen contest areas by circling the appropriate response. The value scale was converted and responses were scored on the following basis: Very valuable - 5; Valuable - 4; Somewhat Valuable - 3; Of Little Value - 2; and of No Value - 1. Table II indicates the frequency distribution of responses for the educational value of contests. Blank items were counted as none responses. The total number of responses ranged from a high of 143 on FFA Leadership School to a low of 117 on Dairy Products Judging. A high proportion of responses clustered in the value categories of somewhat valuable, valuable and very valuable.

The responses of instructors were calculated for a percentage distribution in Table III. These percentages were calculated by dividing the number of instructors returning questionnaires into the number in each value category for the thirteen contest areas. Instructors indicating no response to items ranged from 23.0% in dairy products to 5.9% in FFA Leadership on returned questionnaires. Percent responding to items on questionnaires (N=152) ranged from a high of 94.1% to a low of 77.0%. The percent responses received from all vocational agriculture instructors in Kansas (N=173) varied from 82.7% to 67.6%. The overall percentage mean of instructors that returned questionnaires and responded to items was 85.3% and a 74.9% percentage mean for responses to items on the educational value of contest from the total group.



TABLE I

Number and Percent of Participation in Kansas Vocational Agriculture and  
FFA Contests for 1972-73. N=152

| <u>Contest</u>            | <u>Participating</u> |         | <u>Non-Participating</u> |         |
|---------------------------|----------------------|---------|--------------------------|---------|
|                           | Number               | Percent | Number                   | Percent |
| Agricultural News Writing | 29                   | 19.1%   | 123                      | 80.9%   |
| Agricultural Mechanics    | 83                   | 54.6    | 69                       | 45.4    |
| Crops Judging             | 58                   | 38.2    | 94                       | 61.8    |
| Dairy Cattle              | 92                   | 60.5    | 60                       | 39.5    |
| Dairy Products Judging    | 39                   | 25.6    | 113                      | 74.3    |
| Entomology                | 38                   | 25.0    | 114                      | 75.0    |
| FFA Leadership School     | 100                  | 65.8    | 52                       | 34.2    |
| FFA Public Speaking       | 82                   | 53.9    | 70                       | 46.1    |
| Horticulture              | 38                   | 25.0    | 114                      | 75.0    |
| Land Judging              | 71                   | 46.7    | 81                       | 53.3    |
| Livestock Judging         | 98                   | 64.5    | 54                       | 35.5    |
| Meats Judging             | 49                   | 32.2    | 103                      | 67.8    |
| Poultry Judging           | 64                   | 42.1    | 88                       | 57.9    |

TABLE II

Frequency Distribution of Responses to the Educational Value of Kansas  
Vocational Agriculture and FFA Contests for 1972-73.

| Contests                  | <u>Number of Responses</u> |                  |                         |                           |               |                       | Total Number<br>Of Responses |
|---------------------------|----------------------------|------------------|-------------------------|---------------------------|---------------|-----------------------|------------------------------|
|                           | No<br>Response<br>0        | No<br>Value<br>1 | Of Little<br>Value<br>2 | Somewhat<br>Valuable<br>3 | Valuable<br>4 | Very<br>Valuable<br>5 |                              |
| Agricultural News Writing | 33                         | 2                | 16                      | 54                        | 38            | 9                     | 119                          |
| Agricultural Mechanics    | 14                         | 1                | 5                       | 11                        | 67            | 54                    | 138                          |
| Crops Judging             | 22                         | 3                | 12                      | 41                        | 51            | 23                    | 130                          |
| Dairy Cattle              | 14                         | 0                | 6                       | 30                        | 70            | 32                    | 138                          |
| Dairy Products Judging    | 35                         | 5                | 18                      | 49                        | 36            | 9                     | 117                          |
| Entomology                | 33                         | 0                | 11                      | 49                        | 47            | 12                    | 119                          |
| FFA Leadership School     | 9                          | 1                | 5                       | 20                        | 40            | 77                    | 143                          |
| FFA Public Speaking       | 19                         | 1                | 3                       | 11                        | 39            | 79                    | 133                          |
| Horticulture              | 33                         | 3                | 12                      | 53                        | 39            | 12                    | 119                          |
| Land Judging              | 71                         | 1                | 3                       | 24                        | 77            | 33                    | 138                          |
| Livestock Judging         | 11                         | 2                | 3                       | 17                        | 52            | 67                    | 141                          |
| Meats                     | 30                         | 2                | 8                       | 25                        | 52            | 35                    | 122                          |
| Poultry                   | 23                         | 8                | 24                      | 52                        | 36            | 9                     | 129                          |

TABLE III

Percentage Distribution of Responses to Educational Value of Kansas Vocational Agriculture and FFA Contests for 1972-73.

| Contests                  | <u>Response Percentages</u> |                  |                         |                           |               |                       | Percent Responding<br>On Questionnaire<br>N=152 | Percent Responding<br>From Total Group<br>N=173 |
|---------------------------|-----------------------------|------------------|-------------------------|---------------------------|---------------|-----------------------|---|---|
|                           | No<br>Response<br>0         | No<br>Value<br>1 | Of Little<br>Value<br>2 | Somewhat<br>Valuable<br>3 | Valuable<br>4 | Very<br>Valuable<br>5 |   |   |
| Agricultural News Writing | 21.7                        | 1.3              | 10.5                    | 35.5                      | 25.0          | 5.9                   | 78.3  | 68.8  |
| Agricultural Mechanics    | 9.2                         | 0.7              | 3.3                     | 7.2                       | 44.1          | 35.5                  | 90.8  | 79.8  |
| Crops Judging             | 14.5                        | 2.0              | 7.9                     | 27.0                      | 33.6          | 15.1                  | 85.5  | 75.1  |
| Dairy Cattle Judging      | 9.2                         | 0                | 3.9                     | 19.7                      | 46.1          | 21.1                  | 90.8  | 79.8  |
| Dairy Products Judging    | 23.0                        | 3.3              | 11.8                    | 32.2                      | 23.7          | 5.9                   | 77.0  | 67.6  |
| Entomology                | 21.7                        | 0                | 7.2                     | 32.2                      | 30.9          | 7.9                   | 78.3  | 68.8  |
| FFA Leadership School     | 5.9                         | 0.7              | 3.3                     | 13.2                      | 26.3          | 50.7                  | 94.1  | 82.7  |
| FFA Public Speaking       | 12.5                        | 0.7              | 2.0                     | 7.2                       | 25.7          | 52.0                  | 87.5  | 76.9  |
| Horticulture              | 21.7                        | 2.0              | 7.9                     | 34.9                      | 25.7          | 7.9                   | 78.3  | 68.8  |
| Land Judging              | 9.2                         | 0.7              | 2.0                     | 15.8                      | 50.7          | 21.7                  | 90.9  | 79.8  |
| Livestock Judging         | 7.2                         | 1.3              | 2.0                     | 11.2                      | 34.2          | 44.1                  | 92.8  | 81.5  |
| Meats Judging             | 19.7                        | 1.3              | 5.3                     | 16.4                      | 34.2          | 23.0                  | 80.3  | 70.5  |
| Poultry Judging           | 15.1                        | 5.3              | 15.8                    | 34.2                      | 23.7          | 5.9                   | 84.9  | 74.6  |

The means for the value scale were computed and listed in Table IV. The mean score for the educational value of each contest was computed by calculating a total weighted score per contest and then dividing by the total number responding on the questionnaire. The weighted score was figured by assigning the corresponding interval number on the scale to the value description; No Response - 0; No Value - 1; Of Little Value - 2; Somewhat Valuable - 3; Valuable - 4; and Very Valuable - 5 points. The contests were then ranked from high to low. Contests receiving a mean score of 4.00 or better were: FFA Public Speaking (4.44); FFA Leadership School (4.31); Livestock Judging (4.27); Agricultural Mechanics (4.22); and Land Judging (4.00). These five contest were rated valuable to very valuable in educational value. All other contests received a 3.11 rating or better which ranged from somewhat valuable to valuable.

#### Instructional Materials Available

In Section Two-Column C of the questionnaire the instructors were requested to indicate the availability of instructional materials they needed to prepare and train students for the contests and schools. The converted selection scale ranged from: No Response - 0; None Required - 1; None Available - 2; Very Few Available - 3; Some Available - 4; and Many Available - 5. Table V gives a frequency distribution of responses in the contest categories. Table VI converts the frequency distribution into a percentage distribution of responses. No responses on returned questionnaires ranged from 7.2% on FFA Leadership School to 21.7% on Dairy Products Judging. The percentage of teachers returning questionnaires and responding to items varied from a high of 92.8% to a low of 78.3%. The percent per item from the total group ranged from 81.5% to 68.8%.

TABLE IV

Mean Scores and Ranking of the Educational Value of Vocational Agriculture and FFA Contests in Kansas for 1972-73.

| Contests                  | <u>Educational Value*</u> |                      |      |            |
|---------------------------|---------------------------|----------------------|------|------------|
|                           | Number Of Responses       | Total Weighted Score | Rank | Mean Score |
|                           | N                         | TWS                  | R    | M          |
| FFA Public Speaking       | 133                       | 591                  | 1    | 4.44       |
| FFA Leadership School     | 143                       | 616                  | 2    | 4.31       |
| Livestock Judging         | 141                       | 602                  | 3    | 4.27       |
| Agricultural Mechanics    | 138                       | 582                  | 4    | 4.22       |
| Land Judging              | 138                       | 552                  | 5    | 4.00       |
| Dairy Cattle Judging      | 138                       | 542                  | 6    | 3.92       |
| Meats Judging             | 122                       | 466                  | 7    | 3.82       |
| Crops Judging             | 130                       | 469                  | 8    | 3.61       |
| Entomology                | 119                       | 417                  | 9    | 3.50       |
| Horticulture              | 119                       | 402                  | 10   | 3.38       |
| Agricultural News Writing | 119                       | 393                  | 11   | 3.30       |
| Dairy Products Judging    | 117                       | 377                  | 12   | 3.22       |
| Poultry Judging           | 129                       | 401                  | 13   | 3.11       |

\*Educational Value of Contests

5=Very Valuable

4=Valuable

3=Somewhat Valuable

2=Of Little Value

1=No Value

TABLE V

Frequency Distribution of Responses for Instructional Materials Available for Kansas Vocational Agriculture and FFA Contests in 1972-73.

| Contests                  | <u>Number of Responses</u> |                       |                        |                            |                        |                        | Total Number<br>of Responses |
|---------------------------|----------------------------|-----------------------|------------------------|----------------------------|------------------------|------------------------|------------------------------|
|                           | No<br>Response<br>0        | None<br>Required<br>1 | None<br>Available<br>2 | Very Few<br>Available<br>3 | Some<br>Available<br>4 | Many<br>Available<br>5 |                              |
| Agricultural News Writing | 32                         | 6                     | 26                     | 59                         | 28                     | 1                      | 120                          |
| Agricultural Mechanics    | 15                         | 0                     | 2                      | 21                         | 58                     | 56                     | 137                          |
| Crops Judging             | 23                         | 0                     | 11                     | 31                         | 64                     | 23                     | 129                          |
| Dairy Cattle Judging      | 13                         | 1                     | 3                      | 21                         | 72                     | 42                     | 139                          |
| Dairy Products Judging    | 33                         | 1                     | 29                     | 52                         | 30                     | 7                      | 119                          |
| Entomology                | 32                         | 2                     | 18                     | 47                         | 44                     | 9                      | 120                          |
| FFA Leadership School     | 11                         | 4                     | 4                      | 14                         | 64                     | 55                     | 141                          |
| FFA Public Speaking       | 20                         | 8                     | 7                      | 30                         | 61                     | 26                     | 132                          |
| Horticulture              | 31                         | 2                     | 25                     | 51                         | 30                     | 13                     | 121                          |
| Land Judging              | 14                         | 0                     | 4                      | 27                         | 67                     | 40                     | 138                          |
| Livestock Judging         | 14                         | 0                     | 0                      | 11                         | 73                     | 54                     | 138                          |
| Meats Judging             | 30                         | 2                     | 11                     | 39                         | 46                     | 24                     | 122                          |
| Poultry Judging           | 22                         | 4                     | 12                     | 42                         | 56                     | 16                     | 130                          |

TABLE VI

Percentage Distribution of Responses for Instructional Materials Available  
for Kansas Vocational Agriculture and FFA Contests in 1972-73

| Contests                  | <u>Percentage Distribution</u> |                       |                        |                            |                        |                        | Percent<br>Responding on<br>Questionnaire<br>N=152 | Percent<br>Responding<br>From Total<br>Group<br>N=173 |
|---------------------------|--------------------------------|-----------------------|------------------------|----------------------------|------------------------|------------------------|--|---|
|                           | No<br>Response<br>0            | None<br>Required<br>1 | None<br>Available<br>2 | Very Few<br>Available<br>3 | Some<br>Available<br>4 | Many<br>Available<br>5 |  |   |
| Agricultural News Writing | 21.1                           | 3.9                   | 17.1                   | 38.8                       | 18.4                   | 0.7                    | 78.9   | 69.4  |
| Agricultural Mechanics    | 9.7                            | 0                     | 1.3                    | 13.8                       | 38.2                   | 36.8                   | 90.3   | 79.2  |
| Crops Judging             | 15.1                           | 0                     | 7.2                    | 20.4                       | 42.1                   | 15.1                   | 84.9   | 74.6  |
| Dairy Cattle Judging      | 8.6                            | 0.7                   | 2.0                    | 13.8                       | 47.4                   | 27.6                   | 91.4   | 80.3  |
| Dairy Products Judging    | 21.7                           | 0.7                   | 19.1                   | 34.2                       | 19.7                   | 4.6                    | 78.3   | 68.8  |
| Entomology                | 21.1                           | 1.3                   | 11.8                   | 30.9                       | 28.9                   | 5.9                    | 78.9   | 69.4  |
| FFA Leadership School     | 7.2                            | 2.6                   | 2.6                    | 9.2                        | 42.1                   | 36.2                   | 92.8   | 81.5  |
| FFA Public Speaking       | 13.6                           | 5.3                   | 4.6                    | 19.7                       | 40.1                   | 17.1                   | 86.8   | 76.3  |
| Horticulture              | 20.4                           | 1.3                   | 16.4                   | 33.6                       | 19.7                   | 8.6                    | 79.6   | 69.9  |
| Land Judging              | 9.2                            | 0                     | 2.6                    | 17.8                       | 44.1                   | 26.3                   | 90.8   | 79.8  |
| Livestock Judging         | 9.2                            | 0                     | 0                      | 7.2                        | 48.0                   | 35.5                   | 90.8   | 79.8  |
| Meats Judging             | 19.7                           | 1.3                   | 7.2                    | 25.7                       | 30.3                   | 15.8                   | 80.3   | 70.5  |
| Poultry Judging           | 14.5                           | 2.6                   | 7.9                    | 27.6                       | 36.8                   | 10.5                   | 85.5   | 75.1  |

Table VII illustrates the means scores and ranking of instructional materials available for contests. The mean score was computed by dividing the total weighted score, number of responses per items times the value scale, by the total number of responses. Contests which had a mean score of 4.00 or above, some to many available were: Livestock Judging (4.31); Agricultural Mechanics (4.28); FFA Leadership School (4.24); Dairy Cattle Judging (4.11); and Land Judging (4.04). Contest which had mean scores from 3.00 - 4.00, very few to some available were: FFA Public Speaking; Crops Judging; Meats; Poultry Judging; Entomology; Horticulture; Dairy Products; and Agricultural News Writing.

#### Importance of Instructional Materials

Section Three-Column A of the questionnaire asked vocational agriculture instructors to indicate the relative importance of instructional media in vocational agriculture teaching by circling a response on the scale listing: Essential (5); Very Important (4); Important (3); Little Importance (2); and No Importance (1). Fifteen types of instructional media or materials were listed. Table VIII shows the frequency distribution of responses. Table IX illustrates the percentage distribution of these responses.

The data in Table X gives the mean scores and ranking of the fifteen types of instructional media and materials. Instructional media and materials ranking high in importance in vocational agriculture instruction, essential (5.00) to very important (4.00), were: chalkboard (4.28); pamphlets, brochures and handouts (4.41); charts, displays and pictures (4.21); textbooks (4.15); and overhead transparencies (4.06). Mean scores in the important (3.00) to very important (4.00) category were: model and objects (3.87); slides (3.75); filmstrips (3.61); 16mm film (3.43); and programmed and individualized instructional materials (3.40). The mean scores on media and materials of little



TABLE VII

Mean Scores and Ranking of Instructional Materials Available for Vocational Agriculture and FFA Contests in Kansas for 1972-73.

| <u>Instructional Materials Available*</u> |                        |                            |          |            |
|---|------------------------|----------------------------|----------|------------|
|   | Number of<br>Responses | Total<br>Weighted<br>Score | Rank     | Mean Score |
| <u>Contests</u>                           | <u>N</u>               | <u>TWS</u>                 | <u>R</u> | <u>M</u>   |
| Livestock Judging                         | 138                    | 595                        | 1        | 4.31       |
| Agricultural Mechanics                    | 137                    | 587                        | 2        | 4.28       |
| FFA Leadership School                     | 137                    | 581                        | 3        | 4.24       |
| Dairy Cattle Judging                      | 138                    | 567                        | 4        | 4.11       |
| Land Judging                              | 138                    | 557                        | 5        | 4.04       |
| FFA Public Speaking                       | 124                    | 478                        | 6        | 3.85       |
| Crops Judging                             | 129                    | 486                        | 7        | 3.77       |
| Meats Judging                             | 120                    | 443                        | 8        | 3.69       |
| Poultry Judging                           | 126                    | 454                        | 9        | 3.60       |
| Entomology                                | 118                    | 406                        | 10       | 3.44       |
| Horticulture                              | 119                    | 388                        | 11       | 3.26       |
| Dairy Products Judging                    | 118                    | 369                        | 12       | 3.13       |
| Agricultural News Writing                 | 114                    | 346                        | 13       | 3.04       |

\*Instructional Materials Available

5=Many Available

4=Some Available

3=Very Few Available

2=None Available

1=None required

TABLE VIII

Frequency Distribution of Responses to Importance of Instructional Media  
for Vocational Agriculture Instruction in Kansas

| Instructional Media                                  | <u>Number of Responses</u> |                  |                      |           |                   |           | Total Number<br>Of Responses |
|--|----------------------------|------------------|----------------------|-----------|-------------------|-----------|------------------------------|
|  | No<br>Response             | No<br>Importance | Little<br>Importance | Important | Very<br>Important | Essential |                              |
|  | 0                          | 1                | 2                    | 3         | 4                 | 5         | N                            |
| 16mm Motion Pictures                                 | 3                          | 4                | 12                   | 67        | 48                | 18        | 149                          |
| 8mm Motion Pictures                                  | 24                         | 42               | 31                   | 43        | 10                | 2         | 128                          |
| Filmstrips   | 5                          | 4                | 10                   | 52        | 55                | 26        | 147                          |
| Slides   | 6                          | 1                | 8                    | 48        | 59                | 30        | 146                          |
| Disc Recordings (Records)                            | 17                         | 39               | 56                   | 33        | 6                 | 1         | 135                          |
| Audio Tape Recordings                                | 13                         | 18               | 40                   | 52        | 22                | 7         | 139                          |
| Radio  | 15                         | 51               | 44                   | 28        | 10                | 4         | 137                          |
| Videotape Recordings (TV)                            | 19                         | 40               | 38                   | 33        | 18                | 4         | 133                          |
| Charts, Displays, & Pictures                         | 3                          | 0                | 4                    | 24        | 58                | 63        | 149                          |
| Overhead Transparencies                              | 6                          | 3                | 7                    | 32        | 40                | 64        | 146                          |
| Models and Objects                                   | 10                         | 3                | 7                    | 37        | 53                | 42        | 142                          |
| Textbooks  | 3                          | 1                | 8                    | 28        | 43                | 69        | 149                          |
| Pamphlets, Brochures &<br>Handouts                   | 3                          | 1                | 2                    | 18        | 60                | 68        | 149                          |
| Chalkboard   | 3                          | 2                | 2                    | 9         | 31                | 105       | 149                          |
| Programmed Instruction &<br>Individualized Materials | 11                         | 10               | 18                   | 45        | 42                | 26        | 141                          |

TABLE IX

Percentage Distribution of Responses to Importance of Instructional Media  
for Vocational Agriculture Instruction In Kansas.

| Instructional Media                                  | <u>Percentage Distribution</u> |                       |                           |                |                        |                | Percent Responding<br>On Questionnaire<br>N=152 | Percent Responding<br>From Total Group<br>N=173 |
|--|--------------------------------|-----------------------|---------------------------|----------------|------------------------|----------------|---|---|
|  | No<br>Response<br>0            | No<br>Importance<br>1 | Little<br>Importance<br>2 | Important<br>3 | Very<br>Important<br>4 | Essential<br>5 |   |   |
| 16mm Motion Pictures                                 | 2.0                            | 2.7                   | 7.9                       | 44.1           | 31.6                   | 11.8           | 98.0  | 86.1  |
| 8mm Motion Pictures                                  | 15.8                           | 27.6                  | 20.4                      | 28.3           | 6.6                    | 1.3            | 84.2  | 74.0  |
| Filmstrips   | 3.3                            | 2.7                   | 6.6                       | 34.2           | 36.2                   | 17.1           | 96.7  | 85.0  |
| Slides   | 3.9                            | 0.7                   | 5.3                       | 31.6           | 38.8                   | 19.7           | 96.1  | 84.4  |
| Disc Recordings                                      | 11.2                           | 25.7                  | 36.8                      | 21.7           | 3.9                    | 0.7            | 88.8  | 78.0  |
| Audio Tape Recordings                                | 8.6                            | 11.8                  | 26.3                      | 34.2           | 14.5                   | 4.6            | 91.4  | 80.3  |
| Radio  | 9.9                            | 33.6                  | 28.9                      | 18.4           | 6.6                    | 2.6            | 90.1  | 79.2  |
| Videotape Recordings                                 | 12.5                           | 26.3                  | 25.0                      | 21.7           | 11.8                   | 2.6            | 87.5  | 76.8  |
| Charts, Displays, &<br>Pictures                      | 2.0                            | 0                     | 2.7                       | 15.8           | 38.2                   | 41.4           | 98.0  | 86.1  |
| Overhead Transparency                                | 3.9                            | 2.0                   | 4.6                       | 21.1           | 26.3                   | 42.1           | 96.1  | 84.4  |
| Models & Objects                                     | 6.6                            | 2.0                   | 4.6                       | 24.3           | 34.9                   | 27.6           | 93.4  | 82.1  |
| Textbooks  | 2.0                            | 0.7                   | 5.3                       | 18.4           | 28.3                   | 45.4           | 98.0  | 86.1  |
| Pamphlets, Brochures &<br>Handouts                   | 2.0                            | 0.7                   | 1.3                       | 11.8           | 39.5                   | 44.7           | 98.0  | 86.1  |
| Chalkboard   | 2.0                            | 1.3                   | 1.3                       | 5.9            | 20.4                   | 69.1           | 98.0  | 86.1  |
| Programmed Instruction &<br>Individualized Materials | 7.2                            | 6.6                   | 11.8                      | 29.6           | 27.6                   | 17.1           | 92.8  | 81.5  |

TABLE X

Mean Scores and Ranking of the Importance of Instructional Media in  
Vocational Agriculture

| <u>Importance of Instructional Media*</u>            |                            |      |               |
|--|----------------------------|------|---------------|
| Instructional Media                                  | Total<br>Weighted<br>Score | Rank | Mean<br>Score |
|  | TWS                        | R    | M             |
| Chalkboard   | 682                        | 1    | 4.58          |
| Pamphlets, Brochures and Handouts                    | 657                        | 2    | 4.41          |
| Charts, Displays, & Pictures                         | 627                        | 3    | 4.21          |
| Textbooks  | 618                        | 4    | 4.15          |
| Overhead Transparencies                              | 593                        | 5    | 4.06          |
| Models & Objects                                     | 550                        | 6    | 3.87          |
| Slides   | 547                        | 7    | 3.75          |
| Filmstrips   | 530                        | 8    | 3.61          |
| 16mm Motion Pictures                                 | 511                        | 9    | 3.43          |
| Programmed Instruction & Individualized<br>Materials | 479                        | 10   | 3.40          |
| Audio Tape Recordings                                | 377                        | 11   | 2.71          |
| Video Tape Recordings                                | 303                        | 12   | 2.28          |
| 8mm Motion Pictures                                  | 283                        | 13   | 2.20          |
| Disc Recordings                                      | 279                        | 14   | 2.07          |
| Radio  | 283                        | 14   | 2.07          |

\*Importance of Instructional Media

5=Essential

4=Very Important

3=Important

2=Little Importance

1=No Importance

importance (2.00) to important (3.00) category were: audio tapes (2.71); video tapes (2.28); 8mm films (2.20); and records and radio (2.07).

#### Utilizational of Instructional Materials and Media

In Section Three-Column B of the questionnaire teachers were asked how often they utilized materials and media in their vocational agriculture courses. The converted response categories were: daily (5); weekly (4); monthly (3); yearly (2); and never (1). Table XI gives the frequency distribution of responses.

Table XII shows the percentage distribution of responses and the percentage responding per item on those returning questionnaires and from the total group. Those responding to items on the returned questionnaires ranged from 88.8% to 97.4%. The percent return from the total group on individual items varied from 78.0% to 85.5%.

The mean scores and ranking of the utilization of media and materials in vocational agricultural courses is shown in Table XIII. Materials rating the highest usage, daily (5.00) to weekly (4.00), were: chalkboard (4.80); pamphlets, brochures and handouts (4.25); textbooks (4.37); and charts, displays, and pictures (4.12). Materials with a mean score on usage from monthly (3.00) to weekly (4.00) were: models and objects (3.48); overhead transparencies (3.91); filmstrips (3.20); slides (3.13); 16mm films (3.06); and programmed instruction and individualized materials (3.03). The mean score for audio tapes (2.08) was in the yearly category. Materials with mean scores in the yearly (2.00) to never (1.00) listing were: video tapes (1.48); 8mm film (1.60); records (1.65); and radio (1.71).

TABLE XI

Frequency Distribution of Responses to Utilization of Instructional Media  
for Vocational Agriculture Instruction in Kansas

| Instructional Media                                  | <u>Number of Responses</u> |       |        |         |        |       | Total Number<br>Of Responses |
|--|----------------------------|-------|--------|---------|--------|-------|------------------------------|
|  | No<br>Response             | Never | Yearly | Monthly | Weekly | Daily |                              |
|  | 0                          | 1     | 2      | 3       | 4      | 5     | N                            |
| 16mm Motion Pictures                                 | 5                          | 3     | 17     | 94      | 33     | 0     | 147                          |
| 8mm Motion Pictures                                  | 17                         | 87    | 18     | 27      | 3      | 0     | 135                          |
| Filmstrips   | 7                          | 2     | 19     | 73      | 50     | 1     | 145                          |
| Slides   | 5                          | 6     | 18     | 74      | 48     | 1     | 147                          |
| Disc Recordings (Records)                            | 11                         | 75    | 41     | 24      | 1      | 0     | 141                          |
| Audio Tape Recordings                                | 10                         | 47    | 48     | 35      | 12     | 0     | 142                          |
| Radio  | 11                         | 86    | 29     | 10      | 12     | 4     | 141                          |
| Videotape Recordings (TV)                            | 14                         | 87    | 37     | 12      | 2      | 0     | 138                          |
| Charts, Displays, & Pictures                         | 3                          | 0     | 5      | 23      | 70     | 51    | 149                          |
| Overhead Transparencies                              | 5                          | 5     | 8      | 31      | 53     | 50    | 147                          |
| Models and Objects                                   | 10                         | 10    | 13     | 39      | 52     | 28    | 142                          |
| Textbooks  | 4                          | 2     | 4      | 11      | 54     | 77    | 148                          |
| Pamphlets, Brochures &<br>Handouts                   | 4                          | 1     | 3      | 13      | 72     | 59    | 148                          |
| Chalkboard   | 4                          | 2     | 0      | 3       | 15     | 128   | 148                          |
| Programmed Instruction &<br>Individualized Materials | 13                         | 26    | 23     | 33      | 34     | 23    | 139                          |

TABLE XII

Percentage Distribution of Responses to Instructional Media Utilization  
for Vocational Agriculture Instruction in Kansas.

| Instructional Media                                  | <u>Percentage Distribution</u> |            |             |              |             |            | Percent Responding<br>On Questionnaire<br>N=152 | Percent Responding<br>From Total Group<br>N=173 |
|--|--------------------------------|------------|-------------|--------------|-------------|------------|---|---|
|  | No<br>Response<br>0            | Never<br>1 | Yearly<br>2 | Monthly<br>3 | Weekly<br>4 | Daily<br>5 |   |   |
| 16mm Motion Pictures                                 | 3.3                            | 2.0        | 11.2        | 61.8         | 21.7        | 0          | 96.7  | 85.0  |
| 8mm Motion Pictures                                  | 11.2                           | 57.2       | 11.8        | 17.8         | 2.0         | 0          | 88.8  | 78.0  |
| Filmstrips   | 4.6                            | 1.3        | 12.5        | 48.0         | 32.9        | 0.7        | 95.4  | 83.8  |
| Slides   | 3.3                            | 3.9        | 11.8        | 48.7         | 31.6        | 0.7        | 96.7  | 85.0  |
| Disc Recordings                                      | 7.2                            | 49.3       | 27.0        | 15.8         | 0.7         | 0          | 92.8  | 81.5  |
| Audio Tape Recordings                                | 6.6                            | 30.9       | 31.6        | 23.0         | 7.9         | 0          | 93.4  | 82.1  |
| Radio  | 7.2                            | 56.7       | 19.1        | 6.6          | 7.9         | 2.6        | 92.8  | 81.5  |
| Videotape Recordings                                 | 9.2                            | 57.2       | 24.3        | 7.9          | 1.3         | 0          | 90.9  | 79.8  |
| Charts, Displays, &<br>Pictures                      | 2.0                            | 0          | 3.3         | 15.1         | 46.1        | 33.6       | 98.0  | 86.1  |
| Overhead Transparency                                | 3.3                            | 3.3        | 5.3         | 20.4         | 34.9        | 32.9       | 96.7  | 85.0  |
| Models & Objects                                     | 6.6                            | 6.6        | 8.6         | 25.7         | 34.2        | 18.4       | 93.4  | 82.1  |
| Textbooks  | 2.6                            | 1.3        | 2.6         | 7.2          | 35.5        | 50.7       | 97.4  | 85.5  |
| Pamphlets, Brochures<br>& Handouts                   | 2.6                            | 0.7        | 2.0         | 8.6          | 47.4        | 38.8       | 97.4  | 85.5  |
| Chalkboard   | 2.6                            | 1.3        | 0           | 2.0          | 9.9         | 84.2       | 97.4  | 85.5  |
| Programmed Instruction &<br>Individualized Materials | 8.6                            | 17.1       | 15.1        | 21.7         | 22.4        | 15.1       | 91.4  | 80.3  |

TABLE XIII

Mean Scores and Ranking of the Utilization of Instructional Media in  
Vocational Agriculture

| <u>Utilization of Instructional Media*</u>           |                            |      |               |
|--|----------------------------|------|---------------|
| Instructional Media                                  | Total<br>Weighted<br>Score | Rank | Mean<br>Score |
|  | TWS                        | R    | M             |
| Chalkboard   | 711                        | 1    | 4.80          |
| Textbooks  | 648                        | 2    | 4.37          |
| Pamphlets, Brochures and Handouts                    | 629                        | 3    | 4.25          |
| Charts, Displays, & Pictures                         | 614                        | 4    | 4.12          |
| Overhead Transparencies                              | 576                        | 5    | 3.91          |
| Models & Objects                                     | 495                        | 6    | 3.48          |
| Filmstrips   | 464                        | 7    | 3.20          |
| Slides   | 461                        | 8    | 3.13          |
| 16mm Motion Pictures                                 | 451                        | 9    | 3.06          |
| Programmed Instruction & Individualized<br>Materials | 422                        | 10   | 3.03          |
| Audio Tape Recordings                                | 296                        | 11   | 2.08          |
| Radio  | 242                        | 12   | 1.71          |
| Disc Recordings                                      | 233                        | 13   | 1.65          |
| 8mm Motion Pictures                                  | 216                        | 14   | 1.60          |
| Video Tape Recordings                                | 205                        | 15   | 1.48          |

\*Utilization of Instructional Media

- 5=Daily
- 4=Weekly
- 3=Monthly
- 2=Yearly
- 1=Never



### Availability and Competency to Use Audiovisual Equipment

Section Four of the questionnaire asked instructors to check if the thirteen items of audiovisual equipment are available for usage and if they knew how to set-up and operate the equipment. Table XIV shows the number and percentage of instructors having audiovisual equipment available to use. The overhead projector ranked the highest at 96.7%. The manual filmstrip projector and 16mm motion picture projector ranked next at 94.7%. Eighty-nine percent of the instructors indicated they had a manual slide projector available for usage. Video tape equipment was available to 52.6% and only 30 - 32% had 8mm equipment available to utilize. Tape recorders, either reel or cassette, were available to 65 - 75% of the instructors.

Table XV shows the frequency and percentage distribution of responses for the competency to set-up and operate the thirteen items of audiovisual equipment. Over 95% of the vocational agriculture instructors could operate a manual filmstrip projector, 16mm sound project and an overhead projector. Eighty-nine and one-half percent could operate manual slide projector and 84.9% a record player. Those rating lowest on skills required to operate were 8mm equipment, and the videotape recorder.

### Money Budgeted or Spent on Instructional Materials

Vocational agriculture instructors were asked to indicate on Section Five in the questionnaire the amount of money that was budgeted or being spent on all instructional materials used for teaching and also specifically what amount or percent was spent on instructional materials used for vocational agriculture and FFA contest preparation. The eleven budget categories for money budgeted or spent on all instructional materials ranged in \$100.00 units from 0 - \$100.00 to over \$1,000.00. Table XVI shows the distribution of

responses. The median budget category was \$200.00 - \$300.00 with the mean at \$320.00. The average amount spent for contest materials was \$61.00 or 19% of the total budget for instructional materials.

TABLE XIV

Frequency and Percent Distribution of Responses to the Availability of  
Audiovisual Equipment for Vocational Agriculture Instruction in Kansas

| Audiovisual Equipment          | <u>Available for Use</u> |                      |                  |                          |
|--------------------------------|--------------------------|----------------------|------------------|--------------------------|
|                                | N=152                    |                      |                  |                          |
|                                | Have<br>Available        | Percent<br>Available | Not<br>Available | Percent Not<br>Available |
|                                | Yes                      | %                    | No               | %                        |
| Filmstrip Projector (Automatic | 91                       | 59.9                 | 61               | 40.1                     |
| Filmstrip Projector (Manual)   | 144                      | 94.7                 | 8                | 5.3                      |
| 8mm Projector                  | 48                       | 31.6                 | 104              | 68.4                     |
| 8mm Film loop                  | 46                       | 30.3                 | 106              | 69.7                     |
| 16mm Sound Projector           | 144                      | 94.7                 | 8                | 5.3                      |
| Opaque Projector               | 89                       | 58.6                 | 63               | 41.4                     |
| Overhead Projector             | 147                      | 96.7                 | 5                | 3.3                      |
| Record Player                  | 121                      | 79.6                 | 31               | 21.4                     |
| Slide Projector (Automatic)    | 100                      | 65.8                 | 52               | 34.2                     |
| Slide Projector (Manual)       | 136                      | 89.5                 | 16               | 10.5                     |
| Tape Recorder (Reel)           | 115                      | 75.7                 | 37               | 24.3                     |
| Tape Recorder (Cassette)       | 100                      | 65.8                 | 52               | 34.2                     |
| Videotape Recorder             | 80                       | 52.6                 | 72               | 47.4                     |

TABLE XV

Frequency and Percentage Distribution of Responses for the Competency to Operate Items of Audiovisual Equipment by Vocational Agriculture Instructors in Kansas.

| Audiovisual Equipment           | <u>Know How To Operate</u> |                           |                   |                              |
|---------------------------------|----------------------------|---------------------------|-------------------|------------------------------|
|                                 | N=152                      |                           |                   |                              |
|                                 | Can<br>Operate             | Percent<br>Can<br>Operate | Cannot<br>Operate | Percent<br>Cannot<br>Operate |
|                                 | Yes                        | %                         | No                | %                            |
| Filmstrip Projector (Automatic) | 109                        | 71.7                      | 43                | 28.3                         |
| Filmstrip Projector (Manual)    | 146                        | 96.1                      | 6                 | 3.9                          |
| 8mm Projector                   | 68                         | 44.7                      | 84                | 55.3                         |
| 8mm Film loop                   | 62                         | 40.8                      | 90                | 59.2                         |
| 16mm Sound Projector            | 146                        | 96.1                      | 6                 | 3.9                          |
| Opaque Projector                | 103                        | 67.8                      | 49                | 32.2                         |
| Overhead Projector              | 148                        | 97.4                      | 4                 | 2.6                          |
| Record Player                   | 129                        | 84.9                      | 23                | 15.1                         |
| Slide Projector (Automatic)     | 115                        | 75.7                      | 37                | 24.3                         |
| Slide Projector (Manual)        | 136                        | 89.5                      | 16                | 10.5                         |
| Tape Recorder (Reel)            | 121                        | 79.6                      | 31                | 21.4                         |
| Tape Recorder (Cassette)        | 107                        | 70.4                      | 45                | 29.6                         |
| Videotape Recorder              | 60                         | 39.5                      | 92                | 60.5                         |

TABLE XVI

Distribution and Amount Budgeted Per Year for Instructional Materials

| Budget Categories | Number<br>N | Percent of<br>Total Number<br>% | Mean Total<br>Weighted<br>Amount<br>M |
|-------------------|-------------|---------------------------------|---------------------------------------|
| \$ 0 - 100        | 33          | 21.7                            | 1650                                  |
| 100 - 200         | 29          | 19.1                            | 4350                                  |
| 200 - 300         | 25          | 16.4                            | 6250                                  |
| 300 - 400         | 21          | 13.8                            | 7350                                  |
| 400 - 500         | 14          | 9.2                             | 6300                                  |
| 500 - 600         | 15          | 9.9                             | 8250                                  |
| 600 - 700         | 2           | 1.3                             | 1300                                  |
| 700 - 800         | 1           | 0.7                             | 750                                   |
| 800 - 900         | 4           | 2.6                             | 3400                                  |
| 900 -1000         | 2           | 1.3                             | 1900                                  |
| Over 1,000        | 6           | 3.9                             | 6600                                  |
| Totals            | 152         | 99.9                            | \$48,100                              |

Mean for all Instructional Materials \$320.00

Median for all Instructional Materials \$200.00 - 300.00

Mean for Contest Materials \$60.72

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The purpose of this study was to determine the instructional media and materials that vocational agriculture instructors utilize to prepare students for FFA and vocational agriculture contests. The problem was designed to measure the educational value of contests, the instructional materials available for student preparation, the importance of instructional media and materials, frequency of media usage, available audiovisual equipment, competencies for equipment utilization, and money budgeted or spent for materials. The study was based on the assumptions that instructional materials for some contests are unavailable and that certain types of media will be preferred and most frequently used in instruction. The results of the study will help to establish criteria for the planning and development of needed materials by individuals, agri-business firms, and state and university planning committees for vocational agriculture and FFA contests.

A questionnaire was developed to gather data that would assist in meeting the study's objectives. The questionnaire was divided into five sections. Section One asked personal data from the instructors on FFA District, years teaching experience, total vocational agriculture enrollment, and total FFA membership. The educational value of contests, contest participation and materials available for contest preparation were listed in Section Two. The thirteen contests listed were: Agricultural News Writing; Agricultural Mechanics; Crops Judging; Dairy Cattle Judging; Dairy Products;

Entomology; FFA Leadership School; FFA Public Speaking; Horticulture; Land Judging; Livestock Judging; Meats; and Poultry Judging. Section Three asked instructors to indicate the relative importance and utilization of thirteen types of instructional materials and media. These were: 16mm films, 8mm films; filmstrips; slides; records; audio tapes; radio; video tapes; charts, displays and pictures; overhead transparencies; models and objects; textbooks; pamphlets, brochures and handouts; chalkboard; and programmed instruction and individualized materials.

Data collected in Section Four asked teachers to indicate if various items of audiovisual equipment were available for use and if they knew how to set-up and operate the equipment. The items of audiovisual equipment listed were: filmstrip projector (manual and automatic); 8mm projector (reel and cartridge); 16mm sound projector; opaque projector; overhead projector; record player; slide projector (automatic and manual); audio tape recorder (reel and cassette); and a video tape recorder.

Section Five asked for the amount of money spent or budgeted on instructional materials during the school year 1972-73. Responses were arranged into eleven categories in \$100.00 intervals from 0 - \$100.00 to over \$1,000.00. Instructors were also requested more specifically to indicate what percent or amount of this budget was spent on contest materials.

The data was key-punched and programmed into a Funstat computer program package for item analysis. The data was recorded in tables illustrating frequency and percent distribution of responses and mean scores of the questionnaire items.

Questionnaires were returned by 152 of the 173 Kansas Vocational agriculture teachers in 1972-73 on two mailings for a percentage return of 87.9%. The range on possible returns from in seven FFA Districts in Kansas was from 84% - 96%. Indicated participation in contests ranged from highs in FFA

Leadership School (65.8%), Livestock Judging (64.5%) and Dairy Cattle Judging (60.5%) to lows in Agricultural News Writing (19.1%), Entomology (25.0%), Horticulture (25.0%) and Dairy Products Judging (25.6%).

Instructors rated FFA Public Speaking, FFA Leadership School, Livestock Judging and Agriculture Mechanics as the highest contests in educational value. Contests with the lowest mean scores on the educational value were Horticulture, Agricultural News Writing, Dairy Products and Poultry Judging.

Availability of instructional materials for contest instruction were rated highest on Livestock Judging, Agricultural Mechanics, FFA Leadership School and Dairy Cattle Judging. Contests with the fewest instructional materials available were Entomology, Horticulture, Dairy Products and Agricultural News Writing. The FFA Public Speaking Contest received the highest ranking on educational value but ranked sixth on the availability of instructional materials. All other contest were very similiar in ranking on educational value and instructional materials available with the exception of Poultry Judging. It received the lowest mean score on educational value but ranked ninth on materials available for instruction.

Instructors indicated that: the chalkboard; pamphlets, brochures and handouts; charts, displays, and pictures; textbooks; and overhead transparencies were rated highest in importance and most frequently utilized, weekly (4.00) to daily (5.00). Video tape, 8mm films, records, and radio were rated lowest in importance and utilized the least, never (1.00) to yearly (2.00).

Over 90% of the instructors said they could operate and had available the filmstrip projector, 16mm projector and the overhead projector. Only 52.9% had video tape equipment and 31% had 8mm equipment available for usage. Approximately 40% indicated they could operate 8mm or video tape equipment. The other items audio visual equipment were available and could be operated by approximately 60% or more of the instructors.



Money spent or budgeted for all instructional materials in vocational agriculture averaged \$320.00 per instructor with the median in the category of \$200.00 to \$300.00 per year. Money spent or budgeted ranged from \$0.00 to over \$1,000.00 per year. The average amount spent for contest materials was \$60.00 or 19% of the total budget for materials.

### Conclusions

As a result of the finding of this study on the survey of instructional media utilized in vocational agriculture and FFA contest instruction by vocational agriculture instructors in Kansas, the following conclusions were made:

(1) Most vocational agriculture and FFA contests were perceived as being valuable instructional activities. Those rated most valuable were FFA Public Speaking, FFA Leadership School, Livestock Judging and Agricultural Mechanics. Ranking least valuable were Horticulture, Agricultural News Writing, Dairy Products and Poultry Judging.

(2) Contests ranking high in educational value also had more instructional materials available for contest preparation except for FFA Public Speaking.

(3) Traditional types of instructional media and materials were ranked higher in importance and used more frequently than the newer types of media. Media ranking the highest were the chalkboard, printed materials, and overhead transparencies. Video tapes, 8mm film, records and radio were valued and used the least.

(4) Contests ranking high in educational value had the highest percent of indicated participation. Those ranking low in educational value had the least participation with the exception of Poultry Judging.

(5) Most vocational agriculture instructors had the availability to use and competency to operate traditional items of audiovisual equipment.

(6) Vocational agriculture instructors were spending approximately \$320.00 per school year on instructional materials and 19% of the amount is being spent specifically on contest materials.

### Recommendations

The following recommendations are made on the basis of the findings and conclusions of the study:

(1) A cooperative effort by vocational agriculture instructors, agribusinesses, teacher-educators, subject-matter experts, state supervisors and vocational agriculture students needs to be initiated to develop materials specifically designed for Kansas programs.

(2) Continued emphasis on in-service training of teachers on the use of newer media and production of instructional materials.

(3) An agency or organization be created by the State Department of Education or Kansas State University to coordinate and assist in the development of instructional materials in vocational agriculture.

(4) Kansas State University sponsors and contest committee members continually update and revise materials to distribute to vocational agriculture instructors.

(5) Initiate production of materials that lack availability, especially in FFA Public Speaking, in the form of highly visualized print materials, overhead transparencies, slides and filmstrips.

(6) Conduct studies to determine the differences in instructional techniques of teachers from departments that place well in contests to those that do not place well or participate.

## SELECTED BIBLIOGRAPHY

## BIBLIOGRAPHY

## A. BOOKS

Brown, James W., Richard B. Lewis, and Fred F. Harclerod. AV Instruction: Media and Methods. Third Edition. McGraw-Hill Book Company, 1967, pp. 16-35.

Kemp, Jerold E. Planning and Producing Audiovisual Materials. Chandler Publishing Company, 1968, pp. 3-14.

Meierhenry, Wesley C. Media and Educational Innovation. University of Nebraska Press, Lincoln, Nebraska, 1964, pp. 368-369.

## B. PERIODICALS

Allen, William. "Media Stimulus and Types of Learning," Audiovisual Instruction, 12:25, January, 1967.

Backarich, Page. "The FFA as a Teaching Resource," The Agricultural Education Magazine, 44:75, September 1971.

Bruce, Herbert. "Instructional Materials for Teachers of Vocational Agriculture", The Agricultural Education Magazine, 44:61, September, 1971.

Drawbaugh, Charles C. "Instructional Resources in Agricultural Education", The Agricultural Education Magazine, 44:64-66, September, 1971.

Fulton, William R. and Frederick A. White. "What Constitutes Teacher Competence in Audiovisual Communication?", Phi Delta Kappan, 40:159, January, 1959.

Hemp, Paul E. "Improving Contests and Award Programs in Vocational Agriculture", American Vocational Journal, 36:9-10, December, 1961.

Hunger, Charles H. "Locally Produced Instructional Materials and the Classroom Teacher", Audiovisual Instruction, 17:81, March, 1972.

Jacks, Lloyd. "Instructional Materials", The Agricultural Education Magazine, 44:55, September, 1971.

Juergenson, E. M. "Instructional Materials and the Teacher," The Agricultural Education Magazine, May, 1968, pp. 243.

**THIS BOOK WAS  
BOUND WITHOUT  
PAGES NUMBERED  
58 & 59.**

**THIS IS AS  
RECEIVED FROM  
CUSTOMER.**

## APPENDIX



January 13, 1973

Department of Curriculum and Instruction  
College of Education  
Holton Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5550

Dear Vocational Agriculture Instructor,

A study is being conducted to determine the educational value and the adequacy of instructional materials for student participation in vocational agriculture and FFA contests in Kansas. The study will also attempt to identify preferences for various types of instructional materials, the availability of audiovisual equipment, equipment usage, and money being spent for instructional materials by vocational agriculture programs in Kansas. The results of the study will help to establish criteria for the planning and development of needed instructional materials. Please mark your response on the enclosed questionnaire.

I am particularly interested in obtaining your responses because your experiences and opinions will contribute significantly to this study. All returns will remain anonymous and no attempt will be made to identify individuals with published results.

It will be appreciated if you will complete the questionnaire prior to Friday, January 26 and return it in the enclosed self-addressed stamped envelope. Any comments concerning the questionnaire or aspects of the study are welcomed. If desired, I would be pleased to send you a summary of the study upon completion.

Thank you for your cooperation.

Sincerely yours,

Les D. Streit



Department of Curriculum and Instruction  
College of Education  
Holton Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5550

February 2, 1973

Dear Vocational Agriculture Instructor,

Recently you received a questionnaire asking for your opinions of the educational value and instructional materials available for state and district FFA and Vocational Agriculture Contests. Your responses are extremely important. The results of the study will help to establish criteria for the planning and development of needed instructional materials. Enclosed is a second questionnaire form in case the first has been misplaced.

Please complete the questionnaire prior to Friday, February 9 and return it in the enclosed self-addressed stamped envelope. Any comments concerning the questionnaire or aspects of the study are welcomed. If desired, I would be pleased to send you a summary of the study upon completion.

Thank you for your cooperation.

Sincerely yours,

Les D. Streit



# **ILLEGIBLE DOCUMENT**

**THE FOLLOWING  
DOCUMENT(S) IS OF  
POOR LEGIBILITY IN  
THE ORIGINAL**

**THIS IS THE BEST  
COPY AVAILABLE**

SURVEY OF INSTRUCTIONAL MATERIALS FOR STATE AND DISTRICT VOCATIONAL AGRICULTURE  
AND FFA CONTESTS IN KANSAS

SECTION 1 - Personal Data

FFA District \_\_\_\_\_ Total Enrollment in Vo. Ag. \_\_\_\_\_

Years Teaching Experience \_\_\_\_\_ Total Membership in FFA \_\_\_\_\_

SECTION 2 - Educational Value, Participation and Instructional Materials Available for Contests.

Please rank the educational value of the State and District Vo. Ag. and FFA Contests by circling the appropriate response in Column A.

Indicate the instructional materials (films, slides, samples, textbooks, references, etc.) that you have available to prepare your students for these contests. Circle your response in Column C.

Please Check in Column B the contests that your School enters.

| <u>Educational Value</u> |          |                   |                 |          | <u>Participation</u>       | <u>Materials Available</u> |                |                    |                |               |
|--------------------------|----------|-------------------|-----------------|----------|----------------------------|----------------------------|----------------|--------------------|----------------|---------------|
| Column A                 |          |                   |                 |          | Column B                   | Column C                   |                |                    |                |               |
| Very Valuable            | Valuable | Somewhat Valuable | Of Little Value | No Value |                            | Many Available             | Some Available | Very Few Available | None Available | None Required |
| 4                        | 3        | 2                 | 1               | 0        | ___ Ag. News Writing       | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Ag. Mechanics          | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Crops Judging          | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Dairy Cattle Judging   | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Dairy Products Judging | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Entomology             | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ FFA Leadership School  | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ FFA Public Speaking    | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Horticulture           | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Land Judging           | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Livestock Judging      | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Meats Judging          | 4                          | 3              | 2                  | 1              | 0             |
| 4                        | 3        | 2                 | 1               | 0        | ___ Poultry Judging        | 4                          | 3              | 2                  | 1              | 0             |

### SECTION 3 - Frequency of Instructional Materials Utilization and Their Relative Importance

Please rank the relative importance of the listed instructional materials as they relate to your teaching by circling the appropriate response in Column A.

Please circle in Column B the approximate frequency of utilization for the listed instructional materials.

| <u>Importance</u> |                |           |                   |               |   | <u>Utilization</u> |        |         |        |       |
|-------------------|----------------|-----------|-------------------|---------------|---|--------------------|--------|---------|--------|-------|
| Column A          |                |           |                   |               |   | Column B           |        |         |        |       |
| Essential         | Very Important | Important | Little Importance | No Importance | <u>INSTRUCTIONAL MATERIALS</u>                    | Never              | Yearly | Monthly | Weekly | Daily |
| 4                 | 3              | 2         | 1                 | 0             | 16 mm Motion Pictures                             | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | 8 mm Motion Pictures (reels or film loops)        | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Filmstrips  | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Slides  | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Disc Recordings (Records)                         | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Audio Tape Recordings                             | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Radio   | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Videotape Recordings (TV)                         | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Charts, Displays, & Pictures                      | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Overhead Transparencies                           | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Models and Objects                                | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Textbooks   | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Pamphlets, Brochures & Handouts                   | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Chalkboard  | 0                  | 1      | 2       | 3      | 4     |
| 4                 | 3              | 2         | 1                 | 0             | Programmed Instruction & Individualized Materials | 0                  | 1      | 2       | 3      | 4     |

SECTION 4 - Audiovisual Equipment Available and Knowledge of It's Usage

Please mark (X) in the following two rows of blanks; first if you have access to the equipment for use and secondly if you know how to set-up and operate the following items of equipment.

| <u>Audiovisual Equipment</u>       | <u>Available for Use</u> | <u>Know How To Set-Up and Operate</u> |
|------------------------------------|--------------------------|---------------------------------------|
| Filmstrip Projector (Automatic)    | _____                    | _____                                 |
| Filmstrip Projector (Manual)       | _____                    | _____                                 |
| 8 mm Projector                     | _____                    | _____                                 |
| 8 mm Film loop cartridge Projector | _____                    | _____                                 |
| 16 mm Sound Projector              | _____                    | _____                                 |
| Opaque Projector                   | _____                    | _____                                 |
| Overhead Projector                 | _____                    | _____                                 |
| Record Player                      | _____                    | _____                                 |
| Slide Projector (Automatic)        | _____                    | _____                                 |
| Slide Projector (Manual)           | _____                    | _____                                 |
| Tape Recorder (reel)               | _____                    | _____                                 |
| Tape Recorder (cassette)           | _____                    | _____                                 |
| Video tape Recorder                | _____                    | _____                                 |

SECTION 5 - Money Budgeted or Spent on Instructional Materials per School Year

Please mark (X) in the appropriate blank for the amount of money that your Department will spend for all instructional materials. Instructional materials include all items in Question 3 from audiovisual to print materials (books, slides, manuals, filmstrips, etc.).

|                        |                                |
|------------------------|--------------------------------|
| _____ \$ 0 - \$100.00  | _____ \$600 - \$ 700.00        |
| _____ \$100 - \$200.00 | _____ \$700 - \$ 800.00        |
| _____ \$200 - \$300.00 | _____ \$800 - \$ 900.00        |
| _____ \$300 - \$400.00 | _____ \$900 - \$1,000.00       |
| _____ \$400 - \$500.00 | _____ Over \$1,000.00 per year |
| _____ \$500 - \$600.00 |                                |

Approximately what percent or amount of this budget is spent for instructional materials to prepare Vo. Ag. students for district and state FFA contests and schools? \_\_\_\_\_

# ADDRESSES OF INSTRUCTIONAL MATERIALS FOR VOCATIONAL AGRICULTURE AND FFA CONTESTS

Adult & Occupational Education  
Attn: Dr. James Albracht  
Holton Hall  
Kansas State University  
Manhattan, Kansas 66506

Agronomy Department  
Attn: Dr. Ernest L. Mader  
Waters Hall  
Kansas State University  
Manhattan, Kansas 66506

Aims Instructional Media Services, Inc.  
Attn: Kean H. Wells  
P.O. Box 88013  
Indianapolis, Indiana 46208

American Angus Association  
3201 Frederick  
St. Joseph, Missouri 64501

American Association for Vocational  
Instructional Materials (AAVIM)  
Agricultural Engineering Center  
Athens, Georgia 30601

American Guernsey Cattle Club, The  
Peterborough, New Hampshire

American Hereford Association  
Public Relations Department  
Hereford Drive  
Kansas City, Missouri 64105

American International Charolais Assoc.  
923 Lincoln Liberty Life Building  
Houston, Texas 77002

American Shorthorn Association  
8288 Hascall Street  
Omaha, Nebraska 68124

American Technical Society  
848 East 58th Street  
Chicago, Illinois 60637

Animal Science & Industry Department  
Weber Hall  
Kansas State University  
Manhattan, Kansas 66506

Briggs and Stratton  
2711 North 13th Street  
Milwaukee, Wisconsin 53205

Bureau of Mines  
United States Department of Interior  
Motion Pictures  
4800 Forbes Avenue  
Pittsburg, Pennsylvania 15213

Champion Spark Plug Co.  
Film Department  
900 Upton Avenue  
Box 910  
Toledo, Ohio 43601

Cleveland Twist Drill Co., The  
P.O. Box 6656  
Cleveland, Ohio 44101

Colonial Films  
71 Walton Street N.W.  
Atlanta, Georgia

Cooperative Extension Service  
Kansas State University  
Umberger Hall  
Manhattan, Kansas 66506

Dairy and Poultry Science Department  
Attn: Dr. Charles L. Norton  
Call Hall  
Kansas State University  
Manhattan, Kansas 66506

Dairy and Poultry Science Department  
Attn: Dr. Harold A. Roberts  
Call Hall  
Kansas State University  
Manhattan, Kansas 66506

Dairy and Poultry Science Department  
Attn: Mr. Amos Kahrs  
Call Hall  
Kansas State University  
Manhattan, Kansas 66506

Dana Parts Company  
Technical Service Department  
Hagerstown Distribution Center  
P.O. Box 500  
Hagerstown, Indiana 47346

DCA Educational Products, Inc.  
4865 Stenton Avenue  
Philadelphia, Pa. 19144

DuKane Corporation  
Audio Visual Division  
St. Charles, Illinois 60174

Entomology Department  
Attn: Dr. Gregory Partida  
Waters Hall  
Kansas State University  
Manhattan, Kansas 66506

Farmland Industries, Inc.  
Education Department  
Box 7305  
Kansas City, Missouri 64116

Future Farmer Supply Service  
P.O. Box 15159  
Alexandria, Virginia

Goodheart-Wilcox Company, Inc.  
18250 Harwood  
Homewood, Illinois 60430

Henington Publishing Company  
Wolfe City, Texas 75496

Hoard's Dairyman  
Fort Atkinson, Wisconsin

Hobart Brothers Company  
Film Library  
Troy, Ohio 45373

Holstein-Friesian Association of Amer.  
Extension Department  
Brattleboro, Vermont 05301

Horticulture Department  
Attn: Dr. James K. Greig  
Waters Hall  
Kansas State University  
Manhattan, Kansas 66506

Houghton Mifflin Company  
Boston, Massachusetts

Interstate Printers & Publishers, Inc.  
The  
19-27 North Jackson Street  
Danville, Illinois 61832

James L. Lincoln Arc Welding Foundation  
P.O. Box 3035  
Cleveland, Ohio 44117

John Deere Service Publications  
John Deere Road  
Moline, Illinois 61265

John Wiley and Son, Inc.  
605 Third Avenue  
New York, New York 11016

Kansas State University Union  
Book Store  
Kansas State University  
Manhattan, Kansas 66506

McGraw-Hill Book Company  
College Division-Midwest Region  
5940 West Touhy Avenue  
Niles, Illinois 60648

Missouri Instructional Materials  
Room 8  
Industrial Education Building  
University of Missouri  
Columbia, Missouri 65201

Modern Talking Picture Service  
3718 Broadway  
Kansas City, Missouri 64111

NASCO  
Fort Atkinson, Wisconsin

National Meat & Livestock Board  
Department of Consumer Communications  
36 South Wabash Avenue  
Chicago, Illinois 60603

Ohio Agricultural Education  
Curriculum Materials Service  
Room 201 2120 Fyffe Road  
Columbus, Ohio 43210

Phillips Petroleum Company  
Film Library  
310 West Fifth Street  
Bartlesville, Oklahoma 74003

Portland Cement Association  
33 West Grand Avenue  
Chicago, Illinois 60610

Scott Visual Aids Service  
110 Brantford Lane  
Greenville, S. C. 29605

Sears, Roebuck and Company  
Kansas City, Missouri 64127

Stanley Tool Company  
Educational Department  
600 Myrtle Street  
New Britain, Connecticut 06050

Technical Publications  
1014 Wyandotte Street  
Kansas City, Missouri 64105

Vernard Film Dist Service, C. L.  
113 North East Madison Avenue  
Peoria, Illinois 61601

Visual Education, Inc.  
1425 H Street N.W.  
Washington, D. C. 20005

Vocational Agriculture Service  
434 Mumford Hall  
Urbana, Illinois 61801

Vocational Instructional Services  
Texas A & M University  
F.E. Box 182  
College Station, Texas 77843

Vocational Education Production  
California State Polytechnic College  
San Louis Obispo, California 93401

U.S.D.A.  
Office of Information  
Washington, D. C. 20205

Wheat State Agronomy Club  
Department of Agronomy  
Waters Hall  
Kansas State University  
Manhattan, Kansas 66506

Wm. C. Brown Book Company  
Dubuque, Iowa

A SURVEY OF INSTRUCTIONAL MEDIA UTILIZED FOR  
VOCATIONAL AGRICULTURE AND FFA CONTEST INSTRUCTION IN KANSAS

by

LES D. STREIT

B.S., Kansas State University, 1970

---

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1973



The purpose of this study was to determine the instructional media and materials that vocational agriculture instructors utilize to prepare students for vocational agriculture and FFA contests. The problem was designed to measure the educational value of contests, the instructional media and materials, frequency of media usage, available audiovisual equipment, competencies for equipment utilization, and money budgeted or spent for materials. The study was based on the assumptions that instructional materials for some contests are unavailable and that certain types of media will be preferred and most frequently used in instruction. The results of the study will help to establish criteria for the planning and development of needed materials by individuals, agri-business firms, and state and university planning committees for vocational agriculture and FFA contests.

A questionnaire was developed to collect data from vocational agriculture instructors in Kansas. The five questionnaire categories were: personal data; educational value of contests; participation in contests; instructional materials available for vocational agriculture and FFA contests; importance and utilization of instructional media and materials; availability and competency to operate audiovisual equipment; and money spent on instructional materials. A total of 152 of a possible 173 questionnaires or 87.9% were returned.

The results of the study indicated that most contest were perceived as being valuable instructional activities. Those ranking most valuable were FFA Public Speaking, FFA Leadership School, Livestock Judging, and Agricultural Mechanics. The contests ranking high in educational value also had more instructional materials available for contest preparation. Traditional types

of instructional media ranked higher in importance and were used more frequently than newer types of media. Most vocational agriculture instructors had traditional items of audiovisual equipment available for use and could operate the equipment. Instructors were spending an average of \$320.00 per year on all instructional materials and 19% of this amount was spent for contests materials.

It was recommended by the author that a cooperative effort be initiated to develop materials specifically designed for Kansas vocational agriculture curriculums. In-service training of teachers to utilize new types of instructional media and teaching techniques should be emphasized. It was also recommended that further studies be initiated to determine differences in teaching techniques and that the development of instructional materials be initiated in the form of highly visualized print materials, overhead transparencies, filmstrips and slides.