INFLUENCE OF AUDIO-VISUAL WORKSHOPS UPON TEACHING PRACTICES

by

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Typed by Mary Magoon
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Since the fall of 1946 the Department of Visual Instruction, headed by Dr. Curtis Reid, has conducted a series of "Audio-Visual Workshops" in various centers in Oregon. These workshops have been presented through the Department of Statewide Classes of the General Extension Division of the Oregon State System of Higher Education. Reid and staff have planned the programs for the workshops, and have supervised the follow-up projects of the teachers registering for credit.

After presenting these workshop programs in various centers over a period of three years, it became desirable to make an evaluation of the program as it had been conducted.

**Purposes of the Study**

The purposes of this study are: (a) to survey the effect of the "Audio-Visual Workshops" and the follow-up activities upon the teaching practices of those who registered for credit in the course, (b) to determine which parts and procedures in the workshop programs and the follow-up projects proved to be the most helpful, stimulating, or practical, (c) to determine what difficulties the teachers had encountered in trying to put into practice the ideas and skills which they learned in the workshop and course, and (d) to determine what parts of the workshop and follow-up program should be continued and which discontinued or changed.
Location of the Study

The workshop programs which were chosen for this study were conducted at various centers within the state of Oregon. Included are the seventeen workshops that were conducted under the direction of Reid and staff between September, 1946 and June, 1949. In addition to these, there were other workshop programs with no follow-up; or someone other than Reid or his assistant handled the follow-up.

Subjects Employed

Only those teachers or administrators who had registered for credit and had completed the follow-up projects were contacted in this study. These were, so far as could be determined, regularly employed teachers and administrators in the schools of Oregon. The total number of students who had enrolled in the courses was 618. Questionnaires were sent to 1466 teachers and administrators whose addresses could be determined. Completed questionnaires were returned by 260.

Methods Employed

A questionnaire survey was the method employed to obtain the data used in this study. The questionnaire was devised to obtain the following information from teachers and administrators who had participated in the workshops and follow-up courses:

1. Teaching duties, length of teaching experience, and years of college preparation.

2. Audio-visual aids courses previously completed.
3. Extent to which each had used certain audio-visual aids before and after the workshop-course.

4. Which of several anticipated problems were the greatest obstacles to putting the course into practical use.

5. Which parts of the workshop programs and follow-up activities were the most helpful.

6. What could be done to improve the workshop-course.

7. Whether or not additional audio-visual courses should be offered.

A trial questionnaire was prepared and checked by the writer interviewing six teachers who had been in the Lebanon workshop-course. They were helpful in suggesting changes in the questionnaire. The final form is included in Appendix C.

Sources of Data

The data contained in this thesis were obtained from the following sources:

1. The files of the Department of Visual Instruction.

2. Annual reports of the Department of Visual Instruction.

3. Completed and returned questionnaires.

4. Published and unpublished materials obtained from various sources.

5. Conferences with Reid and others who had been associated with the program under study.
Procedure

The names and addresses of the subjects employed were secured as follows:

1. Complete lists of the people registering at each center were obtained from office files and records of the department.
2. By writing to the city and county superintendents in each of these areas, current lists of the teachers and administrators were obtained.
3. By checking the first lists against the county and city directories, an effort was made to locate as many of the teachers as possible.

With but one exception, questionnaires were sent to only those whose names could be found in the current directories. Since a directory was not received from the Lakeview schools in time to proceed with the study on schedule, questionnaires were sent to all the persons on the registration list for the Lakeview workshop-course.

The final form of the questionnaire was mailed to the 648 teachers and administrators during the first week of May, 1950. About three weeks later a follow-up card was sent to those from whom no questionnaire had been received. The majority of the responses were received by July, however, a few came in during the late summer and early fall.

Tabulation of the results was begun in October, when it was deemed probable that no more questionnaires would be received. The first compilation of the data was made by tabulating the replies by individual workshops. Those who had been in the Parkrose workshop were tabulated
separately, and so on. These in turn were totaled in a final and complete tabulation. The final tally is included in Appendix E. The handling of these data is described further in Chapter III.

Definitions

To assure an understanding of the extent and the intent of this study, it is well that certain terms—as used in this study—be defined.

Workshop. As used herein—and by the persons who put on the programs under study—the term "Visual Aids Workshop", or "Audio-Visual Workshop", includes the following:

1. First, a whole day was devoted to a general overview of the various types of teaching aids, their nature, values, and use. During this day, all of the teachers of a city, area, or county were in attendance. The program consisted usually of: (a) short talks on certain aids, (b) demonstrations of certain aids, (c) sectional meetings for small groups—where teachers had a chance to discuss with each other (and a person in charge) the values and uses of certain aids, and (d) demonstrations before the whole assembled group, or before small groups, of actual teaching with certain aids—particularly the motion picture.

2. The second day—or an equivalent of half of the program—was devoted to actual manipulation of certain aids and devices. This usually consisted of learning to operate the motion picture projector, still picture projectors (filmstrip, slide, opaque), making hand-made lantern slides, and sometimes
operation of sound recording equipment. With a few exceptions, this second part of the program was attended by only those who had registered for the course. In some centers, the entire program was offered to all teachers, whether or not they registered for credit.

The Course. Those who attended the workshop had the opportunity of registering for a course entitled "Construction and Use of Visual Aids"--later changed to "Selection and Use of Teaching Aids". This course, at first, carried 2 term hours of undergraduate or graduate credit. During the last year covered by this study, some students were allowed, by special arrangement, to earn 3 hours credit.

For the most part, the course consisted of participation in the workshop, followed by completion of three projects carried out in the course of the student's regular teaching duties. Written reports on these were required. The projects were:

a. Use of a field trip.

b. Use of an educational motion picture, or with the specific permission of the instructor, an alternative project calling for the use of objects, models, and specimens.

c. An outline of your course of study for one term showing visual aids you plan to use and the purpose in using them. (Appendix B)

Mimeographed instructions for completing the projects were provided. These included required reading in a text book and certain suggested supplementary readings.
Limitations

The conclusions reached in the study of these data might be projected to represent the effects of the workshop-course on all those who did not receive or did not return questionnaires. They cannot be taken as representing the effects upon the teaching practices of those who attended only the first part of the workshop programs. No definite information was available concerning the number of teachers attending only the first day of the workshops. It is estimated, however, that from 2,000 to 2,500 teachers attended the first-day programs during the three year period.

The results of this study are largely quantitative. That is, they give only a measure of the extent of use—and that only a relative amount. There is no way of telling from the returns how wisely the materials were used.

Other limitations to the study are that: (a) 45 percent of the questionnaires were not returned, (b) the workshop staffs varied from one workshop to another, (c) although the same general material was covered in all workshops, there was no strict uniformity in the program schedule and arrangement, (d) there was a lack of information concerning the amount and kinds of equipment used or demonstrated in each program, and (e) detailed programs for the second day—or evening sessions following the first day—were lacking.
CHAPTER II

HISTORICAL BACKGROUND

As background for this study, information was sought concerning: (a) the results of in-service training of teachers in other, though similar, audio-visual aids workshops and courses, (b) teacher training in the use of audio-visual aids throughout the United States, (c) the extent of teacher training in audio-visual aids in Oregon, (d) the history of the Department of Visual Instruction and its activity in the in-service training of teachers, (e) problems which affect the use of audio-visual aids, and (f) the availability of audio-visual materials and equipment in Oregon schools.

While nothing could be found in the literature that could be used for comparison with the effects of the workshop programs under consideration, DeBernardis (6, p. 90) stated that "the workshop program (in Oregon) has been particularly helpful in showing teachers how to use the materials and in helping administrators organize programs to handle them."

Audio-Visual Training in the Forty-Eight States

The extent of teacher training in the United States in the use of audio-visual aids was shown in a survey completed by deKieffer (9) in 1948. This survey was to determine the present activities of state departments of education, university extension divisions, and four-year institutions of higher education in audio-visual education. It was found that fifteen state departments of education offered training in audio-visual education; twenty-eight reported sponsoring conferences
and institutes on audio-visual education; and twenty-one assisted school systems in organizing in-service training programs. (9, p. 3)

Information concerning undergraduate or pre-service training was obtained from 152 colleges and universities. It was found that "128 of these offered 186 courses in summer session, 119 offer 168 courses during the academic year, and forty-seven offer fifty-three courses by extension." (9, p. 7) Among the in-service activities of these colleges and universities were:

1. Short courses. Forty-nine, or 32 percent, of the responding institutions conduct this type of course.
2. Correspondence courses. Five of the responding institutions stated that they offer correspondence courses in audio-visual education, and usually in the extension division.
3. Conferences and institutes. Sixty-four, or 42 percent, of the institutions conduct conferences and institutes. The length of these programs is from one to thirty-two hours. (9, p. 9)

For comparative purposes in this study, it is the in-service training activities of university extension divisions that are of the most interest. The information was obtained from the replies received from fifty-six of the sixty-five active members of the National University Extension Association. "Thirty-six--have separate departments for audio-visual education. Three of these through audio-visual centers serve only their own universities. Others extend their activities to all institutions and organizations in the state." (9, p. 5) The in-service activities carried on by these extension divisions were of five major types:

1. Short courses or workshops. These are offered by twenty-five of the thirty-nine university extension divisions which provide in-service training for teachers. In length they range from sixteen to ninety hours with an average of thirty-two hours. Three of the institutions give no academic credit;
the others give from one to six hours credit.

2. Correspondence courses. Only one division offers this type of work. Others believe that laboratory work is of major importance and that therefore a correspondence course in audio-visual education is not satisfactory.

3. Off-campus classes. These courses are usually a semester in length and carry full college credit. Twenty-three divisions offer this type of work.

4. Conferences and institutes. These activities consist of lectures, demonstrations, and panel discussions. The range in number of hours devoted to this type of activity was from two to thirty-six hours.

5. Publication of audio-visual materials. (9, p. 6)

According to de Kieffer (9, p. 7), the first course given in the use of audio-visual aids was offered in 1921. By 1923, six additional courses in audio-visual aids were offered in various colleges and universities. More were started in 1932 and 1937. The number of such courses has continued to grow until there are at present 186 courses in summer sessions, 168 in the academic year, and fifty-three offered by extension.

Audio-Visual Training of Teachers in Oregon

At present, a course in audio-visual aids is offered during the academic year and during the summer sessions of all the four-year colleges of the Oregon State System of Higher Education. In addition to these, several of the independent colleges offer such a course for prospective secondary teachers. A course is offered regularly by the Portland Extension Center and the Portland Summer Session. In addition to these regular on-campus courses, the Department of Statewide Classes of the General Extension Division of the State System of Higher Education offers extension classes in audio-visual aids. These are held wherever and whenever there is sufficient demand for such a course and are conducted by a qualified instructor under the supervision of the
Department of Visual Instruction. All of these courses are offered as well as the workshop-courses (four to six a year) which are presented by the department's own personnel.

Even with all these opportunities for course work in audio-visual aids, it seems that there is still need for additional in-service training courses for teachers and administrators. According to DeBernardis (6, p. 130)—who in 1951 completed a survey of the audio-visual programs in Oregon schools—only 35 percent of the teachers of Oregon have had audio-visual training equivalent to a college course. Another survey (16) dealing with the in-service training of teachers in Oregon revealed that only 41 percent of the teachers believed their training in "using audio-visual materials and equipment to be adequate." (16, p. 7)

History of The Department of Visual Instruction

The Department of Visual Instruction of the General Extension Division of the Oregon State System of Higher Education came into being in its present form in 1932. (3, p. 13) Previous to that time, there had existed a visual aids service at the University of Oregon at Eugene and a similar agency at the Oregon Agriculture College at Corvallis. The history of both agencies extends back to about 1911. (3, p. 5) The department at Corvallis had its beginning in what was then known as the Department of Information of the Oregon Agriculture College Extension Service.

According to the 1930 annual report (2, p. 4) a Department of Visual Education was set up as separate from the Department of
Information. The staff at that time consisted of a full-time director and a full-time secretary.

In 1932, as one phase of the unification of the services of the state colleges and the university under the State System of Higher Education, the collection of visual aids materials at the University of Oregon was transferred to the department at Corvallis. This move was one of the attempts to eliminate duplication and overlapping of services and activities in the various institutions and departments. The materials and services of both agencies were combined into what has since been known as the Department of Visual Instruction. It was put under the administration of the General Extension Division with the director of the department directly responsible to the Dean of General Extension Division. The department was housed in Agriculture Hall at Oregon State College. Its functions, as outlined in the 1942 and subsequent annual reports, are as follows:

MAJOR ACTIVITIES

1. Promotion of the use of visual aids in all educational activities in this state.
2. Training instructors in good usage of visual materials, including the manipulation of equipment.
3. Maintenance of a loan library of educational motion pictures, lantern slides, film slides, photographs, exhibits, phonograph records and projection equipment; servicing requests for loan.
4. Preparation of special visual aids such as charts, exhibits, etc.; supervision of all off-campus exhibits.
5. Counselor to Federal Extension Staff, teachers, school administrators, and others concerning the source, purchase, use, care, etc. of visual and audio equipment and materials.
6. Promotion and supervision of visual instruction training in the education departments of the State System of Higher Education. (13, p. 6)

The Department of Visual Instruction, presently housed in the Oregon State College Coliseum, has grown until its services require
a staff of thirteen people—four professional and nine clerical. Most of the clerical staff is engaged in providing the services offered by the department through its library of audio-visual materials. This library now contains 2129 16mm. motion pictures, 227 filmstrips, and forty-four sets of color slides. (14, p. 13) From December 1, 1950, to November 31, 1951, the motion pictures of the department's library were shown in 40,604 different meetings with a combined attendance of 2,807,136. The slides were shown in 1,156 meetings to a total of 66,181 persons. The major part of this distribution is to public schools in Oregon. Of the 40,604 meetings at which motion pictures were shown, 36,099 were in public schools, 1,075 in colleges, 520 in adult classes, 411 in extension work with farm groups, and 258 were civic group meetings. (14, p. 6)

In-Service Training Activities of The Department of Visual Instruction

The earliest efforts of the department in promotion of the public school use of audio-visual aids were displays or demonstrations held in conjunction with county or state educational meetings. Other methods used by the director to give in-service training in the use of visual materials consisted of programs broadcast over KOAC and contacts with administrators and teachers—both personal and through correspondance.

The first formal training of Oregon teachers in the use of audiovisual materials and devices was offered in the summer session program of Oregon State College in 1937. The 1937 annual report (14, p. 5) states that the "department....cooperated with the resident staff of the school of education in giving the first course in Visual Instruction
ever offered by any institution of higher education in Oregon." Since then, courses in the selection, production and use of audio-visual aids have been added to the summer session and regular term offerings of all the state institutions of higher education.

In the fall of 1945 the in-service program presently under study was inaugurated with the workshop held at Parkrose. From that time until March, 1962, seventeen workshop-courses were conducted by the personnel of the department. In addition, several other workshop or institute programs were conducted, but with other instructors than the personnel of the Department of Visual Instruction supervising the follow-up work.

**Status of Audio-Visual Aids in Oregon Schools**

Since this study shows that the amount and availability of audio-visual equipment and materials is a major problem to those who wish to make the fullest use of the workshop course in their teaching, some of the information obtained in the DeBernardis (6) survey should be considered. Part of the survey revealed the amount of audio-visual equipment and materials that are owned by or used in Oregon schools. Certain other phases of an audio-visual program were also investigated. These included amount of released time allowed persons responsible for audio-visual programs, audio-visual materials produced in schools, number of teachers who had training in the use of audio-visual aids, and obstacles to the use of materials and equipment.

Of the amount of equipment available, DeBernardis states that the "data show that Oregon schools have a higher ratio of equipment than the average for the United States (1). However, it should not be
concluded that Oregon schools have adequate equipment to carry on an
effective audio-visual program. Even with the fine progress Oregon
schools have made in obtaining audio-visual equipment, they still fall
short of the standards set up for those aids by the American Council
on Education (15).""

A comparison of the amount of equipment available in Oregon and
that available in schools throughout the whole nation are as follows:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Amount per thousand students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Oregon</td>
</tr>
<tr>
<td>1. Radios</td>
<td>6.2</td>
</tr>
<tr>
<td>2. Record players</td>
<td>4.5</td>
</tr>
<tr>
<td>3. Slide and filmstrip projectors</td>
<td>3.4</td>
</tr>
<tr>
<td>4. Sound motion picture projectors</td>
<td>2.8</td>
</tr>
<tr>
<td>5. Opaque projectors</td>
<td>1.3</td>
</tr>
<tr>
<td>6. Recording equipment</td>
<td>1.1</td>
</tr>
<tr>
<td>7. Central sound systems</td>
<td>.4</td>
</tr>
</tbody>
</table>

(6, p. 116)

The degree to which audio-visual materials were used in Oregon
schools was as follows:

<table>
<thead>
<tr>
<th>Material</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Books</td>
<td>*3.1</td>
</tr>
<tr>
<td>2. Maps and globes</td>
<td>2.7</td>
</tr>
<tr>
<td>3. Bulletin boards</td>
<td>2.6</td>
</tr>
<tr>
<td>4. Charts</td>
<td>2.4</td>
</tr>
<tr>
<td>5. Flat pictures</td>
<td>2.3</td>
</tr>
<tr>
<td>6. Motion pictures</td>
<td>2.1</td>
</tr>
<tr>
<td>7. Exhibits</td>
<td>2.0</td>
</tr>
<tr>
<td>8. Radio</td>
<td>1.7</td>
</tr>
<tr>
<td>9. Field trips</td>
<td>1.6</td>
</tr>
<tr>
<td>10. Filmstrips</td>
<td>1.5</td>
</tr>
<tr>
<td>11. Models</td>
<td>1.3</td>
</tr>
<tr>
<td>12. Public address</td>
<td>1.3</td>
</tr>
<tr>
<td>13. Recordings,</td>
<td>1.2</td>
</tr>
<tr>
<td>14. Recorders--wire,</td>
<td>1.0</td>
</tr>
<tr>
<td>15. Slides</td>
<td>1.0</td>
</tr>
<tr>
<td>16. Stereographs</td>
<td>.5</td>
</tr>
</tbody>
</table>

*Rating scale: 4—excessively, 3—regularly,
2—occasionally, 1—rarely. (6, p. 121)
Materials owned by Oregon schools were as follows:

<table>
<thead>
<tr>
<th>Materials</th>
<th>Per thousand students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 3½ x 4 slides</td>
<td>104.4</td>
</tr>
<tr>
<td>2. Recordings and records</td>
<td>79.7</td>
</tr>
<tr>
<td>3. 2 x 2 slides</td>
<td>68.1</td>
</tr>
<tr>
<td>4. Filmstrips</td>
<td>53.4</td>
</tr>
<tr>
<td>5. Maps (all kinds)</td>
<td>35.7</td>
</tr>
<tr>
<td>6. Mounted picture units</td>
<td>35.5</td>
</tr>
<tr>
<td>7. Transcriptions</td>
<td>14.3</td>
</tr>
<tr>
<td>8. Globes</td>
<td>12.1</td>
</tr>
<tr>
<td>9. Models</td>
<td>11.3</td>
</tr>
<tr>
<td>10. Stereographs</td>
<td>10.6</td>
</tr>
<tr>
<td>11. 16mm. sound films</td>
<td>10.1</td>
</tr>
<tr>
<td>12. Exhibits</td>
<td>6.8</td>
</tr>
<tr>
<td>13. 16mm. silent films</td>
<td>1.4</td>
</tr>
<tr>
<td>14. Slide making materials (kits)</td>
<td>0.8</td>
</tr>
</tbody>
</table>

(6, p. 118)

While there remains much to be done in the training of teachers in the use of audio-visual aids and the promotion of the use of these aids in Oregon schools, much has been done in the past. In this regard, DeBernardis states: "The place of the Department of Visual Instruction of the State System of Higher Education in developing a program for use of audio-visual aids in Oregon has been an important one. Perhaps no other agency has done more to stimulate schools in this direction."

(6, p. 91)
CHAPTER III

THE STUDY

General Information

A survey of seventeen workshop-courses is included in this study. The dates, places of the workshops, the number of students who registered for the follow-up course, the number to whom questionnaires were sent, the number of questionnaires returned by each group, and the percent of the questionnaires returned are listed in Table I. In all, 648 students registered for credit in the follow-up classes of the seventeen workshops. Of this number, no record is available to indicate how many were elementary or high school teachers. Questionnaires were mailed to 666 whose addresses could be determined. Of these, 260 (55 percent) returned completed questionnaires.

In devising the questionnaire, it was thought that it might be helpful in evaluating the results if data could be obtained concerning the length of teaching experience, years of training, and the teaching duties of the respondents. Table II is a tabulation of this information.

It is of interest to note that a majority of these were teachers with many years of classroom experience. Only 10 percent had been teaching five years or less, while well over half had been teaching eleven years or longer. It is also notable that most of the older teachers were teaching in the primary and intermediate grades. Of the 258 tabulated in Table II, 208 (80.5 percent) are shown to be elementary teachers. Of these, the larger number, 110 (42.5 percent),
## TABLE I
THE AUDIO-VISUAL WORKSHOP COURSES STUDIED

<table>
<thead>
<tr>
<th>Place of Workshop</th>
<th>Date Held</th>
<th>Number of Students Enrolled</th>
<th>Number of Questionnaires Sent</th>
<th>Number of Questionnaires Returned</th>
<th>Percent Returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Parkrose</td>
<td>November, 1946</td>
<td>37</td>
<td>19</td>
<td>9</td>
<td>47.</td>
</tr>
<tr>
<td>6. La Grande</td>
<td>October, 1947</td>
<td>20</td>
<td>19</td>
<td>8</td>
<td>42.</td>
</tr>
<tr>
<td>11. Astoria</td>
<td>October, 1948</td>
<td>54</td>
<td>42</td>
<td>32</td>
<td>76.</td>
</tr>
<tr>
<td>12. Ontario</td>
<td>November, 1948</td>
<td>68</td>
<td>38</td>
<td>17</td>
<td>44.</td>
</tr>
<tr>
<td>17. Heppner</td>
<td>March, 1949</td>
<td>15</td>
<td>14</td>
<td>12</td>
<td>85.</td>
</tr>
</tbody>
</table>

**Totals**        | 648            | 466                         | 260                           | 55.                              |
### TABLE IX

**THE YEARS OF EXPERIENCE, TRAINING AND TEACHING DUTIES OF PEOPLE TAKING WORKSHOP-COURSES**

<table>
<thead>
<tr>
<th>Teachers of</th>
<th>Years of Training</th>
<th>Years of Experience</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-5</td>
<td>6-10</td>
<td>11-15</td>
<td>16-20</td>
</tr>
<tr>
<td>Grades 1-3</td>
<td>56</td>
<td>38</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Grades 4-6</td>
<td>27</td>
<td>28</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Grades 7-8</td>
<td>8</td>
<td>13</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Grades 1-8</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Administrators</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Totals</td>
<td>97</td>
<td>82</td>
<td>47</td>
<td>23</td>
</tr>
<tr>
<td>Percent</td>
<td>37.6</td>
<td>31.8</td>
<td>18.2</td>
<td>8.9</td>
</tr>
</tbody>
</table>

1. **Note:** The table includes the distribution of teachers based on their years of training and experience, categorized by different grade levels and roles (e.g., Grades 1-3, Grades 4-6, etc.).
## TABLE III

NUMBER OF HIGH SCHOOL TEACHERS INDICATING THE DIFFERENT SUBJECT AREAS IN WHICH THEY WERE TEACHING

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Number of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Science</td>
<td>9</td>
</tr>
<tr>
<td>2. Mathematics</td>
<td>8</td>
</tr>
<tr>
<td>3. Home Economics</td>
<td>6</td>
</tr>
<tr>
<td>4. English</td>
<td>5</td>
</tr>
<tr>
<td>5. Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>6. Industrial Arts</td>
<td>3</td>
</tr>
<tr>
<td>7. Physical Education and Health</td>
<td>3</td>
</tr>
<tr>
<td>8. Social Studies</td>
<td>2</td>
</tr>
<tr>
<td>9. Library</td>
<td>2</td>
</tr>
<tr>
<td>10. Journalism</td>
<td>2</td>
</tr>
<tr>
<td>11. Music</td>
<td>2</td>
</tr>
<tr>
<td>12. History</td>
<td>2</td>
</tr>
<tr>
<td>13. Art</td>
<td>1</td>
</tr>
<tr>
<td>14. Latin</td>
<td>1</td>
</tr>
<tr>
<td>15. Commercial Training</td>
<td>1</td>
</tr>
</tbody>
</table>
were teachers of the primary grades. Nine (3.5 percent) were teachers of one room schools. Thirty-five (13.6 percent) were high school teachers. Only four were full-time administrators.

The tabulation of the years of experience indicates that the larger number of these, 179 (69.4 percent), had less than four years college training. Seventy-nine (30.6 percent) had a degree or the equivalent of four year's college training.

In brief, the majority of these students were teachers of long teaching experience. They were mostly elementary teachers, principally of the lower grades. Two out of three were working towards a degree and probably renewal of certification by the state department of education.

Only two respondents indicated they had previously taken a course in audio-visual aids. The number of high school teachers teaching in each of the subject areas is shown in Table III.

Use of Available Resources for Teaching

In Part II of the questionnaire the respondents were asked, "To what extent have you used the following instructional materials?" In the check sheet provided they were instructed to, "Check each item in the appropriate column, indicating the extent of your use of each, both before and after taking the workshop course in audio-visual teaching materials." Twenty-three items were suggested. Columns were provided for checking their use as "extensive", "regular", "rare", or "no".

In replying, some teachers failed to check blanks for both before and after taking the course. Such cases were not tallied for either
side of the check sheet. Only those replies that were indicated on both sides of the check sheet for each individual item were tabulated. This accounts for the variation in the total number responding to different items. The total tabulation of these items is shown in Appendix D.

To obtain the figures used in Tables IV, V, VI and VII, the values of 3, 2 and 1 were assigned to "extensive", "regular", and "rare". The total replies for each of these, for each item, were multiplied by the assigned value. These products were totaled and the sum divided by the total number who had replied satisfactorily to that item in the questionnaire. For example, 130 indicated they made "extensive" use of books prior to the workshop. One hundred and two indicated they made "regular" use and one indicated "rare" use. In all, 233 replied, checking both sides of the questionnaire check sheet. To get the rating 2.55 used in Tables IV - VII the following computation was made:

\[3 \times 130 + 2 \times 102 + 1 \times 1 \div 233.\]

The same was done for each item both "before" and "after" for high school teachers, elementary teachers and for all teachers responding to this part of the questionnaire. The ratings obtained were deemed to be adequate for a meaningful interpretation of the results obtained in replies to the questionnaire.

Table IV contains a tabulation of these rating values for high school and elementary teachers separately as well as for total number of teachers replying. It also contains a tabulation of the amount of increase or decrease in the rating. The order in which the items are listed is the same as that on the questionnaire.
<table>
<thead>
<tr>
<th>Teaching Aids</th>
<th>*Rating of Use Before Workshop-Course Teachers</th>
<th>Rating of Use After Workshop-Course Teachers</th>
<th>Amount of Increase or Decrease in Rating Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All H.S. El.</td>
<td>All H.S. El.</td>
<td>All H.S. El.</td>
</tr>
<tr>
<td>Books</td>
<td>2.55 2.37 2.58</td>
<td>2.58 2.10 2.60</td>
<td>.03 .03 .02</td>
</tr>
<tr>
<td>Blackboards</td>
<td>2.46 2.48 2.46</td>
<td>2.60 2.60 2.60</td>
<td>.14 .12 .14</td>
</tr>
<tr>
<td>Bulletin Boards</td>
<td>2.15 1.92 2.22</td>
<td>2.57 2.28 2.61</td>
<td>.42 .06 .39</td>
</tr>
<tr>
<td>Demonstrations</td>
<td>1.90 2.09 1.86</td>
<td>2.22 2.23 2.26</td>
<td>.32 .14 .40</td>
</tr>
<tr>
<td>Dramatizations</td>
<td>1.58 1.06 1.70</td>
<td>1.86 1.16 1.97</td>
<td>.28 .10 .27</td>
</tr>
<tr>
<td>Exhibits</td>
<td>1.78 1.60 1.82</td>
<td>2.33 1.90 2.30</td>
<td>.55 .30 .52</td>
</tr>
<tr>
<td>Flat Pictures</td>
<td>2.09 1.60 2.17</td>
<td>2.46 2.02 2.51</td>
<td>.37 .42 .37</td>
</tr>
<tr>
<td>Field Trips</td>
<td>1.19 1.45 1.13</td>
<td>1.65 1.57 1.68</td>
<td>.46 .12 .55</td>
</tr>
<tr>
<td>Film Strips</td>
<td>.61 .103 .53</td>
<td>1.31 1.10 1.29</td>
<td>.70 .37 .76</td>
</tr>
<tr>
<td>Objects, Specimens</td>
<td>1.81 1.87 1.82</td>
<td>2.20 2.12 2.20</td>
<td>.39 .25 .38</td>
</tr>
<tr>
<td>Models</td>
<td>1.21 1.64 1.17</td>
<td>1.61 1.85 1.57</td>
<td>.37 .21 .40</td>
</tr>
<tr>
<td>Motion Pictures</td>
<td>1.02 1.59 .92</td>
<td>1.73 2.16 1.66</td>
<td>.71 .57 .74</td>
</tr>
<tr>
<td>Public Address Systems</td>
<td>.43 .43 .43</td>
<td>.46 .48 .42</td>
<td>.03 .25 .41</td>
</tr>
<tr>
<td>Radio Broadcasts</td>
<td>.47 .20 .51</td>
<td>.46 .41 .71</td>
<td>.20 .21 .21</td>
</tr>
<tr>
<td>Transcriptions, Records</td>
<td>.58 .43 .72</td>
<td>1.04 .75 1.18</td>
<td>.38 .32 .46</td>
</tr>
<tr>
<td>Recorders (magnetic)</td>
<td>.14 .25 .10</td>
<td>.29 .26 .30</td>
<td>.15 .03 .20</td>
</tr>
<tr>
<td>Recorders (disc)</td>
<td>.21 .28 .19</td>
<td>.35 .28 .36</td>
<td>.11 .00 .17</td>
</tr>
<tr>
<td>Slides (2 x 2)</td>
<td>.26 .48 .22</td>
<td>.55 .67 .52</td>
<td>.29 .19 .30</td>
</tr>
<tr>
<td>Slides (3½ x 4)</td>
<td>.23 .18 .20</td>
<td>.40 .18 .39</td>
<td>.17 .07 .19</td>
</tr>
<tr>
<td>Stereographs</td>
<td>.20 .07 .23</td>
<td>.32 .18 .34</td>
<td>.12 .11 .11</td>
</tr>
<tr>
<td>Opaque Projectors</td>
<td>.33 .21 .35</td>
<td>.69 .18 .71</td>
<td>.36 .26 .36</td>
</tr>
<tr>
<td>Wall Maps</td>
<td>1.77 1.08 1.87</td>
<td>1.97 1.32 2.09</td>
<td>.20 .24 .22</td>
</tr>
<tr>
<td>Wall Charts</td>
<td>1.98 1.66 2.02</td>
<td>2.21 2.00 2.22</td>
<td>.23 .31 .20</td>
</tr>
<tr>
<td>Averages</td>
<td>1.18 1.11 1.18</td>
<td>1.48 1.35 1.50</td>
<td>.30 .21 .32</td>
</tr>
</tbody>
</table>

* Rating Scale: 3—Extensive use, 2—Regular use, 1—Rare use.
Table V contains a tabulation of the ratings of the relative extent of use before the workshop. The items are ranked separately, according to their use by all teachers, by high school, and by elementary teachers. Table VI contains a ranking of the items according to the extent of their use after the workshop-course. Table VII contains a ranking of the teaching aids according to the amount of increase in the rating.

The more common and easily available aids were regularly or extensively used. These include books, blackboards, bulletin boards, flat pictures, wall charts, maps, objects and other exhibit materials. Also rating fairly high were the demonstration and dramatizations. The field trip, however, ranked fairly low. The mechanical teaching aids and the materials for use with them ranked lowest.

The extent of use of the various teaching aids and learning activities after the workshop-course indicated some significant changes. The average increase in rating was .30. This indicated a general increase in the use of all the items listed. The most significant increases seem to be, with a few exceptions, those items that were given the greatest amount of consideration in the workshop programs and the follow-up projects. These were the motion picture, filmstrip, field trip, bulletin board, and exhibits—including objects and specimens of which they are formed. There was only a small increase in the use of the blackboard. However, with the exception of books, it was already the most extensively used visual teaching device. The increase in the use of 2 x 2 slides, the opaque projector, and the demonstration was about average for the whole list of items. The use of various audio
## Table V

**Comparative Ranking of Teaching Aids According to the Extent of Use Before the Workshops**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Teaching Aid</th>
<th>All Teachers Rating</th>
<th>High School Teachers Rating</th>
<th>Elementary School Teachers Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Books</td>
<td>2.55</td>
<td>2.48</td>
<td>2.58</td>
</tr>
<tr>
<td>2</td>
<td>Blackboards</td>
<td>2.46</td>
<td>2.37</td>
<td>2.46</td>
</tr>
<tr>
<td>3</td>
<td>Bulletin Boards</td>
<td>2.15</td>
<td>2.09</td>
<td>2.22</td>
</tr>
<tr>
<td>4</td>
<td>Flat Pictures</td>
<td>2.09</td>
<td>1.92</td>
<td>2.17</td>
</tr>
<tr>
<td>5</td>
<td>Wall Charts</td>
<td>1.98</td>
<td>1.92</td>
<td>2.02</td>
</tr>
<tr>
<td>6</td>
<td>Demonstrations</td>
<td>1.90</td>
<td>1.87</td>
<td>1.87</td>
</tr>
<tr>
<td>7</td>
<td>Objects, Specimens</td>
<td>1.81</td>
<td>1.81</td>
<td>1.86</td>
</tr>
<tr>
<td>8</td>
<td>Exhibits</td>
<td>1.78</td>
<td>1.80</td>
<td>1.82</td>
</tr>
<tr>
<td>9</td>
<td>Wall Maps</td>
<td>1.77</td>
<td>1.70</td>
<td>1.70</td>
</tr>
<tr>
<td>10</td>
<td>Dramatizations</td>
<td>1.58</td>
<td>1.59</td>
<td>1.70</td>
</tr>
<tr>
<td>11</td>
<td>Models</td>
<td>1.21</td>
<td>1.15</td>
<td>1.17</td>
</tr>
<tr>
<td>12</td>
<td>Field Trips</td>
<td>1.19</td>
<td>1.08</td>
<td>1.13</td>
</tr>
<tr>
<td>13</td>
<td>Motion Pictures</td>
<td>1.02</td>
<td>1.06</td>
<td>.92</td>
</tr>
<tr>
<td>14</td>
<td>Transcriptions, Records</td>
<td>.68</td>
<td>1.03</td>
<td>1.03</td>
</tr>
<tr>
<td>15</td>
<td>Film Strips</td>
<td>.61</td>
<td>1.08</td>
<td>.53</td>
</tr>
<tr>
<td>16</td>
<td>Radio Broadcasts</td>
<td>.47</td>
<td>1.06</td>
<td>.51</td>
</tr>
<tr>
<td>17</td>
<td>Public Address Systems</td>
<td>.43</td>
<td>.48</td>
<td>.51</td>
</tr>
<tr>
<td>18</td>
<td>Opaque Projectors</td>
<td>.33</td>
<td>.41</td>
<td>.35</td>
</tr>
<tr>
<td>19</td>
<td>2 x 2 Slides</td>
<td>.26</td>
<td>.41</td>
<td>.35</td>
</tr>
<tr>
<td>20</td>
<td>3/4 x 1 Slides</td>
<td>.23</td>
<td>.28</td>
<td>.23</td>
</tr>
<tr>
<td>21</td>
<td>Disc Recorders</td>
<td>.21</td>
<td>.25</td>
<td>.22</td>
</tr>
<tr>
<td>22</td>
<td>Stereographs</td>
<td>.20</td>
<td>.35</td>
<td>.22</td>
</tr>
<tr>
<td>23</td>
<td>Magnetic Recorders</td>
<td>.14</td>
<td>.67</td>
<td>.10</td>
</tr>
</tbody>
</table>

Average: 1.18

*Rating Scale: 3—Excessive Use, 2—Regular Use, 1—Rare Use.*
## TABLE VI

**COMPARATIVE RANKING OF TEACHING AIDS ACCORDING TO THE EXTENT OF USE AFTER THE WORKSHOP-COURSES**

<table>
<thead>
<tr>
<th>Rank</th>
<th>All Teachers</th>
<th>High School Teachers</th>
<th>Elementary School Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teaching Aid</td>
<td>Rating</td>
<td>Rank</td>
</tr>
<tr>
<td>1</td>
<td>Blackboards</td>
<td>2.60</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Books</td>
<td>2.58</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Bulletin Boards</td>
<td>2.57</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Flat Pictures</td>
<td>2.46</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Exhibits</td>
<td>2.33</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Demonstrations</td>
<td>2.22</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Wall Charts</td>
<td>2.21</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Objects, Specimens</td>
<td>2.20</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Wall Maps</td>
<td>1.97</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Dramatizations</td>
<td>1.86</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>Motion Pictures</td>
<td>1.73</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>Field Trips</td>
<td>1.65</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>Models</td>
<td>1.61</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>Film Strips</td>
<td>1.31</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>Transcriptions, Records</td>
<td>1.04</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>Opaque Projectors</td>
<td>.69</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>Radio Broadcasts</td>
<td>.67</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>2 x 2 Slides</td>
<td>.55</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>Public Address Systems</td>
<td>.46</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>2 x 2 Slides</td>
<td>.40</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>Disc Recorders</td>
<td>.35</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>Stereographs</td>
<td>.32</td>
<td>22</td>
</tr>
<tr>
<td>23</td>
<td>Magnetic Recorders</td>
<td>.29</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>1.48</td>
<td></td>
</tr>
</tbody>
</table>

*Rating Scale: 3—Excessive Use, 2—Regular Use, 1—Rare Use.*
### TABLE VII

**Comparative Ranking of Teaching Aids According to the Amount of Increase in Use Rating**

<table>
<thead>
<tr>
<th>Rank</th>
<th>All Teachers</th>
<th>High School Teachers</th>
<th>Elementary School Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teaching Aid</td>
<td>Increase</td>
<td>Rank Teaching Aid</td>
</tr>
<tr>
<td>1.</td>
<td>Motion Pictures</td>
<td>.71</td>
<td>1. Flat Pictures</td>
</tr>
<tr>
<td>2.</td>
<td>Film Strips</td>
<td>.70</td>
<td>2. Flat Pictures</td>
</tr>
<tr>
<td>3.</td>
<td>Exhibits</td>
<td>.55</td>
<td>3. Film Strips</td>
</tr>
<tr>
<td>4.</td>
<td>Field Trips</td>
<td>.46</td>
<td>4. Wall Charts</td>
</tr>
<tr>
<td>12.</td>
<td>Radio Broadcasts</td>
<td>.29</td>
<td>12. Models</td>
</tr>
<tr>
<td>15.</td>
<td>Wall Maps</td>
<td>.20</td>
<td>15. Blackboards</td>
</tr>
<tr>
<td>17.</td>
<td>3 1/2 x 4 Slides</td>
<td>.17</td>
<td>17. Stereographs</td>
</tr>
<tr>
<td>18.</td>
<td>Magnetic Recorders</td>
<td>.15</td>
<td>18. Dramatizations</td>
</tr>
<tr>
<td>19.</td>
<td>Disc Recorders</td>
<td>.14</td>
<td>19. 3 1/2 x 4 Slides</td>
</tr>
</tbody>
</table>

**Average** | .30 | **Average** | .21 | **Average** | .32

---

*Rating Scale: 3—Excessive Use, 2—Regular Use, 1—Rare Use.*
aids, such as the radio program, records, transcriptions, and school-made recordings, was never included in the program for the first day of the workshop. While there is no definite record of any of the audio aids having been considered in the laboratory sessions, those persons associated with the programs report that the operation of the magnetic recorder was given some consideration in the later programs. It is also reported that the making and use of 3½ x 6 slides was given considerable attention in many of the programs. In view of this, it would seem that there is not the increase in the use of lantern slides that could be expected.

Differences between the ratings given by high school teachers and those indicated by elementary school teachers are of interest. The average increase in rating of use among high schools was .21 as compared with .32 for elementary teachers. The use of the field trip by high school teachers was greater before, while elementary teachers were making the most extensive use of this activity after the course. The amount of increase in the use of most teaching aids was greater among the elementary than among the high school teachers. The exceptions were flat pictures, wall charts, and the public address system. The most notable differences were in the amount of increase in the use of the filmstrip and field trip by the elementary teachers, as compared with the lesser increase in use by the high school teachers.

Obstacles to the Use of Teaching Aids

Part III of the questionnaire, entitled "Problems," was included so as to gain some insight into the difficulties that teachers faced
### Table VIII

**Extent to Which Certain Problems Were Considered as Obstacles to Putting the Workshop and Course Into Practical Use**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Problem</th>
<th>Rating as to Importance</th>
<th>Percent Indicating Importance</th>
<th>Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>All H.S. El.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Getting materials and equipment at the time needed.</td>
<td>2.56 2.74 2.54</td>
<td>66.8 23.2 10.0</td>
<td>228</td>
</tr>
<tr>
<td>2.</td>
<td>Having time for development of teacher-made materials.</td>
<td>2.52 2.38 2.54</td>
<td>63.0 26.0 11.0</td>
<td>219</td>
</tr>
<tr>
<td>3.</td>
<td>Obtaining sufficient equipment.</td>
<td>2.51 2.10 2.57</td>
<td>66.4 18.2 15.4</td>
<td>220</td>
</tr>
<tr>
<td>4.</td>
<td>Darkening of rooms.</td>
<td>2.36 2.18 2.38</td>
<td>56.0 24.7 19.3</td>
<td>227</td>
</tr>
<tr>
<td>5.</td>
<td>Obtaining sufficient materials.</td>
<td>2.30 2.53 2.32</td>
<td>46.3 37.1 16.3</td>
<td>238</td>
</tr>
<tr>
<td>6.</td>
<td>Getting adequate buildings or classrooms.</td>
<td>2.26 2.28 2.24</td>
<td>52.0 22.0 26.0</td>
<td>223</td>
</tr>
<tr>
<td>7.</td>
<td>Coordinating use of materials and equipment.</td>
<td>1.95 1.81 1.97</td>
<td>26.8 42.0 31.2</td>
<td>209</td>
</tr>
<tr>
<td>8.</td>
<td>Knowing where to get materials.</td>
<td>1.88 1.66 1.92</td>
<td>25.0 38.6 36.4</td>
<td>216</td>
</tr>
<tr>
<td>9.</td>
<td>Operating or maintaining equipment properly.</td>
<td>1.79 1.58 1.83</td>
<td>22.6 34.3 43.1</td>
<td>207</td>
</tr>
<tr>
<td>10.</td>
<td>Getting administrative support.</td>
<td>1.52 1.48 1.54</td>
<td>13.5 26.0 60.5</td>
<td>215</td>
</tr>
<tr>
<td>11.</td>
<td>Getting the cooperation of the community.</td>
<td>1.50 1.33 1.53</td>
<td>11.6 27.6 60.8</td>
<td>232</td>
</tr>
<tr>
<td>12.</td>
<td>Getting cooperation of fellow teachers.</td>
<td>1.38 1.50 1.35</td>
<td>6.7 21.6 68.7</td>
<td>211</td>
</tr>
<tr>
<td></td>
<td>Averages</td>
<td>2.04 1.96 2.06</td>
<td>38.0 28.3 33.2</td>
<td>220</td>
</tr>
</tbody>
</table>

*Rating Scale: 3—Major, 2—Minor, 1—No importance.*
in putting to use their knowledge and skills in the use of audio-visual
teaching materials. It was hoped that this information might help in
evaluating the results of the workshop-course and be of assistance in
planning future programs and classes.

The teachers were asked: "Which of the following do you consider
as obstacles to your putting the course into practical use?". Twelve
anticipated problems were suggested. Space was allowed for each to be
checked as being of "major", "minor", or of "no" importance. The in-
structions were: "Check each item, indicating the degree of their
importance to you as obstacles to your putting the course into pract-
ical use."

The responses to Part III were tabulated separately for high school
and elementary teachers. As in Part II, the values of 3, 2, and 1 were
assigned to "major", "minor", and "no" importance, respectively. The
final rating was calculated in the same manner as for Table IV. In
addition, the percent of the respondents indicating each as major,
minor or of no importance was also determined. The final figures ob-
tained are tabulated in Table VIII. In this table the items are ranked
according to the rating given them by all teachers. The following is a
listing of these same items ranked according to the rating given them
by high school and elementary teachers:

**Ranking of Problems Among High School Teachers**

1. Getting materials and equipment at the time needed. 2.74
2. Obtaining sufficient materials. 2.53
3. Having time for development of teacher-made materials. 2.38
4. Getting adequate buildings or classrooms. 2.28
5. Darkening rooms. & 2.18 \\
6. Obtaining sufficient equipment. & 2.10 \\
7. Coordinating use of materials and equipment. & 1.81 \\
8. Knowing where to get materials. & 1.66 \\
9. Operating or maintaining equipment properly. & 1.58 \\
10. Getting cooperation of fellow teachers. & 1.50 \\
11. Getting administrative support. & 1.48 \\
12. Getting the cooperation of the community. & 1.35 \\

**Ranking of Problems Among Elementary School Teachers**

1. Obtaining sufficient equipment. & 2.57 \\
2. Getting materials and equipment at the time needed. & 2.54 \\
3. Having time for development of teacher-made materials. & 2.54 \\
4. Darkening rooms. & 2.38 \\
5. Obtaining sufficient materials. & 2.32 \\
6. Getting adequate buildings or classrooms. & 2.24 \\
7. Coordinating use of materials and equipment. & 1.97 \\
8. Knowing where to get materials. & 1.92 \\
9. Operating or maintaining equipment properly. & 1.83 \\
10. Getting administrative support. & 1.54 \\
11. Getting the cooperation of the community. & 1.53 \\
12. Getting cooperation of fellow teachers. & 1.35 \\

Getting materials and equipment at the time needed was indicated as the greatest obstacle to all teachers. Lack of time and lack of equipment ranked next in importance; however, both rated closely as a problem. Darkening of rooms, obtaining sufficient materials, and getting adequate buildings and classrooms were next in importance---being
major problems to 45-56 percent of the teachers. Knowing where
to get materials was also a problem of major importance to a fourth of
the teachers, and 22 percent still counted operating and maintaining
equipment as a major problem.

Some of the differences between what the high school and the
elementary school teachers consider of greatest importance are of
interest. High school teachers consider getting sufficient materials,
the cooperation of fellow teachers, and the coordination of materials
and equipment of more importance than do the elementary teachers. On
the other hand, the elementary teachers consider having time to produce
materials, darkening of rooms, operation of equipment, knowledge of
sources, and lack of community and administrative support as being of
more importance than do high school teachers.

Some interesting comparisons might be made between the results
of this tabulation and the results obtained in two other studies. In
the National Educational Association survey (1, p. 165) the following
"major barriers" were listed in the order of frequency with which they
were mentioned:

Major Barriers To The Wider and More Effective Use
of Audio-Visual Materials in City School Systems

Teachers not interested—not prepared to make effective
use of audio-visual aids.
No specially trained director.
Essential equipment not yet purchased.
Buildings need extensive remodeling to adapt them to
audio-visual education.
Funds not available.
Lack of a central audio-visual agency.
No convenient source for renting or borrowing audio-
visual materials.
Indifference of the board of education.
Administrative opposition or indifference.
The DeBernardis survey in Oregon (6, p. 135) shows the following listing of "obstacles to the use of audio-visual materials and equipment" listed in the order of their importance as obstacles:

- Training teachers to use equipment.
- Obtaining adequate materials.
- Obtaining adequate budget.
- Getting teachers to use materials properly.
- Darkening rooms.
- Obtaining adequate equipment.
- Scheduling of materials.
- Organizing the audio-visual program.
- Keeping catalogues of material up-to-date.
- Obtaining specialist's help.
- Getting community support.
- Providing electrical outlets.
- Getting administrative support.

**Specific Evaluation of the Workshop-Course**

In order to have a more specific check upon the effectiveness of various parts of the workshop program and the follow-up projects, Part IV was included in the questionnaire. A general classification of the elements of the workshop-course was made, and blanks were provided for checking each item as "very helpful", "moderately helpful", or "of no help". As with the previous material, the results were tabulated with the replies of high school and elementary teachers totaled separately. Again the values of 3, 2, and 1 were used to determine the over-all rating of each item by the different groups. In addition, the percent of the total number responding to each item was determined and included with the rating figures in Table IX.

In Table IX the items are listed in the order of their rating. The following is a listing of these items in the order of their ratings by the two groups of teachers:
# Table IX

Elements of the Workshop-Course and Their Value to the Participants

<table>
<thead>
<tr>
<th>Rank</th>
<th>Elements of the Workshop-Course</th>
<th>Rating as to Helpfulness</th>
<th>Percent Indicating Helpfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>All  H.S.  El.</td>
<td>Very  Moderately  No Help</td>
</tr>
<tr>
<td>1.</td>
<td>Planning a unit using various audio-visual aids.</td>
<td>2.69  2.78  2.66</td>
<td>76.5  30.4  2.1</td>
</tr>
<tr>
<td>2.</td>
<td>Planning and conducting a field trip.</td>
<td>2.68  2.44  2.74</td>
<td>70.0  28.0  2.0</td>
</tr>
<tr>
<td>3.</td>
<td>Planning for and use of a motion picture.</td>
<td>2.67  2.78  2.67</td>
<td>72.2  23.4  4.4</td>
</tr>
<tr>
<td>4.</td>
<td>Demonstration of teaching with audio-visual aids.</td>
<td>2.66  2.67  2.44</td>
<td>71.5  23.7  4.8</td>
</tr>
<tr>
<td>5.</td>
<td>Operation of motion picture projectors.</td>
<td>2.60  2.64  2.57</td>
<td>66.0  28.2  5.8</td>
</tr>
<tr>
<td>6.</td>
<td>Operation of filmstrip projectors.</td>
<td>2.50  2.45  2.51</td>
<td>60.0  30.9  9.1</td>
</tr>
<tr>
<td>7.</td>
<td>Operation of opaque projectors.</td>
<td>2.19  2.53  2.18</td>
<td>60.0  29.7  10.3</td>
</tr>
<tr>
<td>8.</td>
<td>Discussions of specific aids by small groups.</td>
<td>2.16  2.51  2.18</td>
<td>52.7  44.6  4.7</td>
</tr>
<tr>
<td>9.</td>
<td>Operation of slide projectors.</td>
<td>2.11  2.20  2.15</td>
<td>57.0  27.6  15.4</td>
</tr>
<tr>
<td>10.</td>
<td>Speakers on the general program.</td>
<td>2.35  2.31  2.36</td>
<td>45.3  45.0  9.7</td>
</tr>
<tr>
<td>11.</td>
<td>Making lantern slides.</td>
<td>2.31  2.40  2.29</td>
<td>48.0  35.3  16.7</td>
</tr>
<tr>
<td>12.</td>
<td>Operation of a recording machine.</td>
<td>1.91  2.44  1.91</td>
<td>33.8  27.2  39.0</td>
</tr>
<tr>
<td></td>
<td>Averages</td>
<td>2.18  2.49  2.16</td>
<td>58.5  30.8  10.7</td>
</tr>
</tbody>
</table>

*Rating Scale: 3—Very helpful, 2—Moderately helpful, 1—Of no help.*
Helpfulness of the Various Parts of the Workshop-Course to High School Teachers

1. Planning a unit using various audio-visual aids. 2.78
2. Planning for and use of a motion picture. 2.78
3. Demonstration of teaching with audio-visual aids. 2.67
4. Operation of a motion picture projector. 2.64
5. Operation of opaque projectors. 2.53
6. Discussions of specific aids by small groups. 2.51
7. Operation of filmstrip projectors. 2.45
8. Planning and conducting a field trip. 2.44
9. Making lantern slides. 2.40
10. Speakers on the general program. 2.32
11. Operation of slide projectors. 2.20
12. Operation of a recording machine. 2.14

Helpfulness of the Various Parts of the Workshop-Course to Elementary School Teachers

1. Planning and conducting a field trip. 2.74
2. Planning for and use of a motion picture. 2.67
3. Planning a unit using various audio-visual aids. 2.66
4. Operation of filmstrip projectors. 2.51
5. Operation of opaque projectors. 2.48
6. Discussions of specific aids by small groups. 2.48
7. Operation of motion picture projectors. 2.47
8. Operation of slide projectors. 2.45
9. Demonstration of teaching with audio-visual aids. 2.44
10. Speakers on the general program. 2.36
11. Making lantern slides. 2.29
12. Operation of a recording machine. 1.91
Evidently the projects which the teachers pursued following the workshop program remain in their minds as being of the greatest help. Rating next in importance is the demonstration of teaching with audio-visual aids—a feature of the program on the first day. Operation of the motion picture, filmstrip, and opaque projectors—all features of the laboratory sessions—were considered next in value. Of least value was the operation of the recording machine; a feature that was included in but a few of the later workshops. The next least helpful, but still considered very helpful by nearly half of the respondents, were the making of lantern slides, and the speeches. As used in the questionnaire, the item "Speakers on the general program" included talks which incorporated a demonstration or a display of materials. In the minds of the respondents some of these speeches may have been considered as a "Demonstration of teaching with audio-visual aids". If so, it would be safe to consider the speeches as being of more help than was indicated.

General Evaluation of Individual Workshop-Courses

As a check upon the evaluation of individual programs and their effectiveness, the teachers were asked to indicate whether they considered them "very helpful", "moderately helpful", or of "little help", or of "no help". Table X is a tabulation of the responses to this question. Of the 260, 94 percent indicated their general evaluation. Of these, 64 percent considered the workshop-course very helpful, while one-third of the group considered them moderately helpful. Only 2.3 percent considered them of little or no help. Individual workshops
<table>
<thead>
<tr>
<th>Place of Workshop and Class</th>
<th>Very Helpful</th>
<th>Moderately Helpful</th>
<th>Of Little Help</th>
<th>Total Replying</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Parkrose</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>2. Baker</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>3. Toledo</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>4. Prineville</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>5. Bend</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>6. La Grande</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>7. John Day</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>8. Hillsboro</td>
<td>21</td>
<td>8</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>9. St. Helens</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>10. Rosebury</td>
<td>24</td>
<td>19</td>
<td>2</td>
<td>45</td>
</tr>
<tr>
<td>11. Astoria</td>
<td>21</td>
<td>8</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>12. Ontario</td>
<td>8</td>
<td>9</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>13. Lebanon</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>14. Hood River</td>
<td>18</td>
<td>4</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>15. Lakeview</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>16. Pendleton</td>
<td>16</td>
<td>4</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>17. Heppner</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Totals</td>
<td>158</td>
<td>82</td>
<td>6</td>
<td>216</td>
</tr>
<tr>
<td>Percent</td>
<td>64.4</td>
<td>33.3</td>
<td>2.3</td>
<td></td>
</tr>
</tbody>
</table>
vary considerably from this. Since the numbers recorded for individual programs were so small, it was deemed unwise to draw comparison. It is understandable that the effectiveness of the different workshops would vary. Dr. Reid states that the programs "varied as these factors varied: (a) the staff, (b) adequacy of the facilities, (c) organization and arrangement of the program as to time and topics, (d) the size of the group or groups, and (e) the attitude of the local school people towards the program."

Content of the Workshop Programs

Table XI contains a tabulation of the number of times various topics, materials, or demonstrations were included in the workshop program. Information for this table was obtained from typewritten or mimeographed file copies of the individual programs. Little detail was given concerning the activities on the second day or during the "laboratory periods." A sample of one of the programs is included in Appendix A. Certain topics were considered only before the whole group. Others were considered only in sectional meetings where the groups were smaller. In a few of the programs, certain topics were given consideration in both the general and sectional meetings.

In reply to the question, "Should additional, special or advanced courses be designed to give training in the use of certain teaching aids and resources?", 181 (69 percent) of the 260 respondents replied "yes". Thirty-six or 13 percent indicated "no".

Replies to the question, "What courses would you suggest?" were as follows:
TABLE XI
NUMBER OF TIMES VARIOUS TOPICS OR MATERIALS WERE INCLUDED IN THE WORKSHOP PROGRAMS

<table>
<thead>
<tr>
<th>Topics or Teaching Aid</th>
<th>Number of Times Included on Program in Talks or Demonstrations Before Entire Groups</th>
<th>Number of Times Included on Program in Sectional Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Why Use Visual or Audio-Visual Aids?</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>2. Use of Community Resources. *</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>3. Field Trip Techniques. *</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4. Use of the Bulletin Board.</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>5. Use of the Black Board.</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>6. Selection and Use of Motion Pictures. *</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>7. What Makes a Good Motion Picture?</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>8. Planning for the Use of Audio-Visual Aids*</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>9. Use of the Demonstration.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. Taking and Using 2 x 2 Kodachrome Slides.</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>11. Photography in Teaching.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12. School Records of the Use of Audio-Visual Aids.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>13. Still Pictures and Their Use.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>14. Proper Use of Audio-Visual Aids.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>15. Use of the Opaque Projector.</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>16. Use of Graphic Aids (Charts and Maps).</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>17. Use of Objects, Models and Specimens. *</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>18. Use of Slides and Filmstrips.</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>19. Sources, Selection and Evaluation.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>20. Organization and Administration.</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

* Audio-Visual aids or activities specified in the follow-up projects.
(1) Thirty-two suggested some course in the "selection and use of audio-visual aids in certain subject areas."

(2) Sixteen wished for a course in "making use of local resources and teacher production of materials".

(3) "Administration, supervision and coordination of audio-visual aids" was desired by another sixteen respondents.

(4) Eleven simply requested an "advanced course".

(5) Five suggested a course in "audio aids".

(6) One wanted a course in "radio" in teaching.

While 69 percent indicated their desire for additional courses in the field of audio-visual aids, there is hardly enough interest shown in any one area to warrant consideration of an extension course.

At present the only extension courses in audio-visual aids are the audio-visual aids course "Audio-Visual Aids in Education" and the course "Radio in Education", which is offered by the staff of Radio KOAC.

**Suggestions for Planning Future Workshop-Courses**

In reply to the question, "What specific suggestions could you offer to help in the planning and the conduct of future workshop-courses dealing with audio-visual teaching aids?", many helpful suggestions and criticisms were made. In recording these the suggestions were listed as they were written on the questionnaires. It was found that many were similar though not worded in the same way. To simplify the list, similar suggestions were combined and tabulated under the wording of one of the responses that best covered them all. In some cases the responses were shortened.
Following is a listing of the suggestions with the number of times they were made:

1. More time to practice operation of machines. 30
2. Haven't been able to put some of the course into practice due to lack of equipment at school. 17
3. Have more machines or smaller groups. 13
4. Give more attention to things already in the classroom or that can be made. 10
5. Extension class rather than completion by correspondence. 10
6. Have school board members or parents in on workshops. 6
7. Want training in use of recorders. 6
8. More teaching demonstrations using a particular aid. 5
9. More than 2 hours credit. 3
10. More exact information concerning sources. 3
11. Go more into detail concerning coordination. 3
12. Development or consider uses of audio-visual aids in just one subject area. 3
13. Include photography. 3
14. Object to presence of salesmen, or felt course was too commercialized. 3
15. Cover less, but more thoroughly. 3
16. Covered too much in too short a time. 3
17. More time for evaluating materials. 3
18. More specific instructions as to what is expected in way of written work and follow-up. 3
19. Sell administrators on value of visual aids. 2
20. Give grades of A, B, C, D instead of P or F. 2
21. Have more teaching demonstrations using a variety of aids. 2
22. Spend less time in writing things down. 2
23. Need experience correcting difficulties with equipment. 2
24. Skip slide making. 2
25. Have smaller groups for discussions. 1
26. Have smaller classes. 1
27. Want training in use of sound equipment. 1
28. Organize work as to grade level or around subjects. 1
29. Divide groups according to amount of experience with equipment. 1
30. Let students do more of the demonstrating. 1
31. Have more—on use of blackboard, slide making, bulletin boards, opaque projector, flat pictures, sectional meetings, model making, exhibits of materials, and equipment. 1
Some of the suggestions that might apply to the first day's program are to: (a) have more teaching demonstrations, (b) have smaller groups, (c) go more into detail considering coordination of materials, (d) allow more time, or do not try to cover too much in a short time.

Many of the suggestions applied to the laboratory activities on the second or subsequent days. The main suggestions had to do with getting more equipment or allowing more time for operation of what equipment was available. It was recommended that there be smaller groups and groups formed according to the amount of their experience in handling equipment. Interest was shown also in the operation of recording devices.

For the class in general, the respondents suggested more than two hours credit, regular class sessions, letter grades, more specific instructions, and a variety of suggestions that might be put into practice by an instructor handling regular follow-up class sessions.
CHAPTER XIV

SUMMARY, RECOMMENDATIONS AND PROPOSED PROGRAMS

Conclusions

It is evident from this study that the program of the audio-visual workshop and course as it had been carried on by the Department of Visual Instruction had had a definite influence upon teaching practices, however, there was room for improvement. An analysis of the information obtained leads to the following conclusions:

1. The workshop and course stimulated more extensive use of all teaching aids and learning activities. The average increase in rating of use indicates a 25 percent increase in the extent of use of all types of teaching aids and activities.

2. Those aids and activities given the greatest amount of attention in the workshop program or in the follow-up projects showed the most increase in use.

3. The type of in-service projects required of teachers completing the course was a major factor in its success.

4. Demonstrations of the use of certain teaching aids were the most helpful part of the first day of the workshop program.

5. Supervised laboratory experiences in the handling of audio-visual equipment were very helpful in so far as the amount of equipment and time allowed.

6. All the features of the workshop program were successful and helpful to some extent, but improvements in their organization and
handling should be made.

7. All the foregoing features of the workshop program and the follow-up course should be retained, but improved and altered in light of local conditions and problems, and as suggested under "Recommendations for Future Audio-Visual Workshop-Courses".

8. The pattern of the in-service course as offered by the Department of Visual Instruction should be continued and, if possible, be extended.

9. For the present, no new or additional audio-visual courses need be inaugurated or extended to the teachers of the state by the Department of Visual Instruction through the agency of the Department of Statewide Classes.

10. Flexibility should be allowed in the follow-up projects so as to allow individuals to adapt the projects to their certain special problems or interests.

11. The workshop program should continue to be offered—with or without the follow-up course—and should be adjusted to suit the needs of the locality in which it is offered.

12. The unsuitability of classroom facilities and the lack of equipment and materials have been a definite deterrent to full application of the course by all teachers.

13. The lack of coordination of available materials and equipment, within the school, and the inability to get materials and equipment when needed have been major handicaps to more extensive use of audio-visual teaching materials.
14. The recommendations made for future workshops are justifiable on the basis of the data obtained.

Recommendations for Future Study

Some of the problems encountered in the completion of this study have led the writer to propose the following recommendations for future study:

1. It is recommended that research be conducted to determine to what extent the quality of use of certain teaching aids was affected by these or similar in-service programs.

2. Because of the prevalence of certain administrative problems, it would be helpful to know what effect a satisfactorily organized and functioning audio-visual or instructional materials program has upon, either or both, the quality of use or the quantity of audio-visual materials used by teachers.

3. It would be well to try to determine the relative effectiveness of motion pictures shown in the well darkened classroom as compared with motion picture use in the undarkened or partially darkened classroom.

Recommendations for Future Audio-Visual Workshop-Courses

In view of the information gained through this study, and the conclusions drawn in Chapter V the following recommendations are made:

1. That the workshop-course be completed by having regular follow-up class sessions conducted by certified instructors. Such classes would give the instructor continued opportunity for supervision and guidance of the follow-up activities, and would allow for additional
consideration of problems relative to the selection and use of teaching aids in each student's teaching situation.

2. That three hours of course credit be allowed.

3. That the completion of in-service projects as outlined in Appendix B be maintained as requirements of the course.

4. That, where advisable, alternate projects be allowed that will enable the individual teacher or administrator to apply the skills and knowledge attained through the course to solving certain problems in the administration or supervision of an audio-visual aids program in their school.

5. That the main features of the workshop pattern be maintained, but that the program be adapted to the conditions, problems, and needs of the locality wherein the program is held. This would take into account previous in-service or pre-service training of the teachers, the number of teachers participating, goals of the local in-service program, and existing facilities and equipment.

6. That, in the laboratory program, an adequate amount of equipment and assistance be provided so as to allow all students to participate fully in learning to operate equipment.

7. That the time spent in having the whole group participate in making lantern slides is not justified. That this be handled as a demonstration and thereafter interested teachers be encouraged to proceed on their own time and initiative.

8. That attention be given to audio aids in the sectional meetings, demonstrations, and in follow-up activities.
9. That opportunity be provided for the operation of recording equipment in the laboratory sessions.

10. That attention be given either in the workshop program or in the follow-up class sessions to the preparation and use of simpler or more readily available teaching aids.

11. That audio-visual methods and materials be used to the fullest, and in an exemplary manner, in all phases of the workshop and class. In other words, the staff should demonstrate or practice what it proposes to teach.

12. That the problems of organizing and administering an audio-visual program be included in the workshop program.

13. That the proposed sample programs be taken as patterns for various types of audio-visual workshops.

14. That the limitations of staff and facilities be overcome so as to allow for the greatest number of group or sectional meetings, and that these groups be as small as possible.
Proposed Audio-Visual Workshop-Course Patterns

PATTERN I

For a two-day workshop; the first day of which is for all teachers in the county, district or area; the second day of which is for those who will continue the course.

First Day

General Session:
- Announcements, Introductions.
- Overview or Orientation.

Recess

Sectional Meetings:
- For the full period, or
- Rotation from first to second section.

Lunch

Sectional Meetings:
- For full period, as in the morning, or
- Rotation from a third to the fourth section.

Recess

General Session:
- Open forum or clinic dealing with problems or questions presented by the participants.

Second Day

General Session:
- Registration, Announcements.
- Orientation and instructions for activities of the day.

Group Activities:
- Operation of equipment, or production of materials, or group projects.

Lunch

Group Activities:
- Same as for morning. Perhaps a shift in groups or sections.

General Session:
- Discussion of follow-up course, projects, meetings, etc.
PATTERN II

For a two-day workshop; the first day of which is for all teachers in the county, district or area; the second day of which is for those who will continue the course.

First Day

General Session:
Announcements, Introduction.
Overview or Orientation.

Recess

General Session:
Demonstrations of audio-visual aids and their use, or Illustrated talks.

Lunch

General Session:
Demonstrations of audio-visual aids and their use, or Illustrated talks.

Recess

General Session:
Open forum or clinic dealing with the problems or questions presented by the participants.

Second Day

General Session:
Registration, Announcements.
Orientation and instructions for activities of the day.

Group Activities:
Operation of equipment, or production of materials, or group projects.

Lunch

Group Activities:
Same as for the morning. Perhaps a shift in groups or sections.

General Session:
Discussion of follow-up course, projects, meetings, etc.
PATTERN III

For a two day workshop in which all the teachers of a county or district participate both days.

First Day

General Session:
Announcements, Introductions.
Overview and Orientation.

Recess

Group Meetings: (I)
Small groups discussing use of certain devices, methods or materials. Demonstrations, illustrated talks.

Lunch

Group Meetings: (II)
Same as for the morning, or rotation of groups to a different section where a different topic is considered.

Recess

Group Meetings: (III)
Same as before, or rotation of groups.

Second Day

General Session:
Announcements.
Illustrated talks or demonstrations.

Recess

Group Meetings: (IV)
Same as before, or rotation of groups.

Lunch

Group Meetings: (V)
Same as before, or rotation of groups.

General Session:
For those not taking the follow-up course--
Open forum or audio-visual clinic.
For those taking the follow-up course--
Discussion of follow-up course, projects, meetings, etc.
PATTERN IV

For a school, district, or county wishing to hold a one-day workshop or clinic without having a follow-up course. Organization will depend somewhat upon the size of the group participating, and upon the needs and interests of the participants.

General Session:

- Announcements.
- Introductions.
- Overview and Orientation.
- Determination of problems and projects.

Recess

Group Meetings: (I)

- Groups organized according to interests or problems they wish to pursue.

Lunch

Group Meetings: (II)

- Groups pursuing problems or interests considered in the forenoon or moving on to new areas.

Recess

General Session:

- Audio-visual aids clinic. Discussion of problems presented by the participants.
Check List of Workshop Topics

I

For General Sessions

Demonstrations and illustrations should be included wherever possible.

1. Definition of the field of "Audio-Visual Aids" or "Instructional Materials".
2. Why audio-visual aids should be used. Their relationship to the process of learning and the problems of teaching.
3. Philosophy and methods involved in the wise use of "Community Resources for Teaching".
4. Teacher's and administrator's role in building and effectively operating an "Audio-Visual Materials Program."
5. Administration of an audio-visual program.
6. Planning for the integrated use of all teaching aids.
7. Wise use of the chalkboard.
10. Taking and using 2 x 2 color slides.
11. Selection and use of the filmstrip.
12. Making and using 3 1/2 x 4 lantern slides.
13. Selection and use of the motion picture.
15. Using the tape recorder.
16. Using the opaque projector.
II

For Group or Sectional Meetings

1. Operation of the motion picture projector.
2. Operation of still picture projectors (filmstrip, slide, opaque).
3. Operation of recording devices.
5. Use of still pictures.
6. Use of objects, models, and specimens.
7. Use of graphic aids (maps, charts).
8. Sources of audio-visual aids.
10. Selection and use of audio aids (radio broadcasts, recordings).

III

For Laboratory Sections

1. Operation of projection equipment.
2. Operation of tape recording equipment.
3. Preview and evaluation of projected aids.
4. Audition and evaluation of audio aids.
5. Use of source materials and references to find what audio-visual aids are available for a certain unit or topic.
6. Production of certain teaching aids: flannelgraph, mounted pictures, charts, maps, models, puppets, and the like.
IV

Exhibits and Displays

1. Displays of audio-visual literature: sources of information, catalogues, periodicals, advertising brochures, books and pamphlets on the use of certain teaching aids.
2. Audio-visual equipment and materials.
3. Displays of certain pupil or teacher made teaching aids.
4. Bulletin board displays of audio-visual materials or a sample bulletin board that was developed and used in a classroom.

XI

For Circulation to Teachers

1. Detailed, mimeographed instructions for the follow-up projects.
2. Certain advertising brochures or lists of materials that are important sources of information about audio-visual materials.
3. Supplementary source lists.

VII

Suggested Alternate Projects

1. A single student or administrator, or a committee of teachers from within a single school or school system, lay out plans for and put into action an "audio-visual aids program", incorporating as many as possible of the following:
   a. Centralization and coordination of audio-visual equipment and materials.
   b. Training students and teachers in the operation of audio-visual equipment.
c. Training teachers in the use of audio-visual materials.
d. Teacher training in the production of certain teaching aids.
e. Assistance to the classroom teacher in determining and obtaining audio-visual materials for classroom use.
f. Centralization of sources of information about audio-visual materials and equipment.

2. A single teacher or administrator, or a committee of teachers, work together to produce a "Community Resources" handbook, or file, for use by all fellow teachers and administrators in the school, district or county. Should include information about:

a. Possible field trips.
b. Local resource people.
c. Local collections, museums or exhibits.
d. Suggested sources for objects or specimens.
e. Suggestions for planning and conducting an effective field trip.
BIBLIOGRAPHY


3. Annual report, department of visual instruction. Corvallis, Oregon. United States department of agriculture and general extension division, cooperating, 1932. 52p. (Typewritten)


APPENDIX A

SAMPLE WORKSHOP PROGRAM
## VISUAL AIDS WORKSHOP

Heppner Junior High School  
Heppner, Oregon  
March 21, 22, 23, 24, 1949

Monday, March 21

### Sessions for All Teachers

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
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<tbody>
<tr>
<td>9:00 - 9:15</td>
<td>Explanation of Registration</td>
<td>R. M. Adams</td>
</tr>
<tr>
<td>9:15 - 9:35</td>
<td>Planning the Use of Visual Aids</td>
<td>Ralph Badgley</td>
</tr>
<tr>
<td>9:35 - 10:30</td>
<td>Use of the Motion Picture</td>
<td>R. M. Adams</td>
</tr>
<tr>
<td>10:30 - 10:50</td>
<td>Recess</td>
<td></td>
</tr>
<tr>
<td>10:50 - 11:10</td>
<td>Use of the Blackboard</td>
<td>Curtis Reid</td>
</tr>
<tr>
<td>11:10 - 11:40</td>
<td>Use of the Demonstration</td>
<td>R. M. Adams</td>
</tr>
<tr>
<td>11:40 - 12:10</td>
<td>Use of the Bulletin Board</td>
<td>Curtis Reid</td>
</tr>
<tr>
<td>12:10 - 1:00</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>1:00 - 2:00</td>
<td>Class Demonstration - Use of Visual Aids in the 7th Grade</td>
<td>Floyd Hill</td>
</tr>
<tr>
<td>2:00 - 2:15</td>
<td>Use of Objects, Specimens and Models</td>
<td>Ralph Badgley</td>
</tr>
<tr>
<td>2:15 - 3:00</td>
<td>Recess</td>
<td></td>
</tr>
<tr>
<td>3:00 - 3:45</td>
<td>Community Resources</td>
<td>Floyd Hill</td>
</tr>
<tr>
<td>3:45 - 4:30</td>
<td>Still Pictures, Opaque Projectors, Filmstrips and Slides</td>
<td>Curtis Reid</td>
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### Teachers - Grades 9 through 12

<table>
<thead>
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<tbody>
<tr>
<td>1:00 - 2:00</td>
<td>Class Demonstration - Use of Visual Aids</td>
<td></td>
</tr>
<tr>
<td>2:00 - 2:14</td>
<td>Opaque Projector, Filmstrips, and Slides</td>
<td>R. M. Adams</td>
</tr>
<tr>
<td>2:14 - 3:00</td>
<td>Recess</td>
<td></td>
</tr>
<tr>
<td>3:00 - 3:45</td>
<td>Community Resources</td>
<td>Mrs. Betty Ryan</td>
</tr>
<tr>
<td>3:45 - 4:30</td>
<td>Use of Objects, Specimens and Models</td>
<td>Ralph Badgley</td>
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</tbody>
</table>

### Teachers - Grades 1 through 8

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</thead>
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<td>Community Resources</td>
<td>Mrs. Betty Ryan</td>
</tr>
<tr>
<td>2:15 - 3:00</td>
<td>Recess</td>
<td></td>
</tr>
<tr>
<td>3:00 - 3:45</td>
<td>Opaque Projector, Filmstrips, and Slide</td>
<td>R. M. Adams</td>
</tr>
<tr>
<td>3:45 - 4:30</td>
<td>Maps, Charts and Globes</td>
<td>Floyd Hill</td>
</tr>
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### Administrators and Directors of Visual Aids

<table>
<thead>
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<th>Time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00 - 3:45</td>
<td>Problems</td>
<td>Curtis Reid</td>
</tr>
</tbody>
</table>
Tuesday, Wednesday and Thursday

March 22, 23, 24

7:00 - 9:00 P.M.

Laboratory in use of visual aid equipment and making of lantern slides.
Tuesday evening assembly in the Music Room for preliminary instruction.

STAFF

Russel M. Adams, School Specialist in Visual Aids, Department of Visual Instruction, Corvallis, Oregon
Dr. Curtis Reid, Head, Department of Visual Instruction, Corvallis, Oregon
Ralph Badgley, Professor of Physics, Eastern Oregon College of Education, La Grande, Oregon
Floyd Hill, Supervisor of Teaching in 6th and 7th Grades, Eastern Oregon College of Education, La Grande, Oregon
Mrs. Betty Ryan, Supervisor 2nd Grade, Ackerman Laboratory School, Eastern Oregon College of Education

Howard P. Evans, H. P. Company, Boise, Idaho
W. E. Owens, Owens Motion Picture Service, Portland, Oregon
J. T. Snelson, Snelson Camera Shop, Pendleton, Oregon
APPENDIX B

INSTRUCTIONS FOR FOLLOW-UP ACTIVITIES
Ed 431. THE CONSTRUCTION AND USE OF VISUAL AIDS

Prepared by
William Curtis Reid, Ph.D.
Head, Department of Visual Instruction, General Extension Division
and
Russel M. Adams, M.S.
School Specialist in Visual Aids
General Extension Division

Required Text:

Credit:
Students who complete all requirements of this course, including those of the lecture-demonstration-laboratory periods and the three projects, will receive two term-hours of college credit.

INTRODUCTION

Plan of Course:
This course, taught as an in-service training course, will consist of:

1. Eight or more hours of lecture, demonstration and discussion concerning effective classroom utilization of the various visual aids.

2. At least three periods of not less than 2 1/2 hours each of laboratory work in which the teachers will learn to operate all types of slide projectors, opaque projectors, silent and sound motion picture projectors; will preview various materials including motion pictures, slides, etc.; learn to make hand-made lantern slides; mount flat pictures and maps; and begin planning their projects.
3. Three separate projects to be completed in about three months are as follows:
   a. Use of a field trip.
   b. Use of an educational motion picture, or with the specific permission of the instructor, an alternative project calling for the use of objects, models, and specimens.
   c. An outline of your course of study for one term showing visual aids you plan to use and the purpose in using them.

Text: The text, Dale, Audio-Visual Methods in Teaching (Dryden Press) is to be a reference for you in your execution of the three projects.

You will probably want to read the text through entirely, but you are specifically assigned to read and study Chapters I, II, III, and IV before starting your projects and to refer to them during your work in this course.

Additional assignments are made within each project. Your attention is called to Part III A, wherein the use of visual aids in teaching specific subjects is treated. Things to consider in lesson planning are also treated under the various headings in Part II.

Grading: You will be graded on your laboratory work and on the three written projects. No examinations will be given. Grades will be simply passing or not passing.

Purpose: This course is planned to be as functional as possible in your teaching jobs. All of the three projects are to be accomplished in your normal teaching routine. The work expected of you in accomplishing each project may exceed that you would normally expend in the planning for and utilization of such aids. However, it is only through such analytical projects that your skill can be developed.

Selected References:

William H. Hartley, Audio-Visual Materials and Methods in the
THE CONSTRUCTION AND USE OF VISUAL AIDS

Introduction (Con't.)

Social Studies, 18th Year Book National Council for the
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Hoban, Hoban, and Zisman, Visualizing the Curriculum, Gordon Co.,
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Educational Screen Magazine.
See and Hear Magazine.
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G. E. Hamilton, The Stereograph and the Lantern Slide in Education,
Keystone View Company.
H. A. Gray, Instructional Sound Films Correlated with Public
School Curriculum Materials, Encyclopedia Britannica Films.
B. A. Findlay, Audio-Visual Tools that Teach for Keeps, Los Angeles
City Schools.
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sensory Aids in the Teaching of Mathematics.
K. B. Haas, H. Q. Facker, Preparation and Use of Visual Aids,
Prentice Hall.
ASSIGNMENT I

PROJECT I: THE FIELD TRIP

Reading Assignment:


Assignment:

Plan a field trip with your class. Take the field trip. Turn in your outline of the plans and your report of the trip as directed under "Written Assignment" at the close of the outline of this project.

Purpose of Trip:

(Dale, pages 136-137) The time and energy spent in taking a field trip are justified only when the trip will fulfill a real need and perhaps lead the students to further important activities. Notice in the text (pages 133-137) the purposes of school trips and tours. In selecting your trip fix upon a very specific purpose. For example a trip to the post office might be taken to "Learn how mail is started on its way, and how incoming mail is handled so that it gets to the right person." The students can be led to develop this general purpose into a number of specific things they want to learn: How letters are sent; how packages are sent; how air mail is separated from other mail; how the mail clerks keep track of registered mail; etc.

In your own planning and execution of the trip try to develop as many of the more abstract purposes, such as "capitalizing on the migratory instinct" as you can.

Early Planning:

(Dale, pages 141, 149 and 151-156) Of course the more extensive the trip, the more complicated the plans to be made. Before suggesting the trip to the class, the teacher must be sure of approval by the school authorities and in case a commercial firm or governmental agency is concerned, their approval and cooperation must be assured.
ASSIGNMENT 1 (Con't.)

Be sure to visit the place for the field trip before taking the class, to determine what can be learned. Make contact with the person in charge and if someone on the grounds is to be assigned to conduct the class, go over prospective routes and plan with him time-tables, things to emphasize, etc.

Class Planning:

(Dale, pages 139-140-141) Details of organization of the class for the trip can well be handled by the class itself with the guidance of the teacher. They can plan materials they will need, transportation, squad leaders in case of a large class, committees to concentrate on getting specific information to be reported later to the class.

The need for the trip should develop naturally out of class discussion. The class should then be allowed to develop the specific things they are to learn. They should have every encouragement to learn as much as they can about the general subject before the trip.

The Trip:

Supervise the trip carefully. Follow your plans and time-table. It is so easy to go off on a tangent so that the original purpose of the trip is not realized. Plans should include activities enroute.

Follow-through:

(Dale, pages 150-151 and 155) After the trip is over there should be plenty of time to discuss what was seen and to tie the information into the unit of study. No end of activities present themselves to the alert teacher.

References:

Leona Weier, What About Field Trips, See and Hear, March 1946, pages 59-64.
Hoban, Hoban, and Zisman, Visualizing the Curriculum, pages 145-56.
McKown and Roberts, Audio-Visual Aids to Instruction, Chapters 11, 12, 13.
Written Assignment:

Send to the General Extension Division, Oregon State System of Higher Education, Eugene, Oregon, for checking and comment the following written material:

a. Your outline of the plans you have made for the field trip.

b. A description of what happened before, during and after the trip, including other visual aids used, what the students said, what they did, including activities that grew out of the trip.

c. A criticism of the trip: What were the good points in execution, the poor ones and how these may be corrected another year. Were the results in learning sufficiently pertinent and important to justify the trip? Discuss.
Reading Assignment:

Assignment:

Choose a unit for which you believe a film which is available to you will have value. Schedule the film for preview and for showing to the class. If a teacher's guide is available, be sure to obtain it.

Work out a definite objective for showing the film.

Make a detailed lesson plan for using the film. Write out specific references, questions to be used before showing, pre-showing pupil activities, vocabulary of new and difficult words used in the film and all similar activities for use after showing. Show clearly the steps in your procedure.

Use the film with the class following your lesson plan closely. Then prepare your report according to the written assignment given below.

Purposes:

(Dale, pages 183-195) "Of all the teaching aids used in the classroom, the educational motion picture comes the closest to being self-sufficient. In most films this tendency towards self-sufficiency is a draw-back in that teachers are apt to let the film teach by itself. Little or no improvement is evidenced in the students' learning of the lesson unless the teacher has a definite objective in mind for using the film and then integrates the film through student activity into the lesson to fulfill that purpose."
General Purposes for Use of Films Are:

TO introduce a lesson or unit
TO motivate student interest and further study along chosen lines
TO clarify difficult concepts
TO review and tie the lesson or unit together
TO develop desirable attitudes using dramatic films with emotional appeal.

A film may be used as an introduction when the subject matter of the unit of study is entirely new to the students and you wish to provide a general overall background of experience for the entire class. It may also be used for the main body of instruction or for review and summary. In the main body of instruction new knowledge can be presented, questions answered, concepts clarified, activity motivated, attitudes built. If used in review another method of repeating information, to aid in its retention by the pupils, will be added.

In determining your purpose for using a film be specific. What concepts do you wish to clarify? What are the particular attitudes you wish to develop?

The Lesson Plan:

(Dale, pages 195-203 and pages 211-218)

a. Preview. In previewing a film, study it objectively. Look for the specific purposes it can fulfill. How does it apply to your grade level and class? Look for inaccuracies. Determine the important points you particularly want the students to observe. Do not class, even in your subconscious mind, a film as excellent, mediocre, or poor until you have decided that it is excellent for this or poor for that. Most educational films are poor entertainment but are excellent for fulfilling some specific educational job.

b. What to do before showing the film. The type of activity in the class before showing the film will differ from the part of the unit in which the film is used (introduction, review, etc.).

Suggestions of things to do are: Find out how much pupils already know about things to be seen.
GENERAL EXTENSION DIVISION CORRESPONDENCE COURSE

THE CONSTRUCTION AND USE OF VISUAL AIDS

ASSIGNMENT 2 (Con't.)

Use of flat pictures, models, specimens, maps, etc., to identify things to be seen.

Outline on blackboard with class help the things they want to learn.

Assign specific points to look for in film - write them on blackboard.

Go over new and difficult words which will be encountered in film.

c. During showing. Teacher always in class studying film with pupils. Do not encourage students to take notes. First time, run the film straight through. In later showings films can be stopped to allow discussion of important points. (Do not leave the projector lamp on when you do this as you are apt to damage film.)

d. After showing. Opportunity for discussion should be allowed immediately after the showing. Discussion should be centered around the particular points the class was to look for in the film. Other aids such as models, maps, etc., can often be of much value in such post-showing discussions.

Now interests may be aroused among students; therefore, a list of references for them to read should be ready. Some even may wish to undertake special projects in following their new interest.

Some teachers require students to write reports on the film or to take a test. If not handled right, as after a thorough discussion, this type of follow-up used regularly may make pupils resentful of educational motion pictures, thus destroying all motivating effects.

Selected References:

Brunstetter, How to Use the Educational Sound Film.
H. A. Gray, Instructional Sound Films Correlated With Public School Curriculum Materials.
Hoban, Hoban and Zisman, Visualizing the Curriculum, pages 128-135.
Written Assignment:

Send to General Extension Division, Oregon State System of Higher Education, Eugene, Oregon, for checking and comment the following written material:

a. Include in your report your written lesson plan including major and minor objectives to be realized, steps and procedures.

b. Describe in full the activities centering around the materials. Describe your day's lesson as it actually occurred. Be candid, you will not be graded down because it did not go off as well as you planned. Give specific answers and remarks made by pupils if possible.

c. Write a criticism of your own job of using the film. What worked and what did not? Was the objective realized? How would you change your plans if you were to use the film again?

PROJECT II (ALTERNATIVE): OBJECTS, MODELS, SPECIMENS, EXHIBITS

(This project may be substituted for the motion picture only upon specific permission of the instructor.)

Reading Assignment:


Assignment:

Develop a lesson plan in which the major source of factual information for the students comes through their use of objects, models,
and specimens. This may come about through students' examination and study of materials prepared or secured by you, or through the collection or making of the materials by the students. You may decide to use them in an exhibit.

Teach the lesson as you have planned it, then report to us in accordance with the written assignment given below.

Examples of Acceptable Projects:

Unit on cotton: Specimens of cotton bolls (including seeds). Photograph of cotton gins. Sample of ginned cotton. Samples of cotton yarn and threads. Samples of cotton batting, etc.

Unit on transportation: Student made and collected models of various forms of transportation.

Purpose:

Read carefully pages 83-86 and pages 158-160 in Dale.

Teacher Collected Exhibits:

Many of the objects, models, and specimens used will be ready prepared. Remember that these are disassociated from their natural environment and often are mere representations of the true objects. Therefore, their relation to their true environment must be brought out in class study. There is a real danger of creating entirely erroneous visualizations through such teaching materials if the study is not properly supervised.

Pupil Collected Exhibits:

When the purpose is sufficiently important and adaptable, the activity of pupils finding and preparing materials for presentation to the rest of the class will often surpass the learning possibilities of similar materials placed before them in class.

Such materials may be used in student demonstrations, laid out as exhibits or incorporated into attractive bulletin board displays.
GENERAL EXTENSION DIVISION CORRESPONDENCE COURSE

THE CONSTRUCTION AND USE OF VISUAL AIDS

ASSIGNMENT 2 (Con't.)

In all cases the students should be allowed to carry through the presentation themselves.

References:

Hoban, Hoban, and Zisman, Visualizing the Curriculum, Chapter III.
McKown and Roberts, Audio-Visual Aids to Instruction, Chapter IV.

Written Assignment:

Send to General Extension Division, Oregon State System of Higher Education, Eugene, Oregon, for checking and comment the following written material.

a. Include in your report your written lesson plan including major and minor objectives to be realized, steps and procedures.

b. Describe in full the activities centering around the materials.

c. Criticize your lesson plan in terms of your actual experience with it in the classroom. Suggest what parts you would save and how you would change the rest.
ASSIGNMENT 3

PROJECT III: VISUAL AIDS TO BE EMPLOYED IN TERM'S WORK

Reading Assignment:

Dale, Audio-Visual Methods in Teaching, read about the visual aids referred to in your plans for the term's work.

Assignment:

Using your course of study for a single subject, list unit by unit the visual aids you will use. Include specific field trips, objects, models and specimens, graphic aids, flat pictures, stereographs, lantern slides, film strips and motion pictures, as many as are available.

Indicate how each aid will be used (e.g., as introduction to unit and the general purpose of the aid, visualize such words as dolomite, quartz, mica, etc.).

General Remarks:

If you follow the Oregon State course of study fairly closely, you may use it if it outlines the general teaching plan rather completely by topic or unit.

It is not necessary that you have previewed the aids or made your lesson plan for use of the aids. However, only those aids should be listed which you actually plan to use.

The purpose for using each aid must be functional to the objectives of the course. Do not include material which may pertain to the lesson but be of such supplementary nature as to have little value in helping realize the objectives.

It is common parlance in speaking of visual aids to state, "they should not be treated as a separate subject but that they should be used as supplements to the regular lesson." We agree to the first part of the statement but not to the last. Most efficiently used, visual aids
create a starting point for class activity, present a core of explanations for clarifying the lesson, present a series of associations which so integrate the separate facts learned as to lead directly to the principal objective of the lesson or unit. In other words, they are not supplementary to class work, but are essential and functional in class work.

Sources:

Field Trips: Community Resources, See Dale, Part II, Chapter V, also McKown and Roberts, Sample plans, Chapters 11, 12, 13.

Objects, Models, and Specimens: Community Resources
School and Scientific Supply Houses
School made
Industrial and Commercial, see Dale, Part II, Chapter II

Graphic Materials: School made
School and Scientific Supply Houses
Government Agencies
Illustrated Magazines
Industrial and Commercial Agencies
Dale, Part II, Chapter II

Flat Pictures: Commercial Supply Houses
Industrial Concerns
Government Agencies
Travel Agencies
Post Card Mfg.
Illustrated Magazines
Dale, Part II, Chapter IX

Stereographs: School Supply Houses
Dale, pages 239-240

Lantern Slides, Film Strips and Motion Pictures: Department of Visual Instruction, Oregon State System of Higher Education, Corvallis
ASSIGNMENT 3 (Cont.)

Screen Adettes, 611 N. E. Tillamook Street, Portland
Moore's Motion Picture Service, 306 S. W. 9th, Portland
Cline Craft, 1111 S. W. Stark Street, Portland
Ideal Pictures, 915 S. W. 10th Ave, Portland
See, Dale, Part II, Chapters 7, 8, 9.

Written Assignment:

Send to General Extension Division, Oregon State System of Higher Education, Eugene, Oregon, the following for checking and comment.

a. List Visual aids available to you. How can you secure them?

b. Include in your report your plan for using visual aids in your term work.

c. Criticize your plan in terms of your actual experience with it in the classroom. Suggest what parts you would save and how you would change the rest. Why were some aids used more successfully than others?
APPENDIX C

QUESTIONNAIRE FOR THE STUDY
I. GENERAL INFORMATION

A. Where did you attend a workshop in Audio-Visual Education?

B. How many years of college training have you had?
   Less than three _, Three _, Four _, Five _, More than Five _

C. How many years of public school experience have you had?
   In teaching -- Elementary _, Secondary _
   In administration -- Elementary _, Secondary _

D. Did you complete a course in Audio-Visual Aids before this one?
   Yes ___, No ___, Course title (if any) ____________

E. What grade (s) do you teach? _______________________

F. What subject (s) do you teach? ___________________

II. USE OF AVAILABLE RESOURCES FOR TEACHING

To what extent have you used the following instructional materials?

Check each item in the appropriate column, indicating the extent of your use of each, both before and after taking the workshop course in audio-visual teaching materials.

<table>
<thead>
<tr>
<th>Use before taking course</th>
<th>Use since taking course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extensive</td>
</tr>
</tbody>
</table>

1. Books...
2. Blackboards...
3. Bulletin Boards...
4. Demonstrations...
5. Dramatizations...
6. Exhibits...
7. Flat pictures...
8. Field trips...
9. Film strips...
10. Objects, specimens...
11. Models...
12. Motion pictures...
13. Public address systems...
14. Radio broadcasts...
15. Transcriptions, records...
16. Recorders (magnetic)...
17. Recorders (disc)...
18. Slides (2 x 2)...
19. Slides (3 1/4 x 4)...
20. Stereographs...
21. Opaque projectors...
22. Wall maps...
23. Wall charts...
24. Others...
III. PROBLEMS

Which of the following do you consider as obstacles to your putting the course into practical use? Check each item, indicating the degree of their importance to you as obstacles to your putting the course into practical use.

<table>
<thead>
<tr>
<th>Importance</th>
<th>Major</th>
<th>Minor</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Obtaining sufficient equipment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Obtaining sufficient materials.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Getting administrative support.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Getting cooperation of fellow teachers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Getting the cooperation of the community.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Getting adequate buildings or classrooms.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Coordinating use of materials and equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Knowing where to get materials.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Getting materials and equipment at the time needed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Operating or maintaining equipment properly.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Having time for development of teacher-made materials.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Darkening rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Others</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IV. EVALUATION OF THE COURSE

A. Specific Evaluation

How helpful has this workshop-course been to you in your work as a teacher or administrator? Indicate your evaluation with a check in one of the columns behind each item.

<table>
<thead>
<tr>
<th>Very Helpful</th>
<th>Moderately Helpful</th>
<th>Of No Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sessions including all teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Speakers on the general program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Discussions of specific aids by small groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Demonstration of teaching with audio-visual aids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Laboratory sessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Operation of —</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Motion picture projectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Filmstrip projectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Opaque projectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Slide projectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Operation of a recording machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Making lantern slides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Completion of projects required by follow-up course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Planning for and use of a motion picture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Planning and conducting a field trip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Planning a unit using various audio-visual aids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
B. General Evaluation

In general, the workshop and the follow-up course were:

Very helpful ___ Moderately helpful ___ Of little help ___ Of no help ___

C. Should additional, special or advanced courses be designed to give training in the use of certain teaching aids and resources? Yes ___ No ___

D. What courses would you suggest?

1. ____________________________________________
2. ____________________________________________

E. What specific suggestions could you offer to help in the planning and the conduct of future workshop courses dealing with audio-visual teaching aids?

1. ____________________________________________
2. ____________________________________________
Dear Friend:

I am seeking your cooperation in a follow-up study of the Audio-Visual Aids workshop classes conducted by Dr. Curtis Reid and his staff during the last few years. We want to learn what the effects of these have been upon the teaching practices of those taking the course for credit. Also, we hope that the results will be helpful in planning any future workshop courses in audio-visual aids that might be offered by the General Extension Division.

I will greatly appreciate your filling out the enclosed questionnaire and returning it to me at your earliest convenience.

Thank you for your time and assistance in helping me complete this study. I will compile the results in a master's thesis and, later, may publish a report concerning it.

Yours truly,
DEPARTMENT OF VISUAL INSTRUCTION

By: C. V. Henkle
APPENDIX D

NUMERICAL TABULATIONS
## APPENDIX D

### NUMERICAL TABULATIONS FOR PART II OF QUESTIONNAIRE

## II. USE OF AVAILABLE RESOURCES FOR TEACHING

To what extent have you used the following instructional materials?  
Check each item in the appropriate column, indicating the extent of your use of each, both before and after taking the workshop course in audio-visual teaching materials.

<table>
<thead>
<tr>
<th>Item</th>
<th>Use before taking course</th>
<th>Use since taking course</th>
<th>Totals All</th>
</tr>
</thead>
</table>
|                       | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensive | Regular | Rare | No | Extensible:en
III. PROBLEMS

Which of the following do you consider as obstacles to your putting the course into practical use? Check each item, indicating the degree of their importance to you as obstacles to your putting the course into practical use.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Major Importance</th>
<th>Minor Importance</th>
<th>No Importance</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtaining sufficient equipment</td>
<td>12</td>
<td>13</td>
<td>9</td>
<td>31</td>
</tr>
<tr>
<td>Obtaining sufficient materials</td>
<td>12</td>
<td>98</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Getting administrative support</td>
<td>3</td>
<td>26</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Getting cooperation of fellow teachers</td>
<td>3</td>
<td>11</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Getting the cooperation of the community</td>
<td>0</td>
<td>27</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Getting adequate buildings or classrooms</td>
<td>17</td>
<td>99</td>
<td>6</td>
<td>43</td>
</tr>
<tr>
<td>Coordinating use of materials and equipment</td>
<td>5</td>
<td>51</td>
<td>12</td>
<td>76</td>
</tr>
<tr>
<td>Knowing where to get materials</td>
<td>4</td>
<td>50</td>
<td>12</td>
<td>71</td>
</tr>
<tr>
<td>Getting materials and equipment at the time needed</td>
<td>20</td>
<td>130</td>
<td>9</td>
<td>44</td>
</tr>
<tr>
<td>Operating or maintaining equipment properly</td>
<td>5</td>
<td>42</td>
<td>7</td>
<td>64</td>
</tr>
<tr>
<td>Having time for development of teacher-made materials</td>
<td>15</td>
<td>123</td>
<td>10</td>
<td>47</td>
</tr>
<tr>
<td>Darkening rooms</td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>45</td>
</tr>
</tbody>
</table>
### IV. EVALUATION OF THE COURSE

#### A. Specific Evaluation

How helpful has this workshop-course been to you in your work as a teacher or administrator? Indicate your evaluation with a check in one of the columns behind each item.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Very Helpful</th>
<th>Moderately Helpful</th>
<th>Of No Help</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Sessions including all teachers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Speakers on the general program</td>
<td>13</td>
<td>93</td>
<td>2</td>
<td>46</td>
</tr>
<tr>
<td>b. Discussions of specific aids by small groups</td>
<td>17</td>
<td>108</td>
<td>0</td>
<td>44</td>
</tr>
<tr>
<td>c. Demonstration of teaching with audio-visual aids</td>
<td>23</td>
<td>154</td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td><strong>2. Laboratory sessions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Operation of ---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Motion picture projectors</td>
<td>25</td>
<td>133</td>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>(2) Filmstrip projectors</td>
<td>19</td>
<td>121</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td>(3) Opaque projectors</td>
<td>18</td>
<td>109</td>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td>(4) Slide projectors</td>
<td>12</td>
<td>111</td>
<td>6</td>
<td>42</td>
</tr>
<tr>
<td>b. Operation of a recording machine</td>
<td>10</td>
<td>47</td>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>c. Making lantern slides</td>
<td>18</td>
<td>85</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>d. Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Completion of projects required by follow-up course</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Planning for and use of a motion picture</td>
<td>24</td>
<td>139</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>b. Planning and conducting a field trip</td>
<td>15</td>
<td>152</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>c. Planning a unit using various audio-visual aids</td>
<td>22</td>
<td>138</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>d. Others</td>
<td></td>
<td></td>
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</tbody>
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