

A PLAN FOR IMPROVING SKILLS IN THE USE OF AUDIOVISUAL MATERIALS
BY THE TEACHERS IN SOLOMON, KANSAS - UNIFIED DISTRICT #393

by

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INTRODUCTION

The recent increase in the use of audiovisual teaching media has been brought about by the development of audiovisual equipment, pressures and changes from outside the school, and improvement of the professional training of teachers. Many modern homes contain excellent audiovisual equipment in the form of radios, television sets, tape recorders, and motion picture and slide projectors. The child often learns his first songs from his personal record player. This continues to the point where transistor radios are commonplace among teenagers, and a television set is considered a necessity for housekeeping by most young married couples.

The modern teacher needs to make use of all available media if he is to communicate effectively with the student; but before this can take place, the teacher must be aware of what equipment exists, be able and willing to employ it to the best advantage, and also recognize its limitations and peculiarities. The utilization of audiovisual materials is frequently a weak area in the training of the older teachers and non-degree teachers who have not had any opportunity for in-service training with new media in education.¹ It has been stated that the American teacher was the only professional person still trying to work with yesterday's tools.²

¹Mildred Sandison Fenner (ed.). "On Teacher Preparation," NEA Journal, 63:24, December, 1963.

²Don White. "Tools of Learning," The Nations Schools, 67:65, February, 1961.

Present day schools have little choice but to accept the challenge and provide the best in audiovisual materials with skilled personnel capable of using them to the best advantage.

Because it was felt that entirely too few teachers in the Solomon, Kansas, schools were making adequate use of the audiovisual materials available, and because several of the teachers, particularly at the elementary level, were apparently unaware of what was available, this study was made. The writer attempted to analyze the situation in the school system with the hope of incorporating audiovisual technology with instructional improvement.

LOCATION AND HISTORY OF THE SCHOOL SYSTEM STUDIED

Solomon, Kansas, is a small town with a population of approximately 1100 people. It was established about a hundred years ago as a farming community with a predominance of Irish and German settlers. The community has followed the typical growth pattern of many Kansas areas with an elementary school being established in town and with each rural community having its own "little red schoolhouse." A high school was established in the early 1900's. In about 1920 a new building was constructed and since that time has served both the city and rural areas.

Consolidation began in the 1940's and continued as roads and buses improved. This resulted in one or two rural schools closing each year. The Unification Law of 1963 found the area studied being served by Solomon Rural High School, Solomon Grade School, Niles Grade School (one teacher in a new building), New Cambria Grade School (three teachers in a new building), and Verdi Grade School (one teacher in an old building). These schools

were consolidated into Solomon Unified District #393. The high school enrollment was about 165 with a total grade school enrollment of over 500. Attendance centers were maintained at Niles, Verdi, and New Cambria with an extensive bus system serving the district.

During this time there was a trend toward larger and larger farms and the consequent reduction in the number and size of the rural families. A sociologist from Kansas State University, Dr. Joseph Julian, described Solomon as a "dormitory town," meaning that people maintained homes there but commuted to work in nearby cities.¹ This has been possible because of the proximity of Abilene, Salina, Schilling Air Force Base, and Fort Riley which could all be easily reached with the excellent inter-connecting railroads and highways. There has been the usual distribution of income and social class as compared to similar communities, with perhaps a slightly larger-than-usual number of lower-income families in a low-rent section of the town. The patrons have generally shown a keen interest in their school system, worked hard for unification and, in 1965, initiated plans for a \$750,000 school plant to be located in the northeastern part of Solomon as a K-6-6 system.

These changes have resulted in a continuous increase in the number of teachers and the strengthening and specialization of the faculty to the present staff of 35. This has facilitated the purchase and use of more audiovisual materials and has also improved the opportunity for communication among faculty members.

¹Dr. Joseph Julian, Associate Professor of Sociology, Kansas State University, in a lecture, May, 1965.

STATEMENT OF THE PROBLEM

The primary purpose of the study was to determine the following:

1. The audiovisual equipment that is available and the extent of its use.
2. The available audiovisual supplies and how they are used.
3. The type and amount of audiovisual training of the teachers.
4. The feasibility of an in-service training program.

JUSTIFICATION OF THE PROBLEM

It seemed to the writer that an educational system with an enrollment of nearly seven hundred students should have an appraisal of its audiovisual instructional program. Such a study could be used as a basis for an orderly and efficient system for the use of audiovisual media which would in turn improve the teaching program.

METHOD OF PROCEDURE

The method of procedure in this study consisted of the following items:

1. Background information was obtained by the writer while enrolled in the two courses, Audio Visual Aids and Audio Visual Programming, at Kansas State University.
2. The writer reviewed professional books and periodicals in his personal library and those at the Kansas State University Library. Pertinent books on the subject were obtained from the Kansas State University Library and also from Dr. Burl Hunt, College of Education at Kansas State University.

3. A questionnaire was designed for the purpose of determining the experience of the teachers in the system in the utilization of audiovisual aids as well as their background, training, and interest in these materials. This was a creative and descriptive study and was limited to the instructors in the schools in Solomon Unified District #393. The results obtained from the questionnaire were analyzed and tabulated.

DEFINITIONS OF TERMS USED

Audiovisual Aid. This refers to any device through which the learning process may be encouraged or carried on through the sense of hearing and/or the sense of sight.¹ It may also refer to those teaching materials, some real, some graphic, not solely dependent upon words as a predominant source of meaning for the observer and is currently being referred to as audiovisual technology rather than audiovisual aid.²

NDEA. The National Defense and Education Act whereby the Federal Government reimburses the school for one-half of the cost of certain instructional materials.

Skills. This includes both mechanical skills in operating the equipment and the associated teaching skills.

¹Carter V. Good (ed.). Dictionary of Education, p. 22.

²Erickson. op. cit., p. 5

REVIEW OF THE LITERATURE

The primary function of audiovisual materials is to provide experience whereby a child can build up his storehouse of meanings.¹ They assist the child to learn more in less time, increase interest in the material presented, and help him to remember better.

The increased interest in audiovisual aids is certainly not because there is anything new about the use of some audiovisual aid in education; in fact, the use of some aid is probably as old as education itself. Nor is there anything new about formal recognition of the subject. The first copies of the periodical, Educational Screen, were printed in 1922. At that time the editor wrote

The innumerable aids developed through centuries of educational advance. . .are all but devices to extend. . .the power of the teacher. . .the multiplication of these devices merely intensifies the need for great teachers who can bring forth ever finer results from the finer facilities.²

The above quotation outlines the theme of this study--to help teachers be better teachers and to improve the learning process by using the best audiovisual methods and materials.

The obvious question, "How do audiovisual aids make teaching and learning easier?" was discussed as follows in the Catholic School Journal:

First, the audio visual approach makes learning easier by providing a rich background of experiences impossible through other media. A child can follow the path of a bullet; he can watch rose petals unfold; he can view a satellite

¹Paul R. Wendt. "Audio-Visual Instruction," Department of Classroom Teachers, American Educational Research Association of the National Education Association, Bulletin No. 14, December, 1957, p. 6.

²Paul C. Reed. "The Visual Movement," Educational Screen and Audio Visual Guide, 41:17, January, 1962.

break off to the sun; he can see the Disney-like world hidden in a drop of pond water. All the world can be caught on film and brought to the classroom to enrich the mind of a child. Further, any idea possible to the creative imagination of man can be diagrammed, made visual, and so made meaningful.¹

Dale, Finn, and Hoban in The Forty Eighth Yearbook of the National Society for the Study of Education listed seven advantages of using audiovisual materials.

1. They supply a concrete basis for conceptual thinking and hence reduce meaningless word responses of students.
2. They have a high degree of interest for the students.
3. They supply the necessary basis for developmental learning and hence make learning more permanent.
4. They offer a reality of experience which stimulates self-activity on the part of the student.
5. They develop a continuity of thought; this is especially true of motion pictures.
6. They contribute to growth of meaning and hence to vocabulary development.
7. They provide experiences not easily secured by other materials and contribute to the efficiency, depth, and variety of learning.²

Another authority outlined the following as the roles which audiovisual technology plays in the instructional program:

1. It provides the teacher with the means for extending the horizon of experience.
2. It helps teachers provide meaningful sources of information.
3. It provides teachers with springboards into a wide variety of learning experiences.

¹Sister M. Charline, S.S.N.P. "A-V Reaches a Child's Mind," The Catholic School Journal, 61:34, April, 1961.

²Edgar Dale, James Finn, and Charles Hoban. "Research on Audio-Visual Materials," Audio-Visual Materials of Instruction, Forty Eighth Yearbook of the National Society for the Study of Education, Part I, p. 254.

4. It assists teachers to overcome physical difficulties of presenting subject matter.
5. It provides teachers with a rich source of pupil purpose when preparing materials with students.
6. It provides teachers with a kit of tools for carrying out diagnostic, research and remedial work.¹

The problem of which audiovisual aid to use, when and how to use it, and how to evaluate it often arises. The instructor should always ask "Is this the best available means of presenting this material to this group in order to achieve the desired objectives?"² The materials should never be used only because a teacher feels that he is using or should be using the most modern techniques.

There are many sources of information about aids which can be easily attained, some of these are:

1. Audiovisual sections of periodicals such as The Catholic School Journal and Educational Screen.
2. The Educational Film Guide, H. W. Wilson Co., 950 University Avenue, New York, New York.
3. Filmstrip Guide, also by the Wilson Co.
4. Film libraries at state colleges and universities.
5. Local facilities.
6. United States Government films.
7. Educational Film Library Association.
8. Educators Progress Service, Randolph, Wisconsin.
9. The National Audio-Visual Association, Fairfax, Virginia.³

¹Erickson, op. cit., pp. 12-27.

²Ella Callista Clark. "How Can I Find the Right AV Aid?" The Catholic School Journal, 61:36, April, 1961.

³Ibid., p. 37.

As Archibald B. Shaw stated in Overview, "The most pressing problem is to get teachers away from the single textbook, from the read-and-recite, lecture-and-echo methodology."¹ Audiovisual aids help reduce verbalism and provide a concrete basis for conceptual thinking.²

Many factors enter into the attitude toward and the use of audiovisual aids. Any attempt to improve their use among one's fellow teachers may meet with something less than enthusiasm, possibly because this can be interpreted as criticism of the plan they are using. Some administrators have shown reluctance to make use of the NDEA funds which are available to pay one-half of the cost of new equipment and materials.

A study by Gaylen B. Kelley found that there were twelve significant factors which determined a teacher's attitude toward audiovisual materials.

1. Supervisors' assistance.
2. Frequency of use (more usage--better attitude).
3. Ease of ordering materials.
4. Satisfaction with own use of aids.
5. Amount of equipment available.
6. Use of materials by fellow teachers.
7. Grade level taught (better attitude in lower grades).
8. Use of aids by college instructors.
9. Amount of material available.
10. Physical organization of classroom.
11. Sex of teacher (women have better attitude).
12. Condition of materials.³

Herbert Hite, writing for Audiovisual Instruction, listed six tips on how to approach colleagues for improving the use of modern aids.

¹Archibald B. Shaw. "One View," Overview, 2;15, April, 1960.

²Edgar Dale. Audio-Visual Methods in Teaching, rev. ed., New York: Dryden Press, 1954, pp. 66, 124-6, 491, 386, 286-7, 485.

³Gaylen B. Kelley. "Study of Teachers' Attitudes Toward A-V Materials," Education Screen, 40:119-21, March, 1960.

1. Communications specialists know that it is far easier to create a favorable attitude toward an idea or product with an effective first impression than to change a negative attitude already formed.
2. People are more inclined to accept new ideas from persons whom they respect.
3. People, and teachers, tend to accept what they believe they figured out for themselves.
4. An individual is likely to accept a message or new idea if such acceptance offers an immediate and personal award. . .
5. People generally are less apt to accept a new device if a number of technical problems must be mastered before the device can be put to use.
6. Finally, public relations researchers have discovered (with something of a shock) that most people resent being manipulated by selling techniques.¹

The person in charge of an audiovisual program would, of course, need to determine what was needed in the way of equipment and supplies, what was presently owned by the system, and how to get the materials to the persons needing them at the right time. Even the finest materials are worthless unless prospective users are aware of them and can use them at the opportune time. Communications must be established with the prospective users.²

The writer felt that, even in a small school system, one person should be responsible for the equipment and its upkeep, a check-out system, and delivery of materials to the persons requesting them. In some instances it would be desirable to incorporate the audiovisual materials and other instructional media into one center. However, it must be remembered that

¹Herbert Hite. "Education: Still the No. 1 Target," Audiovisual Instruction, 5:206, September, 1960.

²William B. Sandborn. "Someone Has to Mind the Store," Audiovisual Instruction, 5:328, December, 1960.

simply grouping things together and checking them out does not, in itself, make a desirable situation and solve all the problems. The person in charge must not be only a keeper of things but also a purveyor of ideas and skills for the improvement of instruction.¹

In writing about the role of the coordinator, Irving L. Moranz mentioned the following as very practical functions:

1. Deliver and pick up materials from each area daily.
2. Locate labeled screens in strategic places.
3. Train teachers, not students, as operators--they will be more creative.
4. Use a sign-out system for heavy equipment.
5. Put equipment on labeled tables.
6. Attach instructions to equipment such as, "Allow fan to run three minutes after showing.
7. Require written requests for all materials and equipment.²

Any attempt to facilitate the use of audiovisual aids would be doomed to failure unless the school administration was "sold" on the idea. Forrest E. Conner, speaking at the National Education Association convention in Miami Beach in June, 1961, gave the following criteria for sizing up an administrative attitude:

1. Is the administrator aware of and open minded about these technical developments?
2. Is the administrator concerned about preparing teachers to use audiovisual materials?
3. Is the administrator prepared to provide leadership for a good audiovisual program?
4. Is the administrator prepared to provide adequate financial support for the instructional materials program?

¹Albert A. Goldberg and Richard A. Darling, "Is the Instructional Materials Center the Answer?" Audiovisual Instruction, 6:194-5, May, 1961.

²Irving L. Moranz, "Hints for Harried Coordinators," Audiovisual Instruction, 9:616-17, November, 1964.

5. Does the administrator facilitate the use of audiovisual materials?
6. To what extent has the administrator set up a means which periodically evaluates the audiovisual program?¹

A recent survey in one state showed that 80 per cent of the superintendents of schools believed that classroom teachers were not prepared to use audiovisual materials in the classroom. Ninety per cent believed that the best way of instructing teachers in audiovisual methods would be by a special course at an institution for teacher education.²

Cost of instruction is always a factor, and an administrator must be convinced that the school is getting value received for any expenditure. Many times it is more economical to rent than to buy equipment, especially in cases where obsolescence is a factor.³

Various authorities have made recommendations as to the type and amount of equipment for optimum usage. Some of these are given in the following table.

Teachers need to become more aware of the various possibilities in using the many types of audiovisual aids which are now a part of the modern school system. Perhaps more important, however, is that they become aware that these are only aids, never substitutes. Instruction is a personal process with the teacher playing the lead, and with aids playing a supporting role. Aids must be used wisely, constantly studied and evaluated, and constantly improved.

¹Forrest E. Conner, Speech delivered at concurrent session of the NEA Convention at Miami Beach, June, 1961, Audiovisual Instruction, 6:256, June, 1961.

²Wendt, op. cit., pp. 28-9.

³William Exton, Jr., Audio-Visual Aids to Instruction, pp. 67-69.

TABLE I

THE MINIMUM BASIC EQUIPMENT FOR AN EFFECTIVE AUDIOVISUAL PROGRAM
FOR EACH ATTENDANCE CENTER AS RECOMMENDED BY ADMINISTERING
AUDIO-VISUAL SERVICES, AUDIO-VISUAL PROCEDURES IN TEACHING ,
AND "CALIFORNIA COMMISSION ON AUDIO-VISUAL AIDS."

Name of machine	Administering Audio-Visual Services ^a	Audio-Visual Procedures in Teaching ^b	California Commission on Audio-Visual Aids ^c
Sound Projector	One for every 300 students or one per building	One for every 200 students	One for every 300 students or one per building
Film-Strip Projector	One for every 200 students or one per building	One for every 200 students	One for every 200 students or one per school
2" X 2" Projector	One for every 200 students or one per building	One for every 400 students	One for every 200 students or one per building
Opaque Projector	One for every school	One for each building	One for every school
Radio	Two for each school	One for each classroom	No recommendation
Record Player	Two for each school	One for each 200 students	Two for each school
Tape Recorder	One for every 300 students or one per school	One for every 200 students	One for every 300 students or one per school

^aCarlton Erickson, Administering Audio-Visual Services, pp. 341-42.

^bLester B. Sands, Audio-Visual Procedures in Teaching, p. 517.

^cWalter A. Wittich, "Audio-Visual Facilities," The Nation's Schools, 62:80, November, 1958.

THE STUDY

The use of audiovisual materials in the Solomon school system was found to be somewhat typical of that which existed in most small schools at the time. Various machines had been purchased over the years, usually by a principal or superintendent as recommended by teachers. There had been little, if any, long-term planning in their purchase and very little organization in their use. Teachers tended to concentrate on one device and kept it in their room even when not using it. As a result, other faculty members would have to go on a "projector search" when they wished to use a machine. Films were often ordered spontaneously, used haphazardly and therefore rather ineffectively, since there was no opportunity to plan for instruction before and after their use.

As a result of the system's rapid growth (due partly to unification) and because it could easily be seen by the administration that this was an area where instructional improvement was needed, it was decided to coordinate the use of the various audiovisual materials. It was hoped that they would be utilized more universally and effectively and also that economies in time and money would be realized. A high school teacher, because of training and interest, was selected to schedule, service, and coordinate the use of existing materials and to determine the need for new materials. As a part of this coordination program, this study was made by the writer.

It was indicated from the study and from the writer's observations that elementary teachers made the optimum use of audiovisual devices, and that they are employed to a lesser extent as the grade level rises. For example, the kindergarten and lower grades use flannel graphs,

show-and-tell, recordings, and similar aids very frequently. However, this frequent use has decreased to the occasional film in many cases by the time the secondary level is reached. Probably one of the main reasons for this decrease is that teachers simply do not know what materials are available, and have therefore not incorporated them into their plans. This particular deficiency would almost justify an in-service training program.

The comments made on the questionnaire used by the writer were interesting and supported the findings of the research. A New Cambria teacher commented that the cost of equipment in a small school was prohibitive to its use. Another teacher wrote that she questioned the value of audiovisual aids because students thought of films as "holidays." A music teacher expressed considerable desire for audio equipment but also wrote, somewhat as an afterthought, that he didn't even have a blackboard. However, Mrs. Nina Eisenhower, of Verdi Grade School, summed up her idea of the value of audiovisual equipment in a very positive way when she wrote

I am very interested in audiovisual instruction. Audiovisual education increases the breadth and depth of experience, so that learning may be rich and meaningful, appreciations are broad and deep, attitudes are formed out of intellectual examinations of the total situation. In audiovisual education, thinking is developed in an orderly fashion--so, I will be glad to be able to use this method of instruction along with the regular methods now being used in our school.¹

The answers to the questionnaire indicated that audiovisual materials were being used very little with only one teacher indicating as much as six to ten hours per week. A slight majority indicated no

¹Mrs. Nina Eisenhower, of Bennington, Kansas, in section for comments on questionnaire, May, 1965. Permission to quote secured.

usage at all. Considering that most teachers were conducting recitations and lectures about twenty-five hours per week, this would indicate that, at the most, audiovisual materials were being used less than 10 per cent of the time.

The responses to the question as to which still projection machines are used most frequently are shown in Table II.

TABLE II
A COMPARISON OF TEACHER'S WEEKLY USE OF VARIOUS STILL
PROJECTION MACHINES IN SOLOMON PUBLIC SCHOOLS

School	Slide Projector	Opaque Projector	Overhead Projector	Filmstrip Projector
Solomon Elementary	2	0	0	4
Solomon Secondary	2	0	5	10
Verdi, Niles, New Cambria	2	0	0	3

Table II shows that the filmstrip projector is used most frequently by all teachers and that it is used more by high school than elementary teachers. This would be due partly to availability because the high school owned three filmstrip projectors which loaned them to the local elementary teachers when they wished to use them. Outlying teachers indicated that they had to borrow this equipment from the county superintendent. For some teachers this would involve a distance of several miles.

Fifty per cent of those responding said that they used school-owned filmstrips and the remainder were equally divided between the county

film library and commercial rentals. One teacher obtained filmstrips from the Kansas Highway Patrol and the county health nurse.

Responses to the questionnaire indicated that servicing of the equipment was a problem. Four stated that the audiovisual director (the high school teacher mentioned previously) did the servicing, four relied on a local dealer, two returned the equipment to the factory, six had the principal take care of it, and one went to the county superintendent. These varied answers point out the inconvenience and lack of economy in handling this problem.

The training in the use of audiovisual aids of the teachers varied considerably, both in type and degree as shown in Table III.

TABLE III

THE TYPE OF TRAINING AND THE NUMBER OF TEACHERS TRAINED IN
THE USE OF AUDIOVISUAL AIDS IN SOLOMON PUBLIC SCHOOLS

School	College Courses	Workshops	In-service	Self-taught	None
Elementary	3	6	2	2	6
Secondary	6	0	3	5	1

Those who had audiovisual training in college had received from one to six hours credit with most (six) of them receiving three hours credit. Table III indicates that most of the teachers have had some training in the use of audiovisual media; many of them have had formal education. Since all the secondary teachers have degrees, it is logical that they generally had received their audiovisual training in college, while many elementary teachers, some without degrees, had received training as a part of pre-school institute workshops.

The majority (twelve) of those questioned said they would first purchase an overhead projector if given a choice. This was somewhat surprising since some had never had any opportunity to even see one and very few had ever used one. At the time this study was made, there was only one overhead projector in the system, but the purchase of three more was being contemplated. Slide-filmstrip projectors rated as second choice, motion picture projectors as third preference, and only one person expressed a preference for an opaque projector. Only six of those responding felt that they could efficiently operate all four projection devices, and eight indicated that they could operate none of them. Fifteen of the teachers who answered the questionnaire said they could operate motion picture projectors, eighteen the filmstrip projector, ten the opaque projector, and twelve the overhead projector.

The responses to a question as to how films were obtained showed that teachers were divided equally between doing their own ordering and having the principal do it for them. The motion picture films were obtained primarily from three sources--the film library at Kansas University, the film library at Kansas State Teachers College in Emporia, and free film companies.

Most authorities agree that it is extremely important for a teacher to preview a film, yet less than half (11 out of 25) of the teachers questioned by the writer indicated that they did so. Four said they previewed films about half of the time and ten said they seldom did.

Oral discussions were by far the most frequently employed means of follow-up on a film showing. One teacher practiced immediate testing, two included the material as part of regular testing, and two indicated that they did nothing in the way of follow-up.

As was suspected, the questionnaire supported the fact that there was no central place for the storage of equipment and supplies. Responses indicated that there was about an equal scattering of storage among classrooms, a central location, and the administrative offices.

Expenditures for supplies were very moderate. One teacher spent from \$26 to \$50 for audiovisual materials during the year, and the rest indicated an outlay of \$25 or less. Several said they spent nothing at all in this area.

In general, the teachers questioned were experienced, veteran teachers. Twenty-four had over five years of experience, five had one to five years of experience, and only four were beginning teachers. When asked what these teachers felt were obstacles to their making adequate use of audiovisual materials, they responded as follows in Table IV.

TABLE IV

REASONS GIVEN AS OBSTACLES TO ADEQUATE USE OF AUDIOVISUAL
MATERIALS BY TEACHERS IN SOLOMON PUBLIC SCHOOLS

Lack of supplies	15
Lack of equipment	13
Lack of classroom facilities (shades, etc.)	19
Equipment not available when wanted	14
Equipment in poor repair	0
Scheduling difficulties	1
Lack of time for presentation	2
Lack of preparation time	3
Lack of training in operation	3
Lack of understanding of materials	1

It is interesting to note the differences which occur in the answering of the questionnaire. Only three teachers stated that lack of training in equipment operation was an obstacle to the use of audiovisual materials; yet, on an earlier question, eight indicated they could not operate any of the machines and only ten said they could operate all machines. In an earlier question it was indicated that the opaque projector was not a popular audiovisual aid when only one person gave it as first in preference of purchase and ten said they could operate it. No doubt some of these inconsistencies could be explained with further study. For example, Alan Vincent lists the following advantages of an overhead projector:

1. It does not impose restrictions on teachers since the room need not be darkened and it gives a large picture.
2. It is a personal teaching aid in that the teacher can control and choose, draw or use copies, use overlays, conceal and reveal, and at the same time face the class.
3. It has immediacy and the teacher can use material from the morning paper if appropriate.¹

However, even when taking these seemingly contradictions into account, the writer feels that the information collected, studied, and tabulated serves to establish the necessity of the study and support the recommendations which are made.

¹Alan Vincent, "The Overhead Projector," Education Panorama, 7:19, January, 1965.

RECOMMENDATIONS

It is first recommended that the administrators and boards of education of Solomon Unified District #393 recognize audiovisual materials as a vital and increasingly important part of the instructional program and inaugurate a plan for spending the necessary time and money by implementing the following procedures:

The employment of a half-time audiovisual coordinator or the reduction in the work load of a teacher in the system to one-half and giving that person the responsibility for carrying out the program.¹ This person should be given the necessary status and title of Audiovisual Coordinator. This person should be qualified for the position by virtue of training, experience and interest in proper utilization of audiovisual aids.² This coordinator should serve as a liaison between teachers and administration, establish an audiovisual center, handle bookings and deliveries, be responsible for repair and maintenance, keep himself currently informed and trained, and conduct an in-service training program when needed. He should also be informed about local sources and audiovisual dealers (see list in appendix).

That the school library contain books such as Simplified Techniques for Preparing Visual Instructional Materials (written by Ed Minor and published by McGraw-Hill in 1962) and subscribe to a current

¹Charles Schuller, "Improve Your Instructional Program," The Nation's Schools, 63:71, February, 1959 and/or Anna Hyer, "Administration," The Nation's Schools, 67:91, February, 1961.

²Carlton Erickson, Administering Audio-Visual Services, p. 312.

periodical such as Education Screen or Audiovisual Guide, or both if funds allow, and make these materials available in the teachers' work-room. Their use should be encouraged by the administration and the audiovisual director.

It is particularly recommended that the persons in charge of the new building program take full recognition of the status of audiovisual aids in modern education and make provision for any and all materials now available plus those which can be anticipated.¹ At the time of this writing funds have just been allocated for educational television channels in Topeka and Wichita (both within the range of the system being studied) and certainly installation, or at least provision for installation, of multiple television sets should be considered. Study should be made of available information before final building plans are made. Two bulletins are available from the NEA Department of Audio-visual Instruction in Washington; they are entitled Planning Schools for Use of Audio-Visual Materials, No. 1, Classroom and Planning Schools for Use of Audio-Visual Materials, No. 2, Auditoriums.

In conclusion it is finally recommended that the use of audiovisual aids be constantly evaluated by all concerned, with the equipment being repaired or replaced, the material altered, and the techniques improved at every opportunity. The writer feels that a plan of this sort would greatly strengthen the entire learning program of the system by utilizing to the fullest some of modern technology's most ingenious devices--audiovisual aids.

¹Basil Castaldi, "Profile of Your Next Building," Overview, 14:30-31, 1963.

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APPENDIX

Solomon, Kansas
April 28, 1965

Teachers
Unified District #393
Solomon, Kansas

Dear Teachers,

We are presently planning our new audiovisual equipment and supplies for the Solomon schools. The present use of audiovisual aids, when determined, will serve as a guide in establishing and improving our program and in determining the purchases that will be made.

Only you, as a classroom teacher, can evaluate what you are using and what your needs will be. It is hoped that the responses to the enclosed questionnaire will enable us to develop a program for the most effective use of audiovisual equipment and supplies in our local system.

Please read each question carefully, select the answer or answers that best fit your situation, and return it as soon as conveniently possible to me in the enclosed envelope. In the event that you do not want your responses known to your fellow teachers or administrators, please feel free not to sign the questionnaire. However, we do need to know who has replied, so please mail this letter back separately if you wish to be anonymous.

It is hoped that you will see the results of this study in a strengthened audiovisual program in the near future. Please indicate on the questionnaire if you would like to have a summary of the study after it is completed.

Thank you very much for your time and consideration of this program.

Sincerely,

Lawrence Strouts, teacher
Solomon High School

DIRECTIONS - Please read each question completely and carefully and circle the number of the choice or choices which best fits your situation.

1. How many hours per week do you use Audio-Visual (AV) machines?
 1. 0
 2. 1-5
 3. 6-10
 4. Over 10 -- Specify _____
2. Which of the following still projection machines do you use most frequently?
 1. Slide projector
 2. Opaque projector
 3. Overhead projector
 4. Filmstrip projector
3. From which of the following sources do you obtain most of your filmstrips?
 1. School owned
 2. County film library
 3. Commercial rental
 4. Other -- Specify _____
4. By whom are the machines serviced?
 1. AV director
 2. Local dealer
 3. Returned to factory
 4. Principal
5. What training do you have in AV skills?
 1. AV college courses
 2. Workshops
 3. In-service training
 4. Self-taught
 5. None
6. If you had AV work in college, what credit did you receive?
 1. None
 2. 1-3 hours
 3. 4-6 hours
 4. Over 6 hours
7. If you had no AV equipment, which of the following would you purchase first?
 1. Overhead projector
 2. Slide and filmstrip projector
 3. Opaque projector
 4. Motion picture projector
8. Which of the following can you efficiently operate?
 1. Motion picture projector
 2. Filmstrip projector
 3. Opaque projector
 4. Overhead projector

9. How do you obtain rental films?
 1. Order yourself
 2. Request to AV director
 3. Request to principal
 4. Request to school board.
10. Where do you obtain most of your motion picture films?
 1. Do not use them
 2. Kansas University film library
 3. Free film companies
 4. Other ---- Specify_____
11. How frequently do you preview before using AV materials?
 1. Almost always
 2. About half of the time
 3. Seldom
12. What follow up do you use on films?
 1. Test immediately
 2. Included in regular tests
 3. Oral discussion
 4. None
13. Where is the AV equipment stored?
 1. Kept in the classroom
 2. Kept in the AV center
 3. Kept in the principals office
 4. Other -- Specify_____
14. How much do you spend on AV supplies per year? (Include rentals, lamps, etc.)
 1. 0-25 dollars
 2. 26-50 dollars
 3. 61-75 dollars
 4. 76-100 dollars
 5. Over 100 dollars
15. Do you assign certain television shows as homework?
 1. Never
 2. Seldom
 3. Regularly
 4. Inform student, but watching is optional.
16. How many years have you taught?
 1. Beginner
 2. 1 to 5 years
 3. Over 5 years

17. Which of the following are obstacles to your making adequate use of AV materials?
1. Lack of supplies
 2. Lack of equipment
 3. Lack of classroom facilities (dark shades, electrical outlets, etc.)
 4. Equipment not available when wanted.
 5. Equipment in poor repair
 6. Scheduling difficulties for motion pictures
 7. Lack of time for presentation for AV aids
 8. Lack of time for preparation of AV materials
 9. Lack of training in equipment operation
 10. Lack of understanding of the available supplies and equipment.

Comments ----

AUDIO-VISUAL DEALERS

Wolfe's Camera Shops, Inc.
Mr. Harold G. Worswick
116 West 8th, Topeka, Kansas

Centron Corporation
Mr. Russell Mosser
1621 West Winth, Lawrence, Kansas 66044

Calvin Productions, Inc.
1105 Truman Road, Kansas City 6, Missouri

Steve Smith Cameras, Inc.
Mr. Steve Smith
623 Kansas Avenue, Topeka, Kansas

Kan-A-Vision Manufacturing Co., Inc.
Jess F. Kemp, President
5615 Raytown Road, Raytown, Missouri 64133

Hoover Brothers
C. A. Shuck Graham, Area Representative
R. F. D. 1, Lawrence, Kansas

Electronic Business Equipment Co.
L. Seldon
1500 Grand Avenue, Kansas City, Missouri

McGraw-Hill Test Films
Preston W. Hoidner, Representative
8720 Broadmoor, Overland Park, Kansas

Minnesota Mining and Mfg. Co.
Jerry Wallin, Sales Engineer
5276 Skyline Drive, Mission, Kansas

Encyclopaedia Britannica Films, Inc.
Al Mann, District Manager
1738 Trowman Way, Emporia, Kansas

Coronet Films
Jack Blackwood, District Mgr.
3217 Diane Drive, Oklahoma City, Oklahoma

A-V Services, Inc.
Bill Wallingford
709 Westport Road, Kansas City 11, Missouri

AUDIO-VISUAL DEALERS (continued)

Frank Bangs Company
Mr. Frank S. Bangs
231 Ida, Wichita, Kansas

Roberts Audio-Visual
Mr. Keith Roberts
1330 Fairmount, Wichita, Kansas

Carroll Radio and TV Supply
1123 Sixth, Topeka, Kansas

Kansas City Audio-Visual
Mr. Milton Adler
3403 Main Street
Kansas City 11, Missouri

Advance Products Company
2300-10 East Douglas
Wichita, Kansas

Field Enterprises
Wilbur M. West, Area Manager
1103 West 20th, Lawrence, Kansas 66044

Tecnifax Training & Service Center
Robert F. Tacey, Visual Communication Specialist
7540 Manchester Trafficway, Kansas City, Missouri

Perceptual Development Laboratory
Richard F. Henges, Regional Representative
P. O. Box 8579, Kansas City 14, Missouri

Kansas City Sound
Mr. W. P. Humston
1822 Main Street
Kansas City 8, Missouri

A PLAN FOR IMPROVING SKILLS IN THE USE OF AUDIOVISUAL MATERIALS
BY THE TEACHERS IN SOLOMON, KANSAS - UNIFIED DISTRICT #393

by

LAWRENCE RUSSELL STROUTS

B. S., Kansas State University, 1949

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY

Manhattan, Kansas

1965

The purpose of the study was to appraise the training of the teachers in Solomon Unified District #393, their interest in audiovisual technology, and the extent to which they were utilizing audiovisual materials in their daily teaching. The writer expected that this study would be of value in determining the feasibility of an in-service training program, the appointment of a coordinator, and the establishment of an audiovisual center.

The writer reviewed the literature in the field of audiovisual materials, with special attention being given to the following areas: (1) the ways in which audiovisual materials make the teaching-learning process more effective, (2) the types of audiovisual media available and their sources, and (3) the factors involved in establishing an audiovisual center with an audiovisual director.

A questionnaire was designed, sent to the teachers in the district, and the results of those returned were tabulated in order to determine the training of the teachers, the materials they were using, and their expressed desires in the field of audiovisual materials. The author felt this information would be necessary to know what additional materials were needed, the type of scheduling system that should be implemented, and whether an in-service training program should be attempted.

The review and the study indicated that (1) one person, probably a teacher, should be designated as the audiovisual director and allowed the time necessary to handle the program properly, (2) an orderly and long-term plan for the purchase and/or rental of the necessary materials and equipment should be instituted, (3) machines and supplies

should be kept in a central location and systematically checked in and out, and (4) the use of audiovisual media should be encouraged through a showing of administrative interest and conducting an in-service training program.

After consideration of the situation at the time of the study and the findings of the study, the writer felt that a plan as outlined above would definitely improve the instructional program in Solomon Unified District #393 and that both teachers and students in the area would benefit by such a plan.