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A survey of the utilization of the video tape recorder in Iowa secondary schools

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A survey of the utilization of the video tape recorder in Iowa secondary schools

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Abstract

As education in the United States continues to grow in importance, a number of factors that influence the learning process become increasingly significant. The use of educational media in the schools is one of the problems facing teachers and administrators. Technology in the media field has a marked tendency to move ahead much faster than the ability of educators to put these new tools to use. One such example of this dilemma is the video tape recorder.

As more and more Iowa school districts purchase video tape equipment, the question of utilization of this apparatus becomes important. It is necessary that the VTR be used extensively for a school district to get its money's worth from this rather expensive equipment.

It is possible that the VTR is being used as much as possible in Iowa schools. However, it seems quite likely that some schools have purchased multi-thousand dollar dust collectors because the instructional staff is not aware of the possible uses of this equipment in the educational process.

It will be the purpose of this survey to determine how the VTR is being used, how much it is being used, and who is operating it in the secondary schools of Iowa.

A SURVEY OF THE UTILIZATION OF THE VIDEO TAPE
RECORDER IN IOWA SECONDARY SCHOOLS

A Research Paper
Presented to
the Department of Library Science
University of Northern Iowa

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
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Chapter 1

THE PROBLEM

As education in the United States continues to grow in importance, a number of factors that influence the learning process become increasingly significant. The use of educational media in the schools is one of the problems facing teachers and administrators. Technology in the media field has a marked tendency to move ahead much faster than the ability of educators to put these new tools to use. One such example of this dilemma is the video tape recorder.

As more and more Iowa school districts purchase video tape equipment, the question of utilization of this apparatus becomes important. It is necessary that the VTR be used extensively for a school district to get ^{its} money's worth from this rather expensive equipment.

It is possible that the VTR is being used as much as possible in Iowa schools. However, it seems quite likely that some schools have purchased multi-thousand dollar dust collectors because the instructional staff is not aware of the possible uses of this equipment in the educational process.

Statement of the Problem

It will be the purpose of this survey to determine

how the VTR is being used, how much it is being used, and who is operating it in the secondary schools of Iowa.

Importance of the Study

If the results of this study indicate that Iowa's secondary schools are using video tape in a variety of educationally innovative ways, and keeping the equipment in operation for a majority of the time, I will be impressed with their actions. But, if the survey indicates that schools that have VTR equipment are not using it to the extent that is possible, some action should be taken to correct the situation. With educational finance in its present state, there is no justification for having video tape equipment standing idle, when it can contribute much to the educational process. If VTRs are not being used, it should be known, and action taken to correct the situation.

Assumptions

The basic assumption made in this study is that video tape equipment is a valuable addition to the educational media tools in use in the schools. A great many articles have been published in educational periodicals that extol the virtues of the VTR. If these are to be believed, then the VTR is indeed a significant addition to the AV field.

Another assumption that must be made is that the survey tool used in this study is a valid instrument to test the utilization of the VTR in the secondary schools. Every attempt was made to devise a questionnaire that would cover all possibilities of use, the degree to which the VTR is used,

and who operates the equipment. The questionnaire was constructed using Criteria for a Better Questionnaire, by Stephen Romine.

It must also be assumed that, in the individual schools participating in this study, someone has the necessary knowledge of the extent of the use of the VTR in that school, to complete the questionnaire in such a fashion as to make it valuable to this study.

Limitations of the Study

The human factor of error in reporting data on the questionnaire is a possibility that cannot be measured. In a study of this type, error can change the results. Another possible limitation in the generalizability of the findings is that the random sample of schools may not actually be representative of the total population of schools from which the sample was taken.

Definition of Terms

VTR - video tape recorder

Utilization - in the field of educational media, utilization or use concerns the philosophy behind the implementation of media in the educational process. This differs from the term operation which is on a mechanical level.

Secondary schools - in this study, only the public secondary schools at the high school level are considered.

Chapter 2

REVIEW OF RELATED LITERATURE

Little research has been done on the utilization of media in the schools. Consequently, this being something of a pioneer study in utilization of the VTR, the literature was surveyed to determine how the experts in education have determined that the video tape equipment should be used.

The first use of video tape that comes to mind, perhaps because it is the easiest to do, is the taping of television programs for classroom use. Educational television programs have been a great help to teachers in presenting new experiences in the classroom, but the programs are not always broadcast at the most opportune time of day. The best way to overcome this difficulty is to record the desired program off the air to present at a later, more convenient time.

Of course, taping TV programs need not be limited to ETV. Network television broadcasts are very useful classroom materials when they are made available to the classroom teacher. The programs can be taped off the air and replayed at the convenience of the teacher. News broadcasts can be recorded and dissected in the classroom. Documentaries that have cost thousands of dollars to produce, are available for much less than comparatively inferior commercially produced

16mm films on the same subject.¹

Another use of video tape is in the production of instructional materials at the local level. First of all, there is considerable visual similiarity in appearance of VTR presentations and television programs. Students who are used to watching TV have a tendency to watch unquestioningly.² Video tape is superior to other formats used in the classroom.^{why?} Students can benefit greatly from the addition of sight and motion to audio tapes. Video tape programs are cheaper and far more flexible than 16mm film. With VTR, the teacher can tailor the film to the lesson and thus not be at the mercy of commercially produced films which are too broad in concept.

Students can become involved in the production of video tape presentations, which leads to increased interest.³ The best way to learn is to teach, so if students can make a visual that teaches, they have certainly learned something. A VTR crew can be assembled, trained, and become extremely adept in no time at all. Certainly a technical staff is not needed for production. Sixth graders can become proficient in VTR operation in three to four hours.⁴

Another strong point for video tape is that feedback is immediately available. There is no production lag, as a program can be played back right after it is taped.⁵

There are a considerable number of types of programs that can successfully be presented with the VTR format. Lectures, demonstrations, experiments, etc. that have to be repeated for different classes can be video taped to

assure that the presentation is always of the same high quality.⁶ Field trips can be replaced by simply taking the VTR on the route that students would take. A sound track can be superimposed on the tape to make an interesting presentation of material that is much cheaper and far more simple than a field trip.⁷ Guest speakers and local resource persons can be placed on tape and save many problems in scheduling. If proper production techniques are observed, and questions from students anticipated, the video tape can be just as good as having the speaker "live."⁸ Another instructional use of the VTR would be production of single concept tapes and the implementation of a program of continuous progress individualized instruction.⁹

Permanent tapes can be placed in a library type collection and even exchanged with other schools. The possibilities of instructional use of video tapes are indeed limitless.¹⁰

The video tape recorder can be used as a tool for self-evaluation and improvement. By using the VTR, you can "see yourself as others see you."¹¹ Video tape use here provides an instant replay, total feedback of what has taken place, which can be very important for both teachers and students.

Micro-teaching is one method of teacher improvement that has been successful. The teacher presents a short, single concept lesson to a small group. The whole event is video taped. The teacher then views and evaluates the tape. The lesson is retaught to another group, changed to correct the shortcomings evident in the first lesson. The second pre-

sentation is taped and critiqued. The teacher can use this technique to correct his teaching techniques.¹²

Another method of teacher improvement is the application of evaluative criteria to taped teacher performances. The "Flanders Interaction Analysis," which evaluates the verbal behavior of teachers and students is one evaluation that may be used.¹⁶ Another type of evaluation that may be used is Bloom's taxonomy¹⁴ (B. Bloom, Taxonomy of Educational Objectives Handbook),

Through the viewing of video tapes of their own, and other teacher's performances, teachers can learn to change classroom behavior. It is possible to discover the various mannerisms and subtleties that distract ^{from} or contribute to teaching.¹⁵

Possibly the foremost use of the VTR in high schools is the recording of performance activities of students. The VTR is excellent for this because of ^{the} characteristic of providing immediate feedback to the performer and his instructor. Students can learn much from self criticism and gain a great deal of self confidence from such activities.¹⁶ Athletics, drama, speech, dance, and music are prime areas for such tapes.¹⁷

Another possibility for video tape is in the area of role play. Student role play can be taped and discussed by teacher and student. Guidance counselors can institute a program of role play in job interviews so that the student can see where changes in behavior are needed. Such an

activity could give the student the self confidence in an interview that would make the difference between being hired or not.¹⁸ The use of the video tape recorder in self-evaluation and improvement activities is significant in that it can assist the subject in developing self realization, an accurate picture of what he is as an individual.

From this review, it can be seen that the video tape recorder is a valuable tool for the media specialist who is attempting to improve his program of services.

Chapter 3

DESIGN OF THE STUDY

In order to determine the extent of the use of the VTR in Iowa secondary schools, a questionnaire was needed. Since no such instrument was available, one had to be developed. First of all, it was necessary to determine whether or not the school had access to video tape equipment. This was the first question in the survey.

Professional journals were then examined for articles containing information about the various uses of video tape at the high school level. From this preliminary study, the main body of the questionnaire was devised, using the various uses described in the articles as subjects for questions.

It was also necessary to find out how much the VTR was used in each of the areas covered by the questions. To accomplish this, the respondent was asked to respond to each statement by coordinating the amount of use to a continuum with corresponding values in hours per week of operation of the equipment.

To determine who operates the equipment, the respondent was requested to rank possible operators according to the amount of time each spent in the operation of the VTR.

In order to determine another area of use, it was asked if the school retained video tapes for later playback in a

library type collection.

The questionnaire was then sent to a random sample of 30 schools selected from the 1971-1972 Iowa Educational Directory. Each public high school listed was given a number according to the order of the directory. A random table of numbers was then used to obtain the sample to be used in the study.

Table 1 - Data - RESULTS OF THE STUDY

Number of questionnaires sent - 30

Number of schools responding - 27

Number of schools having access to video tape equipment - 14

Operators of the VTR - Ranked according to number of hours operating

	1	2	3
Students	6	2	3
Teachers	3	8	1
AV Personnel	4	3	2
Other			
Principal			1

Schools having a permanent library collection of tapes - 7

Areas of use of the VTR

Number of schools responding

	Hours of use per week				
	0	1-4	5-8	9-12	13-
1. teachers view themselves	9	4	1	0	0
2. teachers view others	8	5	0	0	1
3. athletics	3	6	4	0	1
4. speech and drama	1	12	0	0	1
5. music	5	7	1	1	0
6. role play - guidance	10	1	1	1	1
7. role play - classroom	5	4	4	1	0
8. taping ETV	4	7	0	1	2
9. taping commercial TV	4	7	2	0	1
10. lectures, demonstrations	5	7	2	0	0
11. single concept	10	2	1	0	1
12. field trips	9	4	0	0	1
13. guest speakers	4	7	2	0	1

*Scatter above
information in several
tables throughout
next chapter.*

Chapter 4

RESULTS OF THE STUDY

Analysis of the Data

Of the thirty potential participants, twenty seven chose to respond by returning the completed questionnaire. Thirteen of these twenty seven respondents did not have access to video tape equipment, which leaves fourteen participants for the remainder of the study.

It was discovered that students were the primary operators of the VTR equipment in nearly one half of the schools. In the remainder of the schools, primary responsibility for operation was divided between teachers and AV personnel. Teachers were by far the greatest secondary operators.

One half of the schools surveyed retain some of the video tapes they make for later classroom use.

In the area of teacher evaluation and improvement, the VTR is used very little in all but one school reporting. The use of the VTR in the area of student performance activities is considerable, especially (as would be expected) in athletics. However, moderate use of the VTR is being made in speech and drama in most of the schools. Only one school reported no use of video tape in this area. Moderate use was also reported by one half of the schools in the field of music.

Role play in the area of guidance was reported by a few

schools, while VTR use in classroom role playing activities was quite good.

Video tape utilization for instructional uses was greater than evaluation activities. Excellant use of recorded educational TV presentations was reported by one fourth of the schools, while moderate use was found in one half of the respondents. Good use of commercial TV offerings was also made by these schools. *which*

meaning?
In the area of local production of video tape programs, lectures and guest speakers were recorded quite a bit, while single concept instruction and field trips were rarely found to be used as subjects for recordings.

Chapter 5

GENERALIZATIONS

From this study, it is apparant that the VTR is being used to some extent where it is available. The areas indicated as sources of considerable utilization come as no surprise; athletics and off-the-air taping of TV shows. It was good to find the considerable use of VTR in speech and drama activities and in the area of classroom role play recording.

It would seem that for the schools to use the VTR to its ^{not} fullest potential, ^{clear} greater utilization should be made in some areas. Teacher evaluation and improvement of teaching activities is one such area. No great talent is required to record a teacher in action. From an activity such as this, much needed insight into teaching techniques can be obtained.

Another area of utilization, seemingly untapped, is local production of instructional materials using the VTR. Again, no great production skills are necessary and the potential for use is boundless.

Although off-the-air taping was done quite a bit, it seems as though more could be done in this area. This is by far the most simple method of utilization. Perhaps as the ETV network expands to all parts of the state, use in this area will increase.

The use of the VTR in Iowa secondary schools is not as

great as it should be. Of the approximately forty hours per week available, even the most active users of the VTR do not come close to maximum utilization. It is obvious that an in-service program for VTR use is needed if utilization is to be increased. The VTR is too valuable an instructional device to be left setting idle.

Perhaps part of the answer can be found by looking at who operates the equipment. In only four schools was an AV person the primary operator. Although students and teachers can be adequate operators of VTR equipment, utilization is what we are seeking, and that can best come from a person trained in that area, the media specialist. So, part of the solution is for the media personnel in the Iowa secondary schools to blow the cobwebs off the VTR and get out and use it in the ways discussed in this study.

FOOTNOTES

¹Richard J. Gordon, "The Video Tape Recorder and the Social Studies," The Social Studies, December, 1969. p. 325.

²William H. Rigby and Ronald H. Fricker, "The 'Boob Tube' Goes to High School," Industrial Arts and Vocational Education, June, 1969, p. 35.

³John Pierre Berwald, "The Videotape Recorder as a Teaching Aid," French Review, May, 1970, p. 926.

⁴Louis J. Pullano, "Do You Have a Video Tape Recorder?" Instructor, May, 1969, p. 21.

⁵Welby Smith, "Choosing and Using a VTR System," Media and Methods, September, 1971, p. 71.

⁶Robert B. Sund and Bill W. Tillery, "The Use of the Portable Television Tape Recorder in Science Education," Science Education, December, 1969, pp. 419-420.

⁷Kenneth J. Reed Jr. "The Use of TV Tapes in the Science Curriculum," Audiovisual Instruction, May, 1969, p. 43.

⁸N. Wesley Earp and Otho Rink, "Resource Persons Provide Effective Learning Experience Via Videotape," Audiovisual Instruction, December, 1970, p. 55.

⁹William C. Schwab, "Videotape Demonstration in the General Shop," School Shop, March, 1970, p. 55.

¹⁰Sund, p. 420.

¹¹Steward, p. 26.

¹²William J. Attea, Educational Leadership, November, 1970, p. 147.

¹³Roy D. Dillon and Roland L. Peterson, "The Influence of Videotaping Techniques on Student Teacher Behavior in the Classroom," Audiovisual Instruction, March, 1971, p. 63.

¹⁴L. George Lawrence, "Resource Television in Teacher Education," Audiovisual Instruction, November, 1969, p. 997.

¹⁵Sund, p. 420.

¹⁶Wallace Ramsey, "A Pilot Study on the Use of Videotaping in Reading Remediation," Journal of Reading, March, 1969, p. 480.

¹⁷Lynne S. Gross, "Utilizing ITV for Performance Classes," Audiovisual Instruction, November, 1969, pp. 54, 59.

¹⁸P. E. Logue, "Video-tape Role Playing in the Job Interview," Journal of Counseling Psychology, January, 1968, pp. 436-438.

your school does not have any videotape equipment, please check the following blank and omit the rest of the questionnaire.

Operators of the VTR - Rank by number (starting with 1 indicating the greatest amount of time) according to amount of time spent operating

Students _____
 Teachers _____
 AV Personnel _____
 Other (specify) _____

Do you have a permanent (or semi-permanent) library of tapes? yes no

Circle the number that corresponds with the amount of time in use for recording and playback in the specific areas specified. The following continuum and values are to be used to answer the remainder of the survey.

- 1 - 0 hours per week
- 2 - 1 to 4 hours per week
- 3 - 5 to 8 hours per week
- 4 - 9 to 12 hours per week
- 5 - 13 hours or more

Evaluation and Improvement of the Individual

Improvement of teaching techniques

- | | | | | | | |
|--|----|---|---|---|---|---|
| 1. teachers view and critique themselves | 1. | 1 | 2 | 3 | 4 | 5 |
| 2. teachers view tapes of other teachers | 2. | 1 | 2 | 3 | 4 | 5 |

Students in performance activities

- | | | | | | | |
|---------------------|----|---|---|---|---|---|
| 3. Athletics | 3. | 1 | 2 | 3 | 4 | 5 |
| 4. Speech and Drama | 4. | 1 | 2 | 3 | 4 | 5 |
| 5. Music | 5. | 1 | 2 | 3 | 4 | 5 |
| 6. Other (specify) | 6. | 1 | 2 | 3 | 4 | 5 |

Role play by students

- | | | | | | | |
|-------------------------|----|---|---|---|---|---|
| 7. Guidance | 7. | 1 | 2 | 3 | 4 | 5 |
| 8. Classroom activities | 8. | 1 | 2 | 3 | 4 | 5 |

Instructional Uses

Off the air taping

- | | | | | | | |
|-------------------------|-----|---|---|---|---|---|
| 9. Educational TV | 9. | 1 | 2 | 3 | 4 | 5 |
| 10. Commercial stations | 10. | 1 | 2 | 3 | 4 | 5 |

Local production

- | | | | | | | |
|---|-----|---|---|---|---|---|
| 11. Lectures, demonstrations, experiments | 11. | 1 | 2 | 3 | 4 | 5 |
| 12. Single concept instruction | 12. | 1 | 2 | 3 | 4 | 5 |
| 13. Field trips | 13. | 1 | 2 | 3 | 4 | 5 |
| 14. Special lectures, guest speakers | 14. | 1 | 2 | 3 | 4 | 5 |

Thank you for your participation!

BIBLIOGRAPHY

- Attea, William J. Educational Leadership, November, 1970.
pp. 147+.
- Berwald, John Pierre. "The Videotape Recorder as a Teaching Aid," French Review, May, 1970, pp. 923-927.
- De Roo, William M. and Howard L Halalson. "Increasing Workshop Production Through Self-Visualization on Videotape," Mental Retardation, August, 1971, pp. 22-25.
- Dillon, Roy D. and Roland L. Peterson. "The Influence of Videotaping Techniques on Student-Teacher Behavior in the Classroom," Audiovisual Instruction, March, 1971, pp. 63-65.
- Earp, N. Wesley, and Otho Rink. "Resource Persons Provide Effective Learning Experiences Via Videotape," Audiovisual Instruction, December, 1970, pp. 55.
- Gordon, Richard J. "The Video Tape Recorder and the Social Studies," The Social Studies, December, 1969, pp. 325-326.
- Gross, Lynne S. "Utilizing ITV for Performance Classes," Audiovisual Instruction, November, 1969, pp. 54,59.
- Howell, William. "It's Time to Tape," Educational Screen and Audiovisual Guide, May, 1970, pp. 16-17.
- Knudson, Richard L. "Involvement Via Videotape," Audiovisual Instruction, December, 1969, pp. 52-53.
- Lawrence, L. George. "Resource Television in Teacher Education," Audiovisual Instruction, November, 1968, pp. 997-998.
- Logue, P. E. "Video-tape Role Playing in the Job Interview," Journal of Counseling Psychology, January, 1968, pp. 436-438.
- Morrison, Virginia B. and John Childs. "Strategies for the Application of Videotape in Teacher Education," Audiovisual Instruction, March, 1969, pp. 43-48.
- Pugliese, Rudolph E. and Robert J. Gunther. "Evaluating Plays With Video-Tape," Speech Teacher, March, 1969, pp. 99-101.
- Pullano, Louis J. "Do You Have A Video Tape Recorder?" Instructor, May 1969, p. 21.
- Ramsey, Wallace. "Pilot Study on the Use of Videotaping in Reading Remediation," Journal of Reading, March, 1969, pp. 479-482.

- Reed, Kenneth N. Jr. "The Use of TV Tapes in the Science Curriculum," Audiovisual Instruction, May, 1969, p. 43.
- Richmond, William G. "Breaking the Time Barrier," Audiovisual Instruction, February, 1969, pp. 88-89.
- Rigby, William H. and Ronald H. Fricker. "The 'Boob Tube' Goes to High School," Industrial Arts and Vocational Education, June, 1969, pp. 34-35.
- Schwab, William C. "Videotape Demonstrations in the General Shop," School Shop, March, 1970, pp. 54-55.
- Smith, Welby. "Choosing and Using a VTR System," Media and Methods, September, 1971, pp. 68-71.
- Steward, Margaret S. and David S. "Teacher, Teach Yourself," Audiovisual Instruction, April, 1970, pp. 26-27.
- Sund, Robert B. and Bill W. Tillery. "The Use of the Portable Television Tape Recorder in Science Education," Science Education, December, 1969, pp. 417-420.
- Vasile, Francis. "Videotaping the Community," Educational Screen and Audiovisual Guide, May, 1970, pp. 16-17.

*Avoid one sentence paragraphs
 size of school might be important,
 especially for those 13 which
 didn't have access to VTR.
 How did you determine good, moderate, etc. use?*