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A SURVEY OF THE EXISTING PRODUCTION FACILITIES

49

IN THE SCHOOL DISTRICTS IN THE STATE OF WASHINGTON



A Thesis Presented to the Graduate Faculty Central Washington State College

In Partial Fulfillment

of the Requirements for the Degree

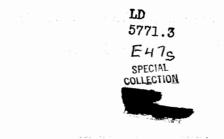
Master of Education

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Edward Stewart Ellis

July, 1968



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APPROVED FOR THE GRADUATE FACULTY

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

The National Defense Education Act (NDEA) and the Elementary and Secondary Education Act (ESEA) of 1965 made funds available to public schools to secure audiovisual equipment and instructional materials. School administrators quickly became aware of these funds and began purchasing all types of equipment. As a result, equipment and materials began flowing into school systems across the nation. In many cases. the administrators ordered these materials knowing full well there was no one in their building or system who was qualified to coordinate them into the school's curriculum. The result was that persons who were mechanically inclined -be they science, physical education, industrial education instructors, or even principals themselves--were assigned the responsibility of coordinating these materials. There were those school systems who were either prepared to train, or who already had, a staff member whose sole responsibility would be to coordinate these materials.

Even though superintendents were ordering equipment and materials, many of the school systems had no centralized location in which to establish a production center. Many administrators did not fully recognize the potential of a production center in their buildings or school district so they made no attempt to organize a center as such.

Similar situations have undoubtedly occurred in public schools in Washington State. It is not the purpose here to suggest that all materials purchased under the NDEA or ESEA, which are not being coordinated by a trained professional, be confiscated. Instead, it is felt that occurrences such as those just discussed leave many questions which must be answered: What production facilities exist now in Washington State's public schools; who staffs these facilities; and, how do these facilities serve the teachers and students?

I. THE PROBLEM

<u>Statement of the Problem</u>. A survey conducted to determine: (1) what facilities exist now in Washington State's public schools for the production of instructional materials; (2) who staffs these facilities; and (3) how these facilities are utilized so it can be decided what is necessary for an adequate production program.

<u>Purpose of the Study</u>. National and international developments in the last two decades have put unprecedented pressure on America's system of education. Problems of increased enrollments in all levels of education, mounting shortages of qualified teachers, insufficient and inadequate school plants, and more school taxes are problems that are confronting educators today. At the same time, educators are concerned with improving teaching effectiveness through the provision of more and better locally prepared instructional materials.

The purposes of this study are to: (1) conduct a survey in Washington State's public schools to determine what production services are available and being utilized by the respective schools; (2) compile and organize the data from the survey; (3) use data from the survey for background information in drawing up recommendations for production programs for schools of various sizes; and (4) circulate the results and recommendations to the school systems in Washington State who have requested a copy of the results of the survey.

II. DEFINITIONS OF TERMS USED

Instructional Materials Center. A center having both book and nonbook facilities and resources.

Building Production Center. A designated area within a school building with equipment and materials where teachers and students can produce instructional materials.

<u>District Production Center</u>. A centralized center serving all the schools and personnel within a school district. The district production center should make materials the teachers are not able to produce and all large scale production should be done at the district level.

<u>County Production Center</u>. A facility serving all the schools within a county. The object of this center is to supplement the building and district centers in the production of audiovisual materials.

CHAPTER II

REVIEW OF THE LITERATURE

Ernest F. Tiemann, Director of the Visual Instruction Bureau of the University of Texas, stated, "It is a well known fact that the most worthwhile learning environment is achieved when teachers and students use some of their own personal materials to stimulate interest" (11:9).

A properly organized, planned, and directed production center can become an important asset to the total instructional program. When teachers are able to participate in the design and production of materials, they will generally utilize them effectively. Students who have the opportunity to produce materials, may use this opportunity to visually construct and grasp the abstract material they have assimilated. In some cases the materials produced by students may be used by the instructor or they may be used by other students.

Probably one of the greatest advantages of locally produced instructional materials is the enthusiasm generated by both the teacher and students. There are probably several reasons for this, one of which is that locally produced instructional materials are made to fit a particular learning situation. They may be constructed to meet the need of a special group of learners, such as slow learners or even a group of exceptional students. Using local production techniques, teachers can make maps, charts, and many other teaching aids that would help tremendously in teaching a concept (11:9-10).

I. RECOMMENDATIONS FOR A BUILDING PRODUCTION CENTER

James W. Brown and Kenneth Norberg, in their book, <u>Administering Educational Media</u>, suggest that within the single school, provisions should be made to provide local materials preparation services and facilities that are inexpensive but of high quality, for which needs are immediate and personal, but which cannot be performed as well by others. Such activities are usually of three types:

<u>Those undertaken by students themselves as vehicles for</u> <u>significant learning experiences in classrooms or</u> shops or as photographic, artistic, dramatic, audiovisual, or library club activities, and the like <u>Those undertaken by teachers</u> in individual classrooms, <u>in special preparation rooms</u>, or in workshops to provide instructional materials urgently and immediately needed for use in their own classes, as for hallway displays, or similar purposes Those undertaken by educational media center personnel

for production within the school building or elsewhere (the district or county media center or through contracts with photo shops, commercial artists, or other outside agencies) (1:123)

They also suggest that a typical single elementary school (with an enrollment of 200-400 students) should provide facilities, supplies, and services of the following types: Mimeograph and spirit duplicators and supplies One or more drafting tables (tilt-top), suitably lighted,

- equipped with T-squares and parallel rulers A light table (with a surface of at least 3 by 4 feet)
- on which to inspect and sort negatives, slides, and transparencies, and do tracing
- Thermal and/or diazo devices (such as thermofax or Ozalid) to be used in producing paper or transparency reproductions of typed, printed, or linedrawn materials
- Recording facilities (a special soundproofed, acousticized room in which instructors, technicians, or students may record, duplicate or edit tapes, or record disk to tape live or in a combination of these forms). This room should contain at least two tape recorders, one or more disk playbacks, a mixing panel, and suitable microphone equipment
- Paper-cutting equipment, preferably one printshop type, heavy-duty cutter capable of trimming or cutting the equivalent thickness of at least 500 sheets of typing paper at a time, as well as other smaller hand-operated cutting boards
- Paper-punching equipment (three-hole and two-hole; perhaps spiral binding types)
- One or more large work table areas on which charts or picture materials may be processed for dry or wet mounting
- A dry mounting press (preferably one capable of accepting 16- or 10-inch mounts) and tacking iron
- One or more 35mm cameras, 8mm or 16mm motion-picture cameras, and Polaroid cameras to be used by teachers in connection with field trips or other special assignments
- Various tools (hammers, small saws, pliers, squares, yardsticks, tape measures, staplers and stapler guns, files)
- Storage and check-out facilities for local preparation materials and supplies (crayons, precut letters, lettering pens, inks, tagboard, mounting board, pressed board, veneer board, tapes, raw film, felt-board materials, muslin, dry-mount tissue, Chartex, thermo or diazo reproduction sheets and supplies, carbons)

Facilities such as those described above for the typical elementary school should, of course, be supplemented for secondary schools. In such institutions, the preparation room must usually be larger and more adequately equipped and supplied and have, in addition: Photographic copying equipment, including a copy stand on which is mounted a good 35mm camera (such as the Contaflex), appropriate copying lights, and controls Simple motion picture (8mm and 16mm) editing equipment, including rewinds, splicers, viewer-editor, editing rack Photographic darkroom containing developing tanks, trays, contact printer, enlarger, timing devices Multilith or other offset printing--duplicating equipment (1:123-24)

Tiemann suggested that the following equipment be made available for use in an average sixteen-teacher school:

- 1 Dry-mount press (commercial size)
- 1 Tacking iron (deluxe model)
- 2 Wrico Educator C models (Extra guides should be made available as school demands dictate their use.) 1 15" metal-edge ruler
- 1 24" metal-edge ruler
- 1 Flexible ruler

In addition to this equipment he recommended enough supplies that will last the entire year. After supplies and equipment have been purchased a suitable location for a production center should be located. The production center should be close to the library so its references may be used (11:42).

In making a facility available, Tiemann suggested the following items should be considered:

- Adequate shelving, properly constructed for special-1. ized storage of materials.
- Large tables for equipment and work surface. Ample electrical outlets and circuits to supply 2.
- 3.
 - power for the specialized equipment to be used.
- 4. Accessibility of the facilities at night and on days when the school building may be closed (11:43).

William D. Schmidt, Coordinator of Instructional Materials at Central Washington State College, wrote:

Individual buildings should have a room equipped with production equipment to produce instructional materials both simply and quickly. . . Included in a building production room should be the following essential equipment:

- 1. A dry mount press
- 2. A spirit duplicator
- 3. A paper cutter 4. A transparency
- 4. A transparency maker (preferably a fast process, such as Thermo-Fax, Viewfax, Transofax, or Addo-fax)
- 5. Typewriters (standard size, but also bulletin or primary type for transparencies)
- 6. Lettering templates, stencils, patterns, etc.
- 7. T-Squares, rulers, scissors, and cutting tools
- 8. Opaque projector for making enlargements

The following supplies would be needed:

- 1. Dry mount tissue and cloth
- 2. Laminating film
- 3. Mounting boards (such as chipboard or white process blanks) and colored poster boards
- 4. Spirit duplicator supplies
- 5. Transparency film 6. A supply of variou
- 6. A supply of various inks (India, acetate, felttip, etc.), crayons, drawing pencils, erasers, and pens
- 7. Butcher paper, construction paper, and oak tagboard
- 8. Clear and frosted acetate
- 9. Transparency mounts
- 10. Wet mounting materials

A room of this type would enable teachers to protect and preserve pictorial or graphic materials by mounting and/or laminating; to prepare spirit duplicator materials; to visualize many concepts by preparing overhead transparency materials; to prepare posters, diagrams, or charts; and to perform various lettering tasks (10:10).

A joint committee of the Washington State Association of School Librarians (WSASL) and the Washington Department of Audiovisual Instruction (WDAVI) proposed standards for the Learning Resources Center (LRC) in 1967. The following are the standards proposed for the local preparation of instructional materials in the elementary and secondary

schools in the State of Washington.

Equipment Useful for Local Production in the Learning Resource Center:

Minimum*

Advanced**

Paper cutter Transparency Production Equipment Spirit Duplicator Primary Typewriter

Add to minimum list as new developments take place and/or demonstrated needs of teachers warrant.

Equipment Available in the Service Unit:

Dry Mount Press and Tacking Iron Polaroid Camera 35mm Camera and accessories as needed Film Rewind Film Splicer (8-16mm) Tape Splicer

- * Minimum of one per building of each equipment item regardless of size.
- ** What constitutes an advanced program would differ from school to school depending upon a number of factors.
 - existing facilities 1.
 - availability of materials 2.
 - variety of materials
 - 3. 4. specific interests of individual faculty members
 - 5. sophistication of faculty in the use of instructional media
 - 6. quality of AV leadership in the school
 - emphasis given media because of specific inter-7. ests of AV personnel
 - existence of (and effectiveness of) inservice 8. programs
 - availability (and extent) of dial-access 9. retrieval and RF (TV) distribution systems
 - administration's philosophy and commitment to 10. the use of media and materials (9:9-10).

II. RECOMMENDATIONS FOR A DISTRICT PRODUCTION CENTER

There had been many requests made to the United States Office of Education and the National Education Association for information, consultation, and personal help in establishing production programs. Consequently, Gene Faris, John Moldstad, and Harvey Frye conducted a national survey of local production programs in operation in 1963.

They predicted, ". . . as educators become aware of the many contributions a well-organized local production program can make to a classroom learning environment, there undoubtedly will be a rapid growth in the number of such programs thoughout the country" (3:114). They thought it would be impossible to recommend an organizational approach for a public school local production program which would fulfill the requirements of all schools. However, they recommended that any basic local production program provision should be made to conduct the following types of activities:

Illustrating

Purchased art illustration materials and other equipment and supplies

Mounting

Dry mounting press Tacking iron Cutting board Dry mounting tissue Laminating materials Mounting cloth Paste, glue, etc. and dispensers Misc. supplies

Lettering

Mechanical lettering devices and/or stencil with special tracing pen T-Square Drafting table Commercially prepared letters Cut-out Gummed back Stencil Acetate Cardboard Inks Misc. supplies

Coloring

Air brush Inks (acetate and drafting) Water colors (opaque and transparent) Colored pencils Felt-tip pens Misc. supplies

Photography

Polaroid camera and copy stand 35mm camera and copy stand Large copy camera and copy stand Equipped darkroom Photographic supplies Misc. equipment

Duplicating

Spirit duplicator Stencil duplicator Light table Copy machine (one only) Diazo or photo or heat Misc. supplies

Eliminating any one of these functions would reduce the potential of the other five; however, combining all six

activities enables one to produce a wide variety of instructional materials. In certain situations it may be impossible to develop the recommended program in its entirety. If this is the case, they thought the logical developmental pattern would seem to be to start with the illustration, mounting, lettering, and coloring areas first and then follow with the photographic and duplicating areas as space and funds become available.

For a more advanced production center the following would be included:

Mounting

Laminating machine

Lettering

Primary typewriter Photo-titler Emboss printing machine

Coloring

Colored adhesive

Photography

8mm motion picture camera 16mm motion picture camera Filmstrip camera Slide reproducer Process camera Other cameras

Duplication

Silk screen Offset Proofing presses Xerox Electronic stencil reproducer (3:114-19) It appeared to them that there is a high correlation between the overall effectiveness of a local production program and the drive, initiative, creativity, and personality of the person in charge of the program. They recommended that as the program grows a graphic expert and audiovisual student assistants should be coordinated into the program.

The "systems approach to instruction" was recommended by Faris, Moldstad, and Frye. They predicted it will become the major educational concern of this decade. The investigators found such functioning programs making important contributions by providing visual teaching materials for use in the classroom and television studio. They thought this suggested organizational approach to local production, when wisely adapted to meet local needs, will prove worthy of the time, money, and effort expended (3:122-24).

The difficulties involved in establishing guidelines for the audiovisual field are very complex. Anna L. Hyer, Executive Secretary of the Department of Audiovisual Instruction, mentions some of the problems involved in such an undertaking. She states:

Setting quantitative standards is somewhat dangerous. In the eyes of many administrators, minimum standards tend to become maximum ones. Furthermore, basic standards need to be adapted to local conditions. It is quite possible that a minimum standard in one school may be fairly adequate for another, and likewise, what is considered ample for one district, is sub-standard for another (5:506). The Department of Audiovisual Instruction Committee on Professional Audiovisual Standards had the responsibility for setting standards for the audiovisual field. The Committee chose to use the term "guidelines" rather than the term "standards" due to flexibility of the ever changing audiovisual field.

The Committee was basically concerned with only personnel, equipment, and materials as a prerequisite to an effective audiovisual program. It was their feeling that adequate leadership is the most important aspect of any audiovisual program. They felt a wealth of equipment and materials in a school can be useless if there is not someone available to inspire teachers to use it and who is capable of providing the knowledge both in utilization and administration.

In establishing the guidelines for audiovisual personnel and equipment the Committee used the Gene Faris-John Moldstad-Harvey Frye study conducted in 1963 which has previously been mentioned in this study (4:201-04).

Many materials can be produced locally for use by the teacher in the classroom. To accomplish this task of local production there should be a graphic arts room or workroom where the teachers can either produce their own materials or have them produced by staff members. William J. Lawler and Eugene Edwards indicate there should be a darkroom and a

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visual aids area, which should be the projection or work area. There should be an embossing and a sign making machine, a Thermofax, a Nord copier, Ozalid printer, dry mount press, radio and recording facilities, and photo making facilities in such a production center (7:545-46).

These locally produced materials are up-to-date and allow the instructor greater flexibility. He can try new things and he can tailor his visual materials to meet the needs of a specific class. The instructor can decide what will work and what will not work in specific instances.

John Moldstad and Harvey Frye, in their article, "A Complete Materials Center," made a diagram of a production center and the following list of materials and equipment needed for a district production center was taken from this diagram:

- I. Workroom
 - A. Airbrush
 - B. Copy camera
 - C. Diazo duplicator
 - D. Lettering equipment
 - E. Dry mounting press
 - F. Storage
 - G. Light table
 - H. Cutting board
 - I. Sink
 - J. Spirit duplicator
 - K. Stencil duplicator
 - L. 35mm copy stand
 - M. Work table
 - N. Motion picture editor
- II. Darkroom
 - A. Enlarger
 - B. Trays
 - C. Sink

D. Washer

- Dryer Ε.
- III. Office and storage (8:48-49)

Carlton Erickson states in his book. Administering

Audio-Visual Services, a district production center should

be equipped with the following facilities:

- 1. Photographic darkroom
- 2. Electrical circuits to carry heavy current drain of print dryer, drymount press, duplicator equipment, small power tools. etc.
- Work counters, sinks, layout tables, and desk space.
- 3. 4. Storage space for construction materials (paper. wood, plastic, metal, etc.)
- 5. 6. Cabinets for the storage of small hand tools.
- Sinks with hot and cold running water.
- 7. Duplicating facilities (mimeograph, multilith.) (2:365-72)

III. RECOMMENDATIONS FOR A COUNTY OR INTERMEDIATE DISTRICT PRODUCTION CENTER

According to Brown and Norberg the county production center serves best in supplementing or complementing the materials preparation activities of the single school by producing items that (1) do not require close personal contact between the teacher and producer; (2) may be developed jointly by teacher and the county staff; or (3) merit standardized duplication, (such as tape recordings, slide sets, study prints). Production centers at the county level also function appropriately in processing film, making prints. mounting flat pictures, or making charts, and bulletin board displays (1:126).

The Alameda County (California) schools maintain an audiovisual production center. The activities of the production center are intended to meet the needs of the local curriculum and to produce materials not available from commercial sources. Duties of this center include preparation of the following instructional materials:

Study print packets. These are specially edited collections of 11- by 14-inch photographs by the center's staff photographer or purchased from commercial suppliers. Collections are packaged in special tied folders, complete with study guides and utilization suggestions. Local productions emphasize activities and landmarks of Alameda County and the Bay Area.

<u>Slide units, 2 by 2 inches</u>. Units are specially planned and photographed by the staff photographer and edited for continuity and emphasis. Study and utilization guides are included.

Duplicated tapes. These are copies of original tape recordings of speeches, conferences, discussions, dramatizations and of noncopyrighted tapes (such as those from the DAVI collection, which are distributed by the University of Colorado) in a master tape file.

<u>Charts</u>. Original layout and artwork is provided by the center, including professional suggestions on visualization possibilities; special applications to the work of central office staff members in the schools.

<u>Pictorial resource material for teacher education</u>. Still pictures (principally black and white) illustrating county office publications for use in displays and for other informational purposes are produced.

Kits. Specimens and artifacts boxed to facilitate shipment to county schools, with accompanying study and utilization guides are prepared.

The production center maintains an indexed file of all negatives and positive proof prints taken by their staff photographers. A major activity of the center is making black-and-white photographs for the various school districts within the county. The cost of this service is defrayed by contracts between the county and the school districts.

The center's facilities include (1) two darkrooms; (2) a production room, which contains mounts, presses, copying racks, and lighting stands; and (3) an art room for graphic preparation (1:126-27).

The schools in San Diego County (California) undertook an unusual community educational resources project to reduce the time lag between the development of new instructional materials and its availability to the teacher. The county staff prepares instructional materials, as well as, gives inservice training to the teachers in the county. Groups of teachers, administrators, and the county staff cooperate on the development of study kits pertaining to their curriculum including such items as films, filmstrips, slides, study prints, and other related materials (1:127-28).

<u>Summary</u>. A well-balanced production center, be it building, district, or county, should provide for the local production of various types of instructional materials to supplement commercial products which are usually designed to have a wide market appeal. Locally produced materials can often meet immediate requirements of the teachers and students without great expense.

Recommended criteria for approving local production projects are based on (1) curricular need, (2) suitability of content, (3) suitability of medium, and (4) feasibility and practicality of production. The single most important question related to application of criteria is: <u>What</u> instructional materials should be prepared locally, <u>for</u> whom, and <u>where</u> (1:136-37)?

It has been emphasized in this chapter that such production may be done in the single school by teachers and students, by the audiovisual director in the district production center, or done at the county audiovisual office.

CHAPTER III

INSTRUMENTATION AND TREATMENT

The procedure taken in this study involved three major areas: (1) development of two questionnaires, one for district audiovisual directors and one for district superintendents of schools who have no audiovisual director; (2) distribution of the questionnaire; and (3) analysis of the returns.

I. INSTRUMENTATION

To compose the two questionnaires, many resources were employed. Tape recordings were made of the discussion sessions regarding production at the Washington Department of Audiovisual Instruction Convention in Bellingham, Washington in the fall of 1967. Many of the questions which arose at this convention are included in the questionnaires. A national survey of the Local Preparation of Visual Instructional Materials was conducted by Faris, Moldstad, and Frye. Many ideas were derived from the questions and responses to this study.

To test the questions for validity and internal consistency, the two questionnaires were submitted to a group of graduate students who were enrolled in the same graduate level course at Central Washington State College. These students had been associated with public schools in one capacity or another. They were to answer the questionnaires assuming they were, first, the superintendent of schools and then assuming they were the district audiovisual director from the school district in which they had worked. Every question was covered as to content and validity. The results of this test, and further research, dictated several revisions. A copy of the final questionnaire may be found in the Appendix.

A questionnaire was mailed to every school district having a student enrollment of at least one hundred. The names and addresses of the officials receiving these questionnaires were obtained from the <u>Washington Educational</u> Directory, 1966-1967 edition.

II. TREATMENT

In order to obtain an accurate picture of production facilities in the school districts of Washington, school districts were categorized according to total student enrollment of each district. It should be noted that, normally, school districts having audiovisual directors are larger than districts having none.

The schools were categorized into four groups according to the student enrollment of the individual school districts in order to present a detailed study. The size of school districts are not the same for audiovisual directors as superintendents because the audiovisual directors are usually located in the larger school districts in the state. The breakdown of school districts is as follows:

Superintendents			Audiovisual Directors				
A.	100-249	A.	100-1999				
в.	250-499	в.	2000-4999				
C.	500-1000	C.	5000-10,000				
D.	over 1000	D.	over 10,000				

The data was reported in descriptive form using frequency of response and percentage. The results are listed in table and figure forms.

CHAPTER IV

RESULTS OF THE SURVEY

The purposes of the questionnaires in this survey were to validate the information that was already available about production facilities in the school districts and to obtain additional data for a more accurate report of production facilities in the school districts of the State of Washington.

Table I shows 179 questionnaires mailed to superintendents with 116 returned and ninety-three questionnaires mailed to audiovisual directors with fifty-eight being returned. It is interesting to note that 65 per cent of the district superintendents answered the questionnaire but only 62 per cent of the audiovisual directors responded.

TABLE I

QUESTIONNAIRE RESPONSES FROM SUPERINTENDENTS AND AUDIOVISUAL DIRECTORS

	Questionnaires Mailed	Questionnaires Returned	Per Cent Returned
Superintendents	179	116	65%
Audiovisual Directors	93	58	62%

Tables II and III report the number of responses from the district superintendents and audiovisual directors according to the size of school districts they represent.

TABLE II

NUMBER OF RESPONSES FROM SUPERINTENDENTS ACCORDING TO THE SIZE OF SCHOOL DISTRICT THEY REPRESENT

Total Responses	30	31	35	20
Size of District	100-249	250-499	500 - 1000	over 1000

TABLE III

NUMBER OF RESPONSES FROM AUDIOVISUAL DIRECTORS ACCORDING TO THE SIZE OF SCHOOL DISTRICT THEY REPRESENT

Total Responses	14	23	14	7	
Size of District	100-1999	2000-4999	5000-10,000	over 1	0,000

I. RESULTS OF QUESTIONNAIRES SENT TO DISTRICT

SUPERINTENDENTS OF SCHOOLS

Figure 1 shows sixty-one of the 112 district superintendents indicated their school district has made some provision for the local preparation of audiovisual materials, with school districts with an enrollment from 500-1000 having the highest percentage.

Forty of the production centers were located in an elementary school building but only fourteen of the production centers were located in the junior high school building as is illustrated in Figure 2, page 27.

Size of District	Number of Responses	Responses in Per Cent
100-249	13 yes	47%
100=249	15 no	53%
250-499	15 yes	52%
230=499	14 no	48%
500-1000	24 yes	69%
	11 no	31%
over 1000	9 yes	45%
	11 no	55%

PERCENTAGE OF SCHOOLS INDICATING PROVISIONS MADE FOR LOCAL PRODUCTION OF AUDIOVISUAL MATERIALS

Size of District	Number of Responses	Responses in Per Cent
	8 Elem	61%
100-249	1 Jr Hi	8%
	4 Sec	31%
	12 Elem	44%
250-499	4 Jr Hi	15%
	11 Sec	41%
	14 Elem	39%
500-1000	4 Jr Hi	11%
	18 Sec	50%
over 1000	6 Elem	38%
	5 Jr Hi	31%
	5 Sec	31%

RESPONSES INDICATING IN WHICH BUILDING THE PRODUCTION CENTER IS LOCATED Overall, Figure 3 shows that sixty-five of the 112 superintendents responding to the question. "Is there a need in your school district for a centralized production center?," felt there was no need for any centralized production center. However, the majority of the superintendents from school districts with a student enrollment over one thousand indicated a need for a centralized production center.

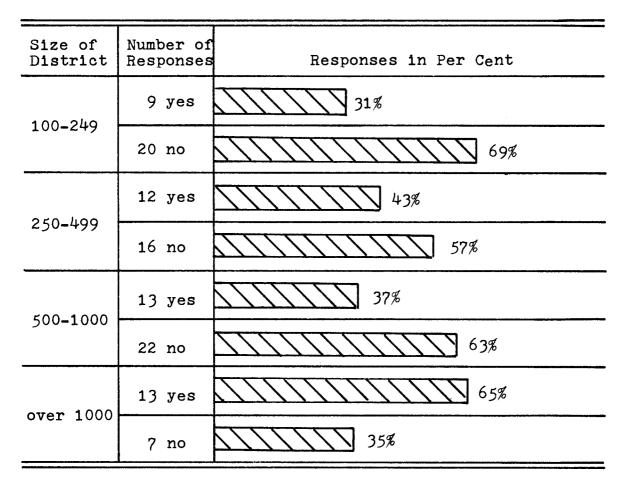


FIGURE 3

RESPONSES INDICATING A NEED FOR A CENTRALIZED PRODUCTION CENTER When the superintendents were asked if their teachers had asked for a production center within their buildings, eighty-five of the 111 or 77 per cent of the superintendents responding said their teachers had not asked for such a facility. However, 50 per cent of the superintendents representing school district with an enrollment over one thousand indicated their teachers had requested such a center as is shown in Figure 4.

Size of District	Number of Responses	Responses in Per Cent
100 240	1 yes	N 4%
100-249	26 no	96%
	7 yes	24%
250-499	22 no	76%
500-1000	7 yes	21%
500-1000	27 no	79%
over 1000	10 yes	50%
over 1000	10 no	50%

FIGURE 4

PERCENTAGE OF TEACHERS ASKING FOR A PRODUCTION CENTER

As shown in Figure 5, superintendents were split fairly evenly when asked if they thought their teachers would make use of a production center in their building. Fifty-four of the ninety-six respondents answered their teachers would use the facilities if they were made available to them.

Size of District	Number of Responses	Responses in Per Cent
100 040	11 yes	50%
100-249	11 no	50%
250 400	1 5 yes	60%
250-499	10 no	40%
500-1000	16 yes	50%
	16 no	50%
over 1000	12 yes	71%
0001 1000	5 no	29%

FIGURE 5

SUPERINTENDENT RESPONSES INDICATING IF THEIR TEACHERS WOULD USE A PRODUCTION CENTER IF THEY HAD ONE Most superintendents felt there was no need for a full time audiovisual director in their school district. Figure 6 shows twenty of the 108 responses indicated a need for such a person.

Size of District	Number of Responses	Responses in Per Cent
100 240	3 yes	12%
100-249	23 no	88g
250 400	2 yes	7%
250-499	26 no	93%
r00 1000	8 yes	24%
500 -1 000	26 no	76%
over 1000	7 yes	35%
over 1000	13 no	65%

FIGURE 6

RESPONSES REGARDING A NEED FOR A FULL TIME AUDIOVISUAL DIRECTOR

Figure 7 shows eighty-eight of the 108 superintendents stated their teachers needed instruction in the operation of production equipment.

	Number of Responses	Responses in Per Cent
100 240	19 yes	73%
100-249	7 no	27%
250 400	24 yes	86%
250-499	4 no	14%
500-1000	29 yes	83%
500-1000	6 no	17%
over 1000	16 yes	84%
	3 no	16%

RESPONSES INDICATING IF TEACHERS NEED INSTRUCTION IN THE OPERATION OF PRODUCTION EQUIPMENT

Twenty-nine schools with an enrollment over five hundred indicated their districts provided some special training for teachers in production techniques, whereas, only twentyone of the school districts with an enrollment of less than five hundred had such a program as illustrated in Figure 8.

Table IV, page 34, shows that superintendents overwhelmingly indicated that most teachers were competent in

Size of District	Number of Responses	\mathbf{R}
100-249	9 yes	35%
100-249	17 no	65%
250-499	12 yes	43%
230-499	16 no	57%
500-1000	19 yes	56%
	15 no	44%
over 1000	10 yes	50%
0001 1000	10 no	50%

RESPONSES INDICATING PROVISIONS MADE FOR THE ORGANIZATION OF SPECIAL TRAINING CLASSES IN PRODUCTION TECHNIQUES FOR THE TEACHERS IN THE SCHOOL DISTRICTS poster and classroom art skills and tape recording. Of all the skills, teachers were least competent in photography and servicing of equipment.

Some superintendents stated that among the entire staff, individuals were competent in one or more areas so overall the staff was competent in all the production skills.

TABLE IV

RESPONSES INDICATING AREAS WHERE SUPERINTENDENTS FELT THEIR TEACHERS WERE COMPETENT IN PRODUCTION SKILLS

	Size of District				Over- all
Area of Competency	100 - 249	250 - 499	500 - 1000	over 1000	Rank
Poster and classroom art skills	20	24	2 8	16	1
Tape recording	21	21	24	16	2
Cataloging, indexing, and filing	11	10	8	6	3
Specimen and model preparations	6	7	8	3	4
Servicing of equip- ment and materials	2	7	4	3	5
Photographic	2	4	3	0	6

Figure 9 shows seventy-four superintendents of the 108 reporting said they did not have enough office help to produce all the materials the teachers requested.

Eighty of the 104 superintendents said yes to the question, "Do your teachers use locally-produced materials?" Figure 10, page 36, shows a higher percentage of teachers

	Number of Responses	Responses in Per Cent
100-249	11 yes	44%
100=249	14 no	56%
	8 yes	28%
250-499	21 no	72%
	12 yes	35%
500-1000	22 no	65%
	3 yes	15%
over 1000	17 no	85%

SUPERINTENDENTS RESPONSES INDICATING IF THEY HAD ENOUGH HELP TO PRODUCE ALL THE MATERIALS THE TEACHERS REQUESTED from the larger school districts using locally-produced materials than teachers from smaller districts.

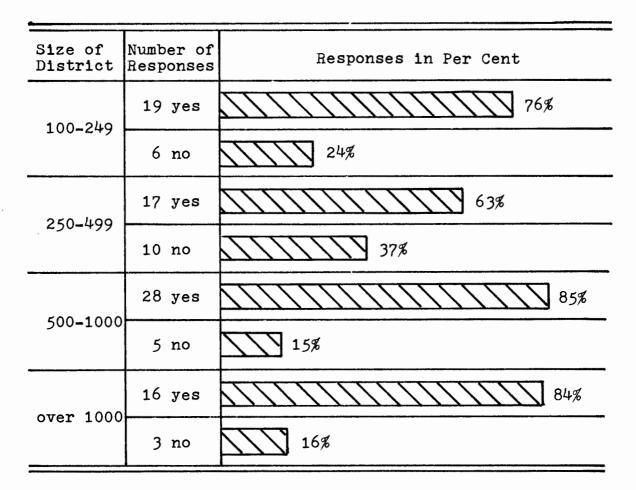


FIGURE 10

RESPONSES INDICATING IF TEACHERS USE LOCALLY-PRODUCED MATERIALS

Figure 11 indicates that teachers were familiar with new instructional materials to fill their teaching needs. Eighty-nine of the 109 superintendents responding reported their teachers had requested new instructional materials.

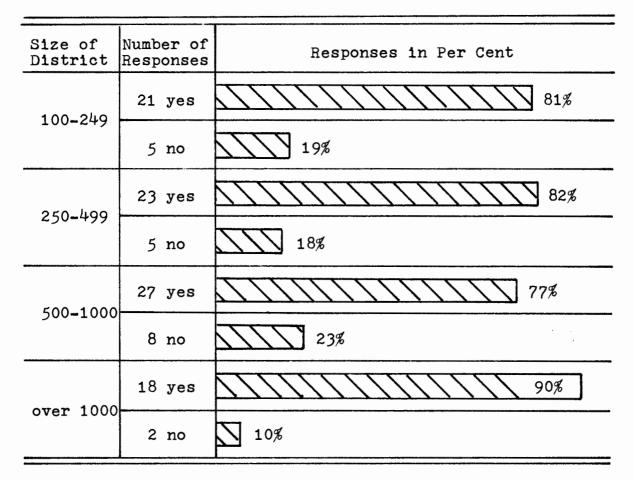
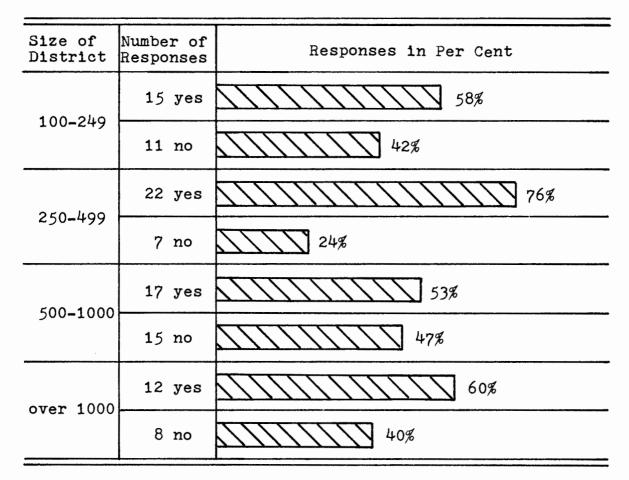


FIGURE 11

RESPONSES INDICATING IF TEACHERS FREQUENTLY SUGGEST NEW INSTRUCTIONAL MATERIALS TO FILL THEIR TEACHING NEEDS

Superintendents were asked, "Do students help prepare learning materials?" Figure 12 shows sixty-six of the 104 superintendents responded yes to this question. A few superintendents stated that students from the art and mechanical drawing classes did most of the graphic and illustrating work.



RESPONSES INDICATING IF STUDENTS HELP PREPARE LEARNING MATERIALS

Table V, page 40, shows the responses superintendents made when asked, "Check each statement that applies to your school district concerning audiovisual coordination at the building level."

An analysis of Table V brought to light some very interesting information concerning coordination of the audiovisual program at the building level.

Listed in rank order, the four most frequently checked statements were:

- 1. Catalogs are readily available for teacher use.
- 2. Equipment is well serviced.
- 3. There is a check-out sheet in each building for equipment so that it can be easily located.
- Teachers know who the coordinator is and his general duties.

It was interesting to note that the statement least checked was, "Adequate time is given to coordinators to carry out their duties."

Because many of the small school districts had their audio tape duplicating done at the county audiovisual office only thirty-five of the ninety-seven superintendents reporting indicated there was a need for audio tape duplicators at the school district level as Figure 13, page 41, illustrates.

Figure 14, page 42, shows sixty-six or 85 per cent of the seventy-eight superintendents representing school districts from one hundred to one thousand students felt several school districts should go together to buy and use some of the more expensive audiovisual equipment. Sixty per cent of the superintendents from school districts with enrollments over one thousand felt the same way about sharing the cost and utilization of this equipment.

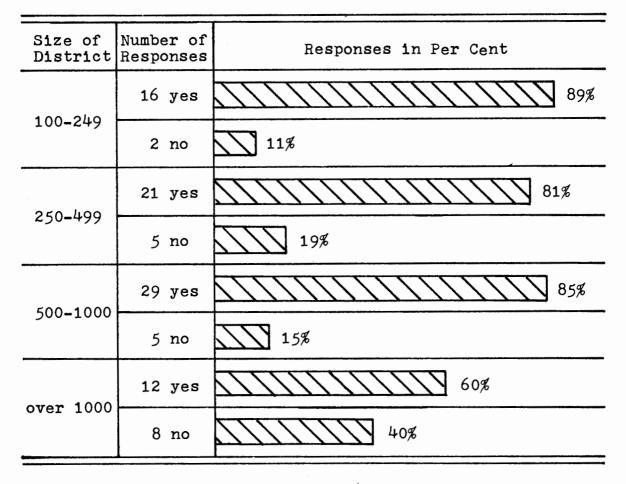
TABLE V

RESPONSES CONCERNING AUDIOVISUAL COORDINATION AT THE BUILDING LEVEL

	100-249	250 - 499	500 -1 000	over 1000
Catalogs are readily available for teacher use.	19	24	33	18
Equipment is well serviced.	15	22	25	17
There is a check-out sheet in each building for equipment so that it can be easily located.	9	13	24	18
Teachers know who the coordinator is and his general duties.	7	14	26	13
The teachers use the services of the building coordinator.	9	9	23	9
Courier service is available.	7	10	17	10
There are trained student assistants to help teachers with mechanical equipment, if needed.	10	10	15	6
There is a trained coordinator for each building.	4	10	12	7
Adequate time is given to coordinators to carry out their duties.	6	4	12	2

Size of District	Number of Responses	Responses in Per Cent
100-249	6 yes	33%
100=249	12 no	67%
250,1100	8 yes	29%
250-499	20 no	71%
500-1000	14 yes	41%
	20 no	59%
over 1000	7 yes	41%
	10 no	59%

RESPONSES INDICATING A NEED FOR AUDIO TAPE DUPLICATORS AT THE SCHOOL DISTRICT LEVEL



RESPONSES INDICATING THE DESIRE FOR SEVERAL SCHOOL DISTRICTS TO GO TOGETHER TO BUY AND USE SOME OF THE MORE EXPENSIVE AUDIOVISUAL EQUIPMENT The superintendents were asked to indicate when their teachers used the production center most extensively. Table VI shows that teachers used the production center most extensively after school and the second most extensive time was before school.

TABLE VI

RESPONSES INDICATING WHEN TEACHERS USE THE PRODUCTION CENTER MOST EXTENSIVELY

Times when preparation	S	ize of D	istrict		Over- all	
facility is used most extensively	100 - 249	250 - 499	500 - 1000	over 1000	Rank	
After school	7	17	18	5	1	
Before school	7	13	16	5	2	
During the teacher's planning period	5	11	14	4	3	
During the noon hour	2	6	1	1	4	
Do not know	1	3	4	1	5	
Other	0	1	1	2	6	

More interest by the teachers along with in-service training and more materials was the consensus of superintendents polled when asked, "What could facilitate the development of a better local production center?" Table VII shows a breakdown of responses made by the district superintendents.

Table VIII, page 46, points out that most mounting materials and equipment for school districts with an enrollment of one hundred to 249 students was located at the county audiovisual office. A majority of the lettering and mounting materials was located at the building level.

Table IX, page 47, Table X, page 48, Table XI, page 49, and Table XII, page 50, show the types of materials produced annually and who produced them as reported by the district superintendents. "Audio Tape Duplicators Made" is being deleted due to a typing error. It should have read "Audio Tape Duplications Made."

The types of visual materials produced most frequently were overhead transparencies and mounted pictures. It is interesting to note that 8mm films were being produced in the school districts. Eight districts reported there were at least twenty-six 8mm films produced in their district during the school year. Listed in rank order, the four most frequently checked types of visual materials produced by teachers were: (1) overhead transparencies, (2) mounted pictures, (3) graphic materials, and (4) 8mm films.

TABLE VII

RESPONSES INDICATING WHAT COULD FACILITATE THE DEVELOPMENT OF A BETTER PRODUCTION PROGRAM

	Weighted Responses of the School Districts						
	100- 249	250 - 499	500 - 1000	over 1000	Overall Rank		
Provide more in-service training	27	26	27	27	1		
More interest by the teachers	15	33	35	17	2		
Provide more materials	18	15	24	24	3		
Provide more equipment	13	18	24	18	4		
Provide more space and facilities for production	8	12	20	24	5		
Provide more time to make materials	12	8	26	17	6		
Provide more specialized help	14	8	18	16	7		
Better accessibility	4	3	7	14	8		
More administrative support	6	6	5	5	9		
Other	3	3	0	0	10		

TABLE VIII

SUPERINTENDENTS RESPONSES INDICATING PRODUCTION EQUIPMENT AVAILABLE TO TEACHERS AT THE BUILDING, DISTRICT, AND COUNTY LEVELS

	BUILDING				DISTRICT				COUNTY			
EQUIPMENT	100- 249	250- 499	500- 1000	over 1000	100- 249	250- 499	500- 1000	over 1000	100 - 249	250- 499	500- 1000	over 1000
MOUNTING				<u> </u>			<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>					
Dry mounting press Laginating material	1 7	1 6	<u> </u>	6 10	2	1 6	6 10	4	2	4	?	2
Mounting cloth Wet mounting		2	3	5		2	5	1	76	1	5	2
LETTERING				1 <u></u>		A		•				
Mech. lettering devices Cut-out letters Transfer letters Stencils Felt-point pens	3 13 5 13 18	2 6 3 9 9	10 18 5 19 26		3 1 1 3	2 6 3 9	4 9 3 13 10	2 2 2	2 2 2 3 2	2	1 1 1	1
Primary or Bulletin tpwtr. PRODUCTION AND REPRODUCTION	12	6	23	19 15	3	6	8	4	3			
Mimeograph Ditto Diazo Silk Screen Multilith	12 20 3 2	12 10 3 2	24 27 2 6	13 19 3	6 5 1 3	12 10 3 2	17 11 6 2	7 2 1 4	4 3 4 4 2	1 2	2 1 3 2 2	1
Xerox Thermo copier Electronic stencil cutter	2 16 1	5 11 1	3 25 1	6 17	2 5 2	5 11 1	6 14	3 4 1	2 4 2	2 2 1	2 1 1	
PHOTOGRAPHY 35mm SLR camera 8mm camera 16mm camera 4x5 camera Polaroid camera Darkroom Copy equipment	2 1 2 5 6 4	2 1 3 4	4 2 4 3 1 8 6	2 1 1 3 6 6	<u>3</u> <u>1</u> <u>1</u> <u>5</u> <u>4</u>	2 1 3 4 4	11 2 2 6 9	4 1 2 5 3 2	3 2 3 2 2 2 2		2 3 1 1 2	1
RECORDING						L	·····					· · ·
Audio tape recorders Audio tape duplicators Video tape recorders	19 2	91	26	19	6	9	9		4	1-1	2	1
Indicate make and model	2	1	2				3	1	3		1	

TABLE IX

SUMMARY OF RESPONSES OF SUPERINTENDENTS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF 100-249 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING PRODUCED	P	RCENT	e what Each Roduces	3	NUMBER OF MATERIALS BEING PRODUCED ANNUALLY					
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL						
	TE	STU	AV DII	A L D L D L D L D L D L D L D L D L D L	1-25	26-50	51 - 75	76-99	Over 100	
Photographs (B & W or Colored)	18%	56%		25%	1	2	2		2	
35MM Slides	33%			67%		2			1	
Filmstrips	37%	13%		50%	1					
8MM Cartridge Film					·					
8MM Films										
16MM Motion Pictures		50%		50%	1	1				
Overhead Transparencies	77%	2%	2%	19%	7	. 4	2		2	
Mounted Pictures	48%	32%		20%	1	2	2		.2	
Felt Pictures	83%	17%			3	1	1		1	
Electric Boards	50%	50%				1				• .
Graphic Materials (Charts & Posters)	72%	14%	14%			7			2	-
Audio Tape Recording Masters Made	58%	9%	33%		8	3				
Audio Tape Duplicators Made			100%						-	

TABLE X

SUMMARY OF RESPONSES OF SUPERINTENDENTS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF 250-499 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING PRODUCED	P	RCENT	e what Each Roduce:	3	NUMBER OF MATERIALS BEING PRODUCED ANNUALLY				Y	
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL						
	TEA	STU	AV		1-25	26-50	51-75	76-99	Over 100	
Photographs (B & W or Colored)	67%	33%			1		1		2	
35MM Slides	67%		33%		2	1				
Filmstrips					<u> </u>					
8MM Cartridge Film	100%				2					
8MM Films	100%				2					
16MM Motion Pictures				100%		1				
Overhead Transparencies	77%	4%	9%	10%	1	5	2	1	6	
Mounted Pictures	82%	7%	5%	6%	3	4		1 ·	2	
Felt Pictures	100%				3					
Electric Boards										
Graphic Materials (Charts & Posters)	76%	20%	4%		1	1	2	1	1	
Audio Tape Recording Masters Made	83%		10%	7%	6					
Audio Tape Duplicators Made				100%	1					

TABLE XI

SUMMARY OF RESPONSES OF SUPERINTENDENTS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF 500-1000 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING FRODUCED	PE	RCENT	E WHAT EACH RODUCES	3	NUMBER OF MATERIALS BEING PRODUCED ANNUALLY				
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL					1
	TEA	STU	AV DIR	HINO HINO	1-25	26-50	51-75	76-99	Over 100
Photographs (B & W or Colored)	54%	21%		25%	4	3	1	1	6
35MM Slides	70%	10%	20%		1	1		1	2
Filmstrips									
8MM Cartridge Film	34%		33%	33%		3			
8MM Films	100%					4			
16MM Motion Pictures		50%		50%		4			
Overhead Transparencies	75%		20%	5%	2	1	3	4	19
Mounted Pictures	77\$	9%	2%	12%	1	8	6	3	3
Felt Pictures	10 0%				2	1	1		
Electric Boards									
Graphic Materials (Charts & Posters)	86%	11%	1%	2%	3	5	4	1	8
Audio Tape Recording Masters Made	71%		20%	9%	8	7	2	1	
Audio Tape Duplicators Made	100%				1				

TABLE XII

SUMMARY OF RESPONSES OF SUPERINTENDENTS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF OVER 1000 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING PRODUCED	PF	RCENT	E WHAT EACH RODUCES	3	NUMBER OF MATERIALS BEING PRODUCED ANNUALLY				Y
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL					
	TE/	STC	STU AV BIR	AN HELO	1-25	26-5 0	51- 75	76-99	Over 100
Photographs (B & W or Colored)	24%	16%	19%	41%	1	1	1		4
35MM Slides	33%		27%	40%		1			4
Filmstrips					/				
8MM Cartridge Film	50%		50%		1				
8MM Films	100%				1	1			
16MM Motion Pictures			50%	50%		2			
Overhead Transparencies	61%	1%	9%	29%	2	2	5	2	5
Mounted Pictures	51%	2%	20%	27%	1	1	2	2	6
Felt Pictures	95%		-	5%	1	2	2		
Electric Boards	100%				1				
Graphic Materials (Charts & Posters)	77%	10%	11%	2%	1		2	1	7
Audio Tape Recording Masters Made	79%		14%	7%	5	1	2		
Audio Tape Duplicators Made									

II. RESULTS OF THE QUESTIONNAIRES SENT TO DISTRICT AUDIOVISUAL DIRECTORS

The first question asked the audiovisual directors concerning the existing production facilities in the school districts in the State of Washington was, "Is there a centralized audiovisual production center with designated space, equipment, and materials in your school district?" Figure 15 shows thirty-five of the fifty-seven responses to this question were answered no.

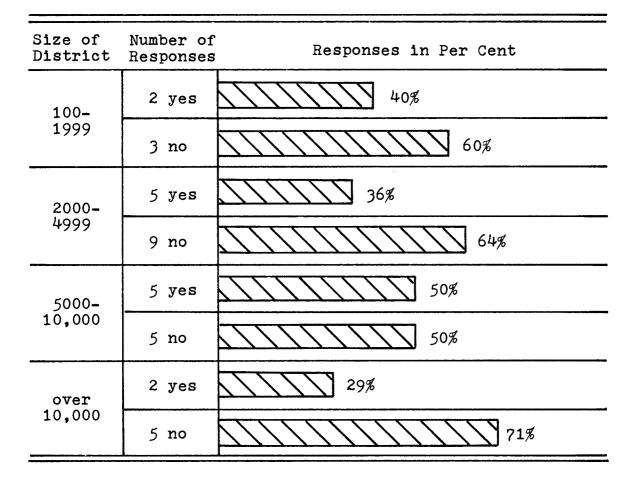
When the audiovisual directors were asked to describe the production center in their school district, twenty-two of the forty-four respondents indicated they had a production center serving an entire district and ten more said the production center they used served an entire county.

Figure 16, page 53, shows thirty-six audiovisual directors responded to the question, "Is your center large enough to handle all the equipment and work space necessary for a complete center?" Twenty-two or 61 per cent of the respondents said their center was not large enough.

Audiovisual directors were asked to tell how much space they had in their production center and of the twentyfive responses, 1,056 square feet was the average size of production centers in operation. Next, they were asked, "How much space they needed for a complete production

Size of District	Number of Responses	LACDONGAG IN VAR CANT
100-	1 yes	8%
1999	13 no	92%
2000 - 4999	9 yes	39%
	14 no	61%
5000-	6 yes	46%
10,000	7 no	54%
over	6 yes	86%
10,000	1 no	14%

RESPONSES INDICATING IF AUDIOVISUAL DIRECTORS HAVE A CENTRALIZED AUDIOVISUAL PRODUCTION CENTER IN THEIR SCHOOL DISTRICTS



RESPONSES INDICATING IF AUDIOVISUAL DIRECTORS FEEL THEIR PRODUCTION CENTER HAS ADEQUATE SPACE FOR OPERATION center?" Twenty-three audiovisual directors responded to this question and it averaged out to 2,250 square feet.

Figure 17 shows 82 per cent of the production centers were in a central location in relation to the schools of the district.

	Number of Responses	Responses in Per Cent
100-	2 yes	67%
1999	1 no	33%
2000-	12 yes	71%
4999	2 no	29%
5000 -	7 yes	78%
10,000	2 no	22%
over	6 yes	86%
10,000	1 no	14%

FIGURE 17

RESPONSES SHOWING WHETHER THE PRODUCTION CENTER IS IN A CENTRAL LOCATION IN RELATION TO THE SCHOOLS OF THE DISTRICT

Figure 18 shows nineteen of the thirty-one buildings provided adequate space for an audiovisual office, stored materials, and a production workshop that was related in size to the needs of the school district.

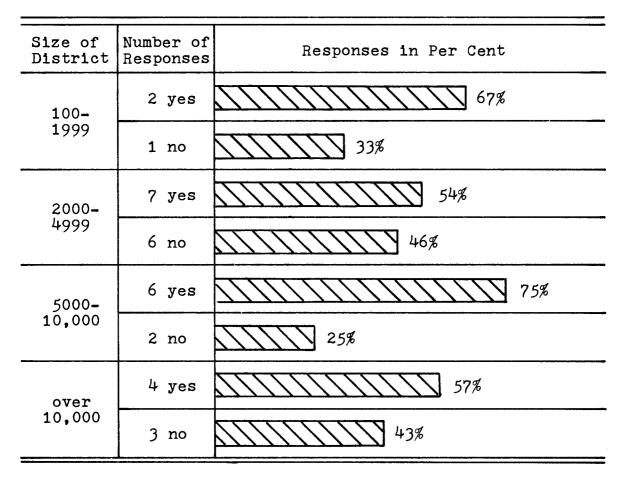


FIGURE 18

RESPONSES INDICATING IF THE BUILDING PROVIDES FOR OFFICE SPACE, STORED MATERIALS AND A PRODUCTION WORKSHOP WHICH IS RELATED IN SIZE TO THE NEEDS OF THE SCHOOL SYSTEM

Table XIII indicates the audiovisual directors produced most of the materials in the production center. Hired help who work in the production center was the number two producer of materials.

TABLE XIII

		Size of	District	
Producer	100 - 1999	2000 - 4999	5000- 10,000	over 10,000
Audiovisual Director	0	8	3	2
Teacher	2	6	1	1
Teacher with the aid of the Audiovisual Director	1	8	1	0
Teacher's Aide with the help of the Audiovisual Director	3	5	1	1
Hired help who works in the production center	2	2	6	2
Other	1	3	1	4

RESPONSES INDICATING WHO PRODUCED MOST OF THE MATERIALS IN THE CENTER

The audiovisual directors were asked how many hours per week they worked in the production center. The average was eighteen hours per week, ranging from two to fifty hours per week for the twenty-eight audiovisual directors who answered this question. The next question was, "How many hours per week is the center open?" Thirty-three audiovisual directors responded to this question and the centers were open an average of thirty-eight hours a week with a range from seven to sixty-six hours per week. Twelve of the audiovisual directors reported their centers were open forty hours a week.

Table XIV shows when the production center was used most extensively by the teachers as reported by the audiovisual directors. This same question was asked the district superintendents and both groups indicated that the center was used most extensively by the teachers after school than any other time.

TABLE XIV

Times when preparation facility is used most extensively	S	Over- all			
	100- 1999	2000 - 4999	5000- 10,000	over 10,000	Rank
After school	3	7	5	7	1
During their planning period	3	7	1	0	2
Before school	3	4	1	0	3
Other	1	1	1	1	4
Do not know	1	2	0	0	5
During the noon hour	0	0	0	0	6

RESPONSES INDICATING WHEN TEACHERS USE THE PRODUCTION CENTER MOST EXTENSIVELY

The audiovisual directors were asked what could facilitate the development of better local production programs. The respondents were asked to rank in order of importance: (1) the greatest, (2) second, and (3) third. These responses were then weighted: (1) responses receiving three points, (2) responses receiving two points, and (3) responses given one point. All the statements were then totaled and the results can be found in Table XV. Audiovisual directors felt they would need more space and facilities for production if they were to have a better production program. This was their number one response. The superintendents felt that more interest by the teachers was necessary if their production programs were to prosper.

Thirty-nine of the forty-seven audiovisual directors said no when asked, "Do you feel the audiovisual director and/or his staff should make all the materials for the teachers?"

Table XVI, page 60, illustrates there were more clerks working in the production center than any other type of trained help. Only three photographers were reported working in the production center and they were employed by school districts having a student enrollment over ten thousand.

The audiovisual directors were asked to indicate in what areas their center staff members were competent. A

TABLE XV

RESPONSES INDICATING WHAT COULD FACILITATE THE DEVELOPMENT OF A BETTER PRODUCTION PROGRAM

	U t	Over- all			
	100- 1999	2000 - 4999	5000- 10,000	over 10,000	Rank
Provide more space and facilities for production	15	22	7	7	1
Provide more equipment	10	26	6	0	2
Provide more specialized help	3	9	11	13	3
More interest by the teachers	10	13	2	3	4
Provide more materials	2	18	5	6	5
Provide more in-service training	4	9	8	4	6
Provide more administrative support	3	7	9	6	7
Better accessibility	6	8	6	3	8
More time to make the materials	6	6	5	1	9
Other	0	0	3	0	10

TABLE XVI

RESPONSES INDICATING WHAT TRAINED HELP WORKED IN THE PRODUCTION CENTERS

Trained Help	S	Size of District									
Trained Help	100 - 1999	2000 - 4999	5000- 10,000	over 10,000	all Rank						
Clerk	2	2	4	5	1						
Part time help	2	3	1	4	2						
Teacher's Aide	4	2	2	1	3						
Graphic Artist	1	0	2	2	4						
Other	0	2	1	1	5						
Photographer	0	0	0	3	6						

majority reported their members were most competent in cataloging, indexing, and filing. Table XVII shows they were least competent in specimen and model preparation.

TABLE XVII

RESPONSES INDICATING THE AREAS WHERE AUDIOVISUAL DIRECTORS FELT THEIR CENTER'S STAFF MEMBERS ARE COMPETENT

Amon of Competency	S:	Size of District								
Area of Competency	100 - 1999	2000 - 4999	5000- 10,000	over 10,000	all Rank					
Cataloging, indexing, and filing	6	7	5	6	1					
Recording	3	9	6	4	2					
Servicing of equip- ment and materials	1	9	4	6	3					
Poster and classroom art skills	4	7	4	2	4					
Photographic	0	2	4	5	5					
Specimen and model preparation	4	2	2	0	6					

Table XVIII shows what financial arrangements were in effect to cover the cost of production supplies. In most school districts materials were supplied free to teachers.

Eight of fifteen school districts reported they have a list of the production costs of the items produced in their production center.

Twenty-six of the thirty-four audiovisual directors responding to the question, "Should teachers make their own

TABLE XVIII

RESPONSES SHOWING WHAT FINANCIAL ARRANGEMENTS ARE IN EFFECT TO COVER THE COST OF PRODUCTION SUPPLIES

Financial Arrangements		ize of D	istrict		Over- all	
Financial Allangements	100 - 1999	2000 - 4999	5000- 10,000	over 10,000	Rank	
The materials are free to teachers	4	11	8	3	1	
The department re- questing materials is charged	1	3	2	1	2	
Other	1	2	0	2	3	
The teachers pay for the materials	0	0	0	0	4	

materials?," responded yes. Most audiovisual directors felt the teachers should make their own materials and if any problems arise, the director or his staff should then help the teacher.

Figure 19 shows thirty-four of thirty-six or 94 per cent of the audiovisual directors said yes when asked if their teachers needed instruction in the operation of production equipment.

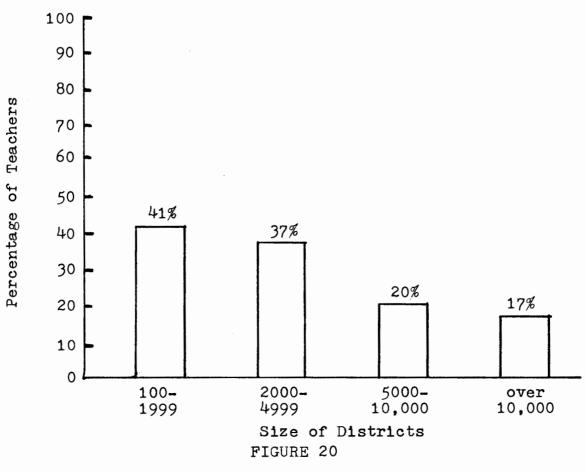
Size of District	Number of Responses	Responses in Per Cent
100-	10 yes	91%
1999		9%
2000-	16 yes	94%
4999	1 no	5%
5000 -	12 yes	100%
10,000	0 no	
over	6 yes	100%
10,000	0 no	

FIGURE 19

RESPONSES SHOWING WHETHER TEACHERS NEED INSTRUCTION IN THE OPERATION OF PRODUCTION EQUIPMENT

When the audiovisual directors were asked if provision was made for special training classes in production techniques for teachers, only twenty-four of the forty-six directors responding answered yes.

Figure 20 illustrates a very interesting relationship between sizes of school districts and the percentage of teachers making use of the production centers. Audiovisual directors of the smaller school districts reported a higher percentage of their teachers used the production center than teachers from the larger school districts.



PERCENTAGE OF TEACHERS THAT MAKE USE OF THE PRODUCTION CENTER

Thirty-three of the forty-three audiovisual directors said yes when asked, "Do teachers frequently suggest new instructional materials to fill their teaching needs?"

The audiovisual directors were asked if students help prepare learning materials. Figure 21 shows an interesting response in that most student help was used in schools with an enrollment of two thousand to ten thousand students.

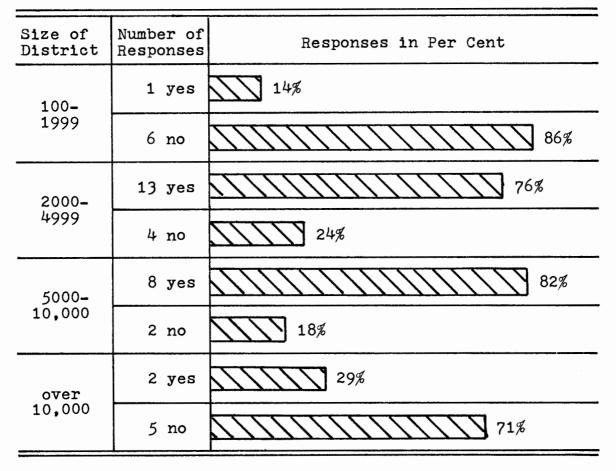


FIGURE 21

RESPONSE SHOWING PERCENTAGE OF STUDENTS WHO HELP PREPARE LEARNING MATERIALS Audiovisual directors not having a central production center were asked if any production was being done in any individual buildings. They reported more production work was done in the high school buildings than any of the other buildings in the system. Table XIX shows in which buildings production work was being done.

TABLE XIX

RESPONSES	SHOW	/ING II) WE	HICH	BUILDIN	IGS	PRODUCTI	ON	WORK	IS
DONE I	WHEN	THERE	IS	NO	CENTRAL	PRC	DUCTION	CEN	ITER	

	Size of District								
Buildings	100 - 1999	2000 - 4999	5000- 10,000	over 10,000					
High School	4	7	6	4					
Junior High School	2	6	6	3					
Elementary School	5	5	5	1					
One in every school	4	6	2	0					

Table XX, page 68, shows where the production equipment is located as reported by the audiovisual directors. Most of the production equipment was located at the building level in school districts under two thousand students, but school districts with a student enrollment over two thousand reported their production equipment was located at the district level. It is interesting to note that of the seven

school districts over ten thousand enrollment, that responded to the questionnaire, there were fourteen video tape recorders reported. Ten of the recorders were Ampex and the other four were Sony. The audiovisual directors indicated there was very little equipment located at the county level, whereas, the superintendents reported there was a considerable amount of production equipment located at the county level.

Table XXI, page 69, Table XXII, page 70, Table XXIII, page 71, and Table XXIV, page 72, indicate the types of materials produced annually and who produced them as reported by the audiovisual directors. In the smaller school districts, teachers produced most of their own materials. In school districts with an enrollment over five thousand, the audiovisual directors did most of the photography work but the teachers made most of their own audio tape masters. There were more overhead transparencies produced than any other item and one district reported they produced over eleven thousand transparencies annually.

TABLE XX

AUDIOVISUAL DIRECTORS RESPONSES INDICATING PRODUCTION EQUIPMENT AVAILABLE TO TEACHERS AT THE BUILDING, DISTRICT, AND COUNTY LEVELS

·		BUILD	ING		<u></u>	DISTR	ICT	·		COUN	TY	
equipment	100- 1999	2000- 4999	5000- 10,000	over 10,000	100- 1999	2000- 4999	5000- 10,000	over 10,000	100- 1999	2000- 4999	5000- 10,000	over 10,000
MOUNTING												
Dry mounting press	5	7	4	4	1	9	7	7	3	8	5	2
Laminating material	6	8	4	4	2	9	7	5	1	5	6	1
Mounting cloth	1	3	2	2	1	9	5	6	1	5	4	1
Wet mounting	1	4	3	2		1	3	2	ļ	3	2	I
LETTERING									ł			
Mech. lettering devices	3	4	2		2	8	8	7	1	2	3	1
Cut-out letters	9	12		3	1	3	3	4	1	1	3	1
Transfer letters	2	5	2	1	2	3	7			2	4	1
Stencils	9	12	7	3	1	4	7	5		1	3	1
Felt-point pens	12	17	10	5	3	7	8	6		2	4	1
Primary or Bulletin tpwtr.	10	19	10	5	3	6	7	6	Į	2	3	1
PRODUCTION AND REPRODUCTION												
Mimeograph	11	18	9	5	2	7	9	5		- 4	1	1
Ditto	12	20	13	5	, 2	9	6	6	1	3	1	1
Diazo	2	1	2	1		6	4	- ?	1	5	3	2
Silk Soreen	4	6	3	2	1			2	1	1	<u> </u>	
Multilith	2	2	1		3	2	- 4		1	12		·
Xerox Thermo copier	11	18	$\frac{1}{13}$	5	11	9		2			2	2
Electronic stencil cutter	2		<u>-</u>		2		<u> </u>	2	1		t	1
PHOTOGRAPHÝ	<u>6</u>								t			
35mm SLR camera			1	3	2	9	7	6	}	3	2	1 1
8mm camera	2	2	1	2			4	ž	1 1			
16mm camera		3	*	2	1	6	2	5	<u> </u>	2		1
4x5 camera	2	2	1	2	3	7	3	6	1	2		
Polaroid camera	2	1	3	2	1	8	5	7				1
Darkroom	4	9	3	4	5	9	2	5	1			
Copy equipment	2	5		2		5	5	7	1	3	1	1
RECORDING						£						
Audio tape recorders	13	20	11	5	13	9	6	7	1	2	2	1
Audio tape duplicators		2				3	5	7	1	4	2	2
Video tape recorders							2	14	1	1		
Indicate make and model						1	3	14	<u> </u>	1		1

TABLE XXI

SUMMARY OF RESPONSES OF AUDIOVISUAL DIRECTORS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF 100-1999 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING PRODUCED	PE	RCENT	e what Each Roduces	3	NUMBER OF MATERIALS BEING PRODUCED ANNUALLY				
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL					
	TTEA	STU	AV DIR	OTH PER	1-25	26-50	51-75	76-99	Over 100
Photographs (B & W or Colored)	50	50			1	1			1
35MM Slides	100				1				1
Filmstrips									
8MM Cartridge Film									
8MM Films					1				
16MM Motion Pictures	100					1			1
Overhead Transparencies	81	9		10		4			2
Mounted Pictures	41	22	30	7	1		1	2	1
Felt Pictures	93	3ź		3 1	1		1		
Electric Boards									
Graphic Materials (Charts & Posters)	45	15		40	1	1	2		2
Audio Tape Recording Masters Made	70	2 1/2	25	2	2		1		
Audio Tape Duplicators Made				100	1				

TABLE XXII

SUMMARY OF RESPONSES OF AUDIOVISUAL DIRECTORS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF 2000-4999 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING PRODUCED	PE	RCENT	E WHAT EACH RODUCES	3	NUMBER OF MATERIALS BEING PRODUCED ANNUALLY				
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL					
	TE	ST	AV	58	1-25	26-50	51-75	76-99	Over 100
Photographs (B & W or Colored)	28	21	27	24		1	1		9
35NM Slides	40		37	23	1	1	1		8
Filmstrips	40		58	2	4				1
6MM Cartridge Film	90	10			2				
8MM Films	60	3	37		6				
16MM Motion Pictures	63		37		3	1			
Overhead Transparencies	64	1	23	12			2		15
Mounted Pictures	51		31	18	1		3		10
Felt Pictures	75		5	20	1	1		1	1
Electric Boards	99	1			2				
Graphic Materials (Charts & Posters)	70	4	23	3	2	2	3		3
Audio Tape Recording Masters Made	58	4	31	7	6	2	2	1	5
Audio Tape Duplicators Made	40		49	11	1	2	1		4

TABLE XXIII

SUMMARY OF RESPONSES OF AUDIOVISUAL DIRECTORS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF 5000-10,000 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING PRODUCED	Pi	RCENT	E WHAT EACH RODUCES	3	NUMBER OF MATERIALS BEING PRODUCED ANNUALLY				
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL					
	TEA	STU	AV DIF	OTH	1-25	26-50	51-75	76-99	Ove r 100
Photographs (B & W or Colored)	16	29	19	36		2		1	6
35MM Slides	29	6	49	16		1			5
Filmstrips			100		2				
EMM Cartridge Film			100		1				
SMM Films	5		95		2				
16MM Motion Pictures			100		1				
Overhead Transparencies	49		13	38		1			9
Mounted Pictures	37		16	47		,			9
F elt · Pictures	100				1				1
Electric Boards	100				2				
Graphic Materials (Charts & Posters)	38	10	17	35					7
Audio Tape Recording Masters Made	74		15	11	3	1	1		2
Audio Tape Duplicators Made	17		18	65	1		· .		6

TABLE XXIV

SUMMARY OF RESPONSES OF AUDIOVISUAL DIRECTORS IN SCHOOL DISTRICTS WITH AN ENROLLMENT OF OVER 10,000 CONCERNING THE TYPES, EXTENT, AND PRODUCERS OF AUDIOVISUAL MATERIALS

ITEM BEING PRODUCED	PE	RCENT	E WHAT EACH RODUCES	3		NUMBER OF MATERIALS BEING PRODUCED ANNUALLY				
	TEACHERS	STUDENTS	AV DIRECTOR	OTHER PERSONNEL						
	E	ST	AV	E O	1-25	26-50	51-75	. 76-99	Over 100	
Photographs (B & W or Colored)			80	20				1	5	
35MM Slides	39		59	2					7	
Filmstrips					2					
8MM Cartridge Film			50	50	4					
8MM Films			50	50	4					
16MM Motion Pictures			50	50	3					
Overhead Transparencies	10		90						7	
Mounted Pictures	3		97			1			6	
Felt Pictures										
Electric Boards										
Graphic Materials (Charts & Posters)	34	. *	33	33	1	1	1		2	
Audio Tape Recording Masters Made	58		22	20	1	1			6	
Audio Tape Duplicators Made	2		68	30					7	

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND SUGGESTIONS FOR FURTHER STUDY

I. SUMMARY

This study was undertaken to determine the nature, scope, and operation of production centers in the school districts of the State of Washington with the purpose of establishing guidelines for the development and/or improvement of production centers.

A statement of the problem and an explanation of the scope for this study are the most significant portions of Chapter I. The purpose of this study was: (1) conduct a survey in Washington State's public schools to determine what production services are available and being utilized by the respective schools; (2) compile and organize the data from the survey; (3) use the data from the survey for background information in drawing up recommendations for production programs for schools of various sizes; and (4) circulate the results and recommendations to the school systems in Washington who have requested a copy of the results of the survey.

The literature pertaining to local production was reviewed in Chapter II. Among the most significant materials reviewed were the proposed "standards" recommended by the Joint Washington State Association of School Librarians and Washington Department of Audiovisual Instruction Standards Committee in the State of Washington and "guidelines" the Department of Audiovisual Instruction tentatively established for local production programs in the school districts.

Chapter III explains the: (1) development of the two questionnaires--one for district audiovisual directors and one for district superintendents of schools who had no audiovisual director; (2) distribution of the questionnaires; and (3) analysis of the returns. This chapter also explains how the school districts were categorized into units according to student enrollment.

The results of the questionnaires were presented in Chapter IV. Questionnaire replies were received from 116 superintendents and fifty-eight audiovisual directors with students enrollments of at least one hundred. The first section of Chapter IV analyzes the superintendents responses and the second section explains the audiovisual directors responses.

II. CONCLUSIONS

Superintendents and audiovisual directors both indicated their teachers needed more training in production procedures. Only a few school districts provided special

training classes in production techniques. Consequently, it would seem that teacher training programs are not meeting the needs of our teachers.

The responses indicated most of the school districts met the proposed Washington state standards, but only a few school districts met the national Department of Audiovisual Instruction guidelines. Some of the school districts which met the national guidelines were: Spokane Public Schools, Puyallup Public Schools, Highline Public Schools, Renton Public Schools, and Kent Public Schools.

A vast majority of the superintendents felt there was no need for a full time audiovisual director. However, many of the superintendents indicated they did not have enough help to produce all the materials the teachers requested. It would appear that the superintendents felt that clerical or office help could do the job of an audiovisual director or else they were trying to save money by not hiring an audiovisual director.

A majority of superintendents responded that teachers have not asked for a production center and yet they reported that an overwhelming majority of the teachers use locallyproduced materials and suggest new instructional materials to fill their needs. Even though there was such an overwhelming majority, only slightly more than one-half of the superintendents still felt their teachers would use a

production center if one were available. According to the superintendents the biggest need for a centralized production center was in schools of over one thousand enrollment.

There was a larger percentage of production centers reported from the large school districts but a smaller percentage of teachers from the large school districts used their production center than teachers from the small school districts. Yet the audiovisual directors from these large districts indicated they felt teachers should produce their own materials. Is the difference between teacher usage in large and small districts due to the lack of space or the lack of qualified help which both size districts reported as a problem? Another consideration might be that teachers would probably have to travel greater distances in large districts to reach the production center.

A majority of the superintendents expressed a willingness to cooperatively buy and use some of the more expensive audiovisual equipment. This indicates an opportunity for the intermediate school districts.

Most of the audiovisual directors reported that materials for local production projects are furnished without charge to teachers or the department requesting materials is charged. An encouraging finding is that none of the audiovisual directors reported that teachers were required to pay for the materials used.

III. RECOMMENDATIONS

The following recommendations were determined after analyzing the results of the questionnaires.

- Every school in the State of Washington should have designated space, equipment and materials so teachers and students can produce many of the instructional materials they need.
- School districts should go together to buy and use some of the more expensive audiovisual equipment.
- 3. Every school district should make provisions for having inservice training and/or workshops for improving the production capabilities of their teachers.
- 4. Teachers should be given the opportunity to assist in selecting new instructional materials.

The following recommendations were determined after analyzing the guidelines suggested in the literature reviewed.

- The State of Washington should revise their production standards to conform more closely to the national guidelines.
- 2. The Washington State Department of Education should set the standards for production facilities in the school districts instead of having each school establish their own standards. Many administrators

and teachers do not realize the full potential of a local production program and cannot honestly evaluate their own production facilities and upgrade them when necessary, as was recommended by the Joint (WSASL-WDAVI) Committee.

- 3. Within any district and county production program provisions should be made to perform the following types of activities: mounting, photography, duplicating, lettering, and recording.
- 4. Students should be given the opportunity to produce instructional materials they would use in the classroom.
- 5. Every school district should have an audiovisual coordinator who has had formal training in audiovisual skills.

After analyzing the related literature and the responses from the questionnaires, it would be impossible to recommend a program of local production that would meet the needs of all the public schools in the State of Washington. Some production programs are operated only at the building level, others at the district level, and still others at the county level. Confronted with the problem that each individual school system has its own needs in terms of locally produced materials, the writer has attempted to establish what equipment and materials are needed for an adequate building, district, and county production center. These recommendations are based on recommended state and national standards and suggestions of writers in this field as reported in the review of literature as well as data gathered in the questionnaires that were distributed. SUPPLIES EQUIPMENT Recommended Equipment and Materials for a Building Production Center Dry mount press $(18\frac{1}{2}" \times 15\frac{1}{2}")$ Dry mount tissue Tacking iron Chartex Laminating film Weights Transparency film (assort-Paper cutter Thermo-copying machine ment) Clear acetate Ditto machine Typewriter (standard and Drawing supplies (felt pens, pencils, pens, erasers, primary) Lettering guides (various crayons, and India ink) sizes) Transparency mounts T-Square, rulers, scissors, Tagboard (various weights and sizes) and a cutting knife Construction paper, butcher Opaque projector paper, and ditto paper Instamatic camera

Recommended Equipment and Materials for a District Production Center

MOUNTING

Dry mount press (26" x 32	2") Dry mount tissue
Tacking iron	Mounting cloth
Weights	Laminating film
Paper cutter	
Xacto knife and blades	
	PHOTOGRAPHY
Darkroom	Film and chemicals neces-
Copy stand	sary to develop and print
35mm SLR camera	all types of film
8mm camera	
16mm camera	
4x5 camera	
$2\frac{1}{4}x2\frac{1}{4}$ camera	
Polaroid camera	
Enlarger	
Light table	
Miscellaneous equipment	
	DUPLICATING
Ditto machine	Necessary paper and film to
Thermo copier	produce or reproduce all
Diazo	types of materials

Mimeograph

Photo machine

LETTERING

Mechanical lettering devices	Rub-on letters
Drafting table	Cut-out letters
T-Squares	Paste-on letters
Stencils	Clear acetate
	Tagboard
	Ink (various colors)
	Miscellaneous supplies
RECORD	ING

Sound proof room

Audio tape recorder

weights)

Recording tape (various

Audio tape duplicators

Microphone equipment

Record player

Recommended Equipment and Materials for a County Production Center

The standards for a county production center should be the same as for a district production center.

IV. SUGGESTIONS FOR FURTHER STUDY

There is a need for additional research which might help production programs now in existence or programs that will be started in the future. Problems that might be alleviated by research and exploration are: (1) a study of the production facilities in the private schools in the State of Washington; (2) a similar study comparing production facilities in Washington with another state or states; and (3) further study is needed to determine why most of the superintendents surveyed felt there was no need for an audiovisual director. With billions of dollars being spent annually for equipment and materials, why are superintendents reluctant to employ audiovisual directors to help in handling the problems produced by this accelerated buying program? BIBLIOGRAPHY

BIBLIOGRAPHY

- 1. Brown, James W., and Kenneth Norberg. <u>Administering</u> <u>Educational Media</u>. New York: McGraw Hill Book <u>Company</u>, 1965. 357 pp.
- Erickson, Carlton W. H. <u>Administering Audio-Visual</u> <u>Services</u>. New York: The MacMillian Company, 1959. 479 pp.
- 3. Faris, Gene, Harvey Frye, and John Moldstad. <u>Improving</u> <u>the Learning Environment</u>. Washington: United States Government Printing Office, 1963. 148 pp.
- 4. Faris, Gene. "Tentative Guidelines for Audiovisual Personnel and Equipment," <u>Audiovisual Instruction</u>, 10:201-4, March, 1965.
- 5. Hyer, Anna L. "Setting Quantative Standards," <u>Audio-</u> visual Instruction, 6:506-10, December, 1961.
- 6. Kemp, Jerrold E. <u>Planning and Producing Audiovisual</u> <u>Materials.</u> San Francisco: <u>Chandler Publishing</u> <u>Company, 1963.</u> 169 pp.
- 7. Lawler, William J., and Eugene Edwards. "The Instructional Resources Center, Its Relationship to the System-Wide Program," <u>Audiovisual Instruction</u>, 7:545-46, October, 1962.
- 8. Moldstad, John, and Harvey Frye. "A Complete Materials Center," Overview, pp. 48-49, May, 1961.
- 9. <u>Program for the Learning Resources Center</u>. Standards for Integrating Library and Media Services in the Elementary and Secondary Schools. Proposed by the Joint Washington State Association of School Librarians and Washington Department of Visual Instruction Committee, Spring, 1968. 11 pp.
- 10. Schmidt, William D. "Let's Get Started," <u>Resources</u> for Teaching and Learning, 2:10-11, October, 1965.
- 11. Tiemann, Ernest F. Local Production Techniques, Visual Instruction Bureau, The University of Texas, Austin, Texas.

APPENDIX

QUESTIONNAIRE CONCERNING THE EXISTING PRODUCTION FACILITIES IN THE SCHOOL DISTRICTS OF THE STATE OF WASHINGTON

Name	Position
Scho	ol District
Addr	ess
1.	Are there provisions made for the local production of audiovisual materials in any of the schools in your district? Yes No
	Please check below the buildings where you have a pro- duction center. A. Elementary B. Junior High C. Secondary
2.	Is there a need in your school district for a central- ized production center? Yes No
3.	Have teachers asked for a production center within their buildings? Yes No
4.	If you had a production center in your school district, do you feel your teachers would use the facilities to any great extent? Yes No
5.	Is there a need for a full time Audiovisual Director in your school district? Yes No
6.	Do your teachers need instruction in the operation of production equipment? Yes No
7.	Is provision made for the organization of special train- ing classes in production techniques for the teachers in your district? Yes No
8.	Are your teachers competent in the following audiovis- ual skills? Please check those areas where you feel they are competent. A. Photographic B. Tape recording C. Poster and classroom art skills C. Poster and model preparations E. Servicing of equipment and materials F. Cataloging, indexing, and filing

- Do you feel you have enough office help to produce all 9. the materials the teachers request? Yes No
- Do your teachers use locally-produced materials? 10. Yes No
- Do they frequently suggest new instructional materials 11. to fill their teaching needs? Yes No
- Do students help prepare learning materials? 12. Yes No
- Check each statement that applies to your school dis-13. trict concerning audiovisual coordination at the building level.
 - A. There is a trained coordinator for each building.
 - B. Adequate time is given to coordinators to carry out their duties.
 - C. Teachers know who the coordinator is and his general duties.
 - D. The teachers use the services of the building coordinator.
 - E. There are trained student assistants to help teachers with mechanical equipment, if needed.
 - F. There is a check-out sheet in each building for equipment so that it can be easily located.
 - G. Catalogs are readily available for teacher use.
 - H. Equipment is well serviced.
 - I. Courier service is available.
- 14. Do you feel there is a need for audio tape duplicators at the school district level? Yes No
- Do you feel several school districts (i.e., intermediate 15. districts) should go together to buy and use some of the more expensive equipment, such as, tape duplicators and large transparency reproduction machines? Yes No
- If teachers use your production center, when do they 16. use it most extensively?
 - ____ A. Before school
 - B. During the teacher's planning period
 - C. During the noon hour
 - D. After school E. Other F. Do not know

- Which of the following could facilitate the development 17. of better local production programs? Rank in order of importance: (1) the greatest, (2) second, and (3) third. ______A. Provide more equipment

 - B. Provide more materials
 - C. Provide more in-service training

 - C. Provide more in-service training
 D. More administrative support
 E. More interest by the teachers
 F. Provide more time to make the materials
 G. Provide more space and facilities for production
 H. Provide more specialized help
 I. Better accessibility (how easy and quick is it for teachers to get to the production center)

 - for teachers to get to the production center) J. Other

If a copy of the results of this survey is desired, please check the following square.

May your school district be mentioned specifically in this study? Yes No

Please complete the tables on the following two pages NOTE: regardless of whether or not you have a formally organized production program.

What audiovisual equipment do you have available to teachers in your school district? (please place a check mark in the appropriate blanks.)

EQUIPMENT	BUILDING LEVEL	DISTRICT LEVEL	COUNTY LEVEL
MOUNTING			
Dry mounting press	1	T	
Laminating material			
Mounting cloth			
Wet mounting			
LETTERING			
Mech. lettering devices			·
cut-out letters			
transfer letters			
stencils			••••••••••••••••••••••••••••••••••••••
felt-point pens			
Primary or Bulletin typewriter			
PRODUCTION AND REPRODUCTION			
Mimeograph			
Ditto			
Diazo			
Silk Screen			
Multilith			
Xerox			
Thermo copier			
Electronic stencil cutter		l	
PHOTOGRAPHY			
35mm single lens reflex camera			
8mm camera			
16mm camera			
4 x 5 camera			
Polaroid camera			
Darkroom			
Copy equipment			
RECORDING			
Audio tape recorders			
Audio tape duplicators			
Video tape recorders			
Indicate make and model		1	

Indicate the type and quantity of materials produced

in your school district and who produces them

ITEM BEING PRODUCED	INDICATE WHAT PERCENT EACH GROUP PRODUCES			NUMBER OF MATERIALS BEING PRODUCED ANNUALLY					
	TEACHERS	STUDENTS STUDENTS DIRECTOR OTHER FERSONNEL							
	ឝ	ζΩ,	A.	25	1-25	26-50	51-75	76-99	Over 100
Photographs (B & W or Colored)									
35MM Slides									
Filmstrips									
8MM Cartridge Film									· · · · · · · · · · · · · · · · · · ·
8MM Films									
16MM Motion Pictures									
Overhead Transparencies								с. к.	
Mounted Pictures									
Felt Pictures									
Electric Boards									
Graphic Materials (Charts & Posters)									
Audio Tape Recording Masters Made									
Audio Tape Duplicators Made									

QUESTIONNAIRE CONCERNING THE EXISTING PRODUCTION FACILITIES IN THE SCHOOL DISTRICTS OF THE STATE OF WASHINGTON

Name	Position
Scho	ol District
Addr	ess
1.	Is there a centralized audiovisual production center with designated <u>space</u> , <u>equipment</u> , and <u>materials</u> in the school district listed above? Yes <u>No</u>
2.	Check the statement(s) below that best describes the production center in your school district. A. A production center serving one building. B. A production center serving an entire school district. C. A production center serving an entire county. D. Other
<u>If</u> y ques tabl	ou do not have a production center, please answer any tions that are applicable and also complete the two es.
3.	Is the center large enough to handle all the equipment and work space necessary for a complete center? Yes No
4.	How much space do you have at the present time in your center?sq. ft.
5.	How much space would you recommend for a complete pro- duction center?sq. ft.
6.	Is the center in a central location in relation to the

- schools of the district? Yes No_____
 7. Is the production center located in the same building
- with other administrative or supervisory offices? Yes____ No____
- 8. Does the building provide for office space, stored materials and a production workshop which is related in size to the needs of the school system? Yes____ No____

- 9. Who produces most of the materials in the center?
 - A. Audiovisual Director
 - B. Teacher
 - C. Teacher with the aid of the AV Director

 - C. Teacher with the aid of the AV Director D. Teacher's Aide with the help of the AV Director E. Hired help who works in the production center F. Other (identify)
- How many hours per week does the AV Director work in 10. the production center? hrs.
- How many hours per week is the center open? 11. hrs.
- When is the center used most extensively by teachers? 12. A. Before school
 - B. During their planning period C. During the noon hour D. After school E. Other F. Do not know
- Which of the following could facilitate the development 13. of better local production programs? Rank in order of importance: (1) the greatest, (2) second, and (3) third.
 - A. Provide more equipment
 - B. Provide more materials

 - B. Provide more materials
 C. Provide more in-service training
 D. Provide more administrative support
 E. More interest by the teachers
 F. More time to make the materials
 G. Provide more space and facilities for production
 H. Provide more specialized help
 I. Better accessibility (how easy and quick is it for teachers to get to the production center) J. Other
- Do you feel the Audiovisual Director and/or his staff 14. should make all the materials for the teachers? Yes No

What trained help do you have in your production center? 15. A. Graphic Artist

- B. Photographer
 C. Clerk
 D. Teacher's Aide
 E. Part time help (please elaborate)
 F. Other

- 16. Please check the areas where you feel your center's staff members are competent.
 - A. Photographic
 - B. Recording
 - C. Poster and classroom art skills
 - D. Specimen and model preparation
 - E. Servicing of equipment and materials F. Cataloging, indexing, and filing
- 17. What financial arrangements are in effect to cover the cost of production supplies?
 - A. The teachers pay for the materials.
 - B. The materials are free to the teachers.
 - C. The department requesting the materials is charged.
 - D. Other (please elaborate)
- If you charge, is there a list of the production costs of the items produced in your production center? 18. Yes No
- Should teachers make their own materials? 19. Yes No
- Do the teachers in your school district need instruction 20. in the operation of production equipment? Yes___ No___
- 21. Is provision made for the organization of special training classes in production techniques for the teachers in your district? Yes No
- What percentage of your teachers make use of your pro-22. duction center? per cent
- Do teachers frequently suggest new instructional 23. No materials to fill their teaching needs? Yes
- 24. Do students help prepare learning materials? Yes No
- 25. Are there any unique services or special characteristics of your program?

- 26. If you do not have a central production center, is any production work done in your individual buildings? Yes No
 - A. High School
 - B. Junior High School
 - C. Elementary School
 - D. One in every school

If a copy of the results of this survey is desired, please check the following square.

May your school district be mentioned specifically in this study? Yes____ No____

NOTE: Please complete the tables on the following two pages regardless of whether or not you have a formally organized production program. What audiovisual equipment do you have available to teachers in your school district? (please place a check mark in the appropriate blanks.)

EQUIPMENT	BUILDING LEVEL	DISTRICT LEVEL	COUNTY LEVEL
MOUNTING			
Dry mounting press		T	
Laminating material			
Mounting cloth			
Wet mounting		1	· ·
LETTERING			•
Mech. lettering devices]	
cut-out letters			
transfer letters			
stencils			
felt-point pens			
Primary or Bulletin typewriter			
PRODUCTION AND REFRODUCTION	•		
Mimeograph			
Ditto			
Diazo			
Silk Screen			
Multilith			
Xerox			ļ . <u>.</u>
Thermo copier			
Electronic stencil cutter			J
PHOTOGRAFHY			<u> </u>
35mm single lens reflex camera			
8mm camera			
16mm camera			
4 x 5 camera			
Polaroid camera			
Darkroom	·		· .
Copy equipment		<u></u>	l
RECORDING			
Audio tape recorders			
Audio tape duplicators			
Video tape recorders			1 · ·
Indicate make and model		1	<u> </u>

Indicate the type and quantity of materials produced

in your school district and who produces them

ITEM BEING PRODUCED	INDICATE WHAT PERCENT EACH GROUP PRODUCES			NUMBER OF MATERIALS BEING PRODUCED ANNUALLY						
	TEACHERS	STUDENTS	STUDENTS AV DIRECTOR	OTHER PERSONNEL						
	E E	S	AV	5 咒	1-25	26-50	51-75	76-99	Over 100	
Photographs (B & W or Colored)										
35MM Slides										
Filmstrips					,					
8MM Cartridge Film										
8MM Films						l				
16MM Motion Pictures										
Overhead Transperencies										
Mounted Pictures									•.	
Felt Pictures				-						
Electric Boards										
Graphic Materials (Charts & Posters)						1.				
Audio Tape Recording Masters Made										
Audio Tape Duplicators Made										

108 East 9th Avenue Ellensburg, Washington 98926 April 10, 1968

Dear Sir:

Enclosed you will find a questionnaire concerning existing production facilities in the State of Washington. This statewide study is being conducted as part of the requirements for a Master's degree in Audiovisual at Central Washington State College.

The purpose of this study is to inventory the production facilities in the school districts of the state. From these data and recommended norms an attempt will be made to make constructive recommendations toward assisting school administrators and audiovisual supervisors in local production programs.

Please feel free to elaborate on any of the questions. Your cooperation is sincerely appreciated.

Sincerely,

Edward S. Ellis

Graduate Committee:

Mr. William D. Schmidt, Chairman Dr. Donald J. Murphy Mr. Gerald F. Brunner

Please note:

The signature has been redacted due to security reasons