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ABSTRACT

The utilization of educational television (ETV) in schools can be ascertained by considering the teacher training in ETV, the extent of access to ETV, the student reaction, and the programing. Using a questionnaire survey method combined with detailed ETV logs, this study was able to analyze both ETV and film utilization in 13 elementary and secondary schools in the Toronto area. The data analysis revealed very great differences among teachers in their use of both film and television. This finding proved that simply providing access to ETV did not necessarily mean utilization would follow. The teachers' previous habits towards ETV were the deciding factor on the utilization, be it black-and-white or color. The research also showed that though a large number of color sets were available a sizeable proportion of teachers and students did not feel color television added that much to the programing. In conclusion the study suggested that an equitable distribution of television sets is not the best way to increase utilization. (MC)

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TELEVISION UTILIZATION

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#111

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INTRODUCTION

Background

On December 15, 1970, Professor McLean and members of The Ontario Institute for Studies in Education's Department of Computer Applications submitted a report to the Board of Education. The report contained a series of recommendations which were considered by the Subcommittee re Educational Television. As a result of their deliberations, the Committee asked that the Director of Education report on the feasibility of

"A research project on the utilization of television in the schools which could be instituted by the Teaching Aids Department and the Research Department, the study to include teacher training in the use of ETV, the extent of the use of ETV by teachers, student reaction, and programming."

(Board Minutes, February 25, 1971,
p. 123, emphasis added)

On August 12, 1971, approval was given to purchase colour television equipment for a limited research project:

"In the light of the Minister of Education's guidelines and because of restrictions of budget, it is recommended that the proposed research project be limited to 5,000 students, to include junior and senior public schools and secondary schools which are representative of the various sections of the city.

Listed below are the schools recommended for the television research project:

Malvern Collegiate	1,094 pupils
Deer Park (Jr. - Sr.)	742
Lord Lansdowne (Jr. - Sr.)	719
Parkdale (Jr. - Sr.)	1,146
Sprucecourt (Jr.)	749
Williamson Road (Jr.)	<u>803</u>

TOTAL 5,253 pupils"

(Board Minutes, August 12, 1971, p. 613)

One colour set was provided for every 100 pupils and a colour videotape recorder was provided for each school. This was the context within which the following project and substudies were mounted. In keeping with the instructions of the Committee, the Teaching Aids Department arranged for the Ontario Educational Communications Authority (O.E.C.A.) to provide workshops for teacher training in the use of educational television. The Research Department planned a series of studies of television utilization and student reaction taking into account the work that Professor McLean had already done for the Committee. The existence of a special project in another set of schools made it possible to study a different type of media facility. Glenview Senior School had arranged to use its videotape recorder to record and supply programmes on request, to its "feeder" junior schools. These "feeder" schools were six junior schools located around Glenview in the Lawrence Avenue area. The total student population was 4,253 pupils. In this situation all recording and playback was in monochrome. There were no colour receivers and no increase in the number of television sets available in the schools.

Study Outline

In order to answer the questions that had been asked, several types of information were collected. Teachers were asked to complete a questionnaire at the beginning and at the end of the school year. Students were asked to complete a questionnaire at the end of the school year. Besides asking for estimates of media use, open-ended questions elicited opinions and attitudes about the usefulness of television programmes in the classroom. Logs attached to the television sets provided detailed records of set use. Interviews with principals uncovered the way in which the limited number of television sets

were allocated in each school. In addition another study, reported separately, compared the effectiveness of black and white with colour television.¹

1 Reich, C., & Meisner, A. A comparison of colour and black and white t.v. Toronto: The Board of Education for the City of Toronto, Research Department, 1972 (#110).

PROCEDURES

This section outlines the various instruments that were developed for the study and briefly describes some of the peculiar factors in the situation which could have affected the results.

Distribution of Television Sets

Delivery of the colour television sets was delayed and some rooms did not receive a colour set until mid-November. Because colour sets are more sensitive than black and white they were installed in a permanent location. Black and white sets, however, were on movable stands and could be rolled from room to room. The schools receiving colour sets did not lose the black and white sets which were already part of their equipment. The resulting distribution of sets is reported in Table 1. All the colour schools received in addition a colour videotape recorder. Malvern already had a monochrome recorder which it kept. Glenview's feeder schools each received a monochrome playback unit without recording capabilities.

It is worth noting one or two characteristics of the system. With the exception of Malvern, which had two videotape machines, it was not possible to record a programme while a programme was being played back. When a programme was being played back on the school system, it blanked out half the television channels for the entire school although any class could tune in to the playback. All the schools involved in this study had been cabled.

It will be noted that supplying colour sets doubled the availability of television in the colour schools. However, as will be seen later, many of the colour sets were in classrooms of the teachers who were most likely to use television.

TABLE 1
DISTRIBUTION OF TELEVISION SETS

	Black & White Sets	Colour Sets	Total Sets	Teacher/ Set Ratio	Student/ Set Ratio*
<u>Colour Schools</u>					
Malvern Collegiate	14	11	25	2.5	42.6
Deer Park	4	7	11	3.0	68.5
Lord Lansdowne	6	7	13	2.9	58.6
Parkdale	5	10	15	3.3	74.0
Sprucecourt	3	8	11	2.5	66.8
Williamson Road	9	8	17	2.0	41.0
TOTAL	41	51	92	2.7	55.7
<u>Special Project Schools</u>					
Glenview	9	-	9	4.9	93.0
John Wanless	6	-	6	3.8	103.2
Allenby	5	-	5	4.4	80.4
Bedford Park	6	-	6	4.2	103.5
John Fisher	7	-	7	5.6	100.0
John Ross Robertson	4	-	4	4.0	103.3
Blythwood	7	-	7	3.7	94.4
TOTAL	44	0	44	4.4	96.7

* Based on total number of sets, both colour and black and white.

In each school the videotape recorder was installed at the point where the cable distribution system was located. This made it necessary for the teacher to leave the classroom to record or playback a programme unless there was a technician or another trained person in the school to do this. Only Malvern had a full-time technician, although the senior schools had part-time technicians. The workshops included a session on the operation of a videotape recorder.

Allocation of Colour Sets

Late in the Fall, the principals of all six colour schools were interviewed regarding their assignment of colour television sets. Since they had been given complete freedom in this matter and since the sets had to be installed in a fixed location, it was important to find out what criteria they had used. In two schools the vice-principal had been given this responsibility, and it was the vice-principal who was interviewed.

The interviews indicated that in every school, in some way or other an attempt had been made to achieve equity and/or representativeness in the placement of the sets. In some cases sets were proportioned among junior and senior schools; in others they were allocated so that there was at least one for every floor, or one for every subject area or grade. At least three of the schools placed one colour set so that it would be available to teachers who would not have one in their classroom, e.g., placing a set in the cafeteria.

In some schools the teachers at each grade level or each subject area were asked to decide among themselves which room would receive the set. In other cases the principal made a decision based on his knowledge of the teacher's interest in and use of audio-visual materials. In several schools

the principal made it quite clear that those teachers who received the sets would be expected to attend the O.E.C.A. workshops which were provided.

Utilization Workshops For Teachers

Board minutes of August 12, 1971 read,

"Your Committee recommends that the Ontario Educational Communications Authority be requested to provide in-service training on the utilization of television for approximately 100 teachers during the coming school year."

At a meeting held between the Toronto Board of Education and O.E.C.A., O.E.C.A. agreed to conduct the workshops under the direction of Mr. J. B. Moriarty and Mr. J. Livesley, project consultants. On September 23, 1971, a meeting was held with principals and vice-principals from the six colour schools to outline the research project and the teacher workshops. An additional one-day session for the principals was held on October 4 to present an overview of the professional development programme and to discuss particular needs of the schools.

A series of five, three-hour, evening workshops began on November 8 and continued until December 9. These were held at the Education Centre. Approximately 40 teachers from five of the colour schools attended.

A different arrangement had been made for the sixth school, Malvern. Since Malvern had had videotape recording facilities for some time, it was decided that a different consultant from O.E.C.A. would visit the school several times to build on the experience the teachers already had. These visits continued throughout November.

The workshops held at the Education Centre were:

Session #1

"Moonvigil," an exercise in simulation, using television as the cornerstone, and leading to an understanding of what an institution is and how it functions.

Session #2

A "hands-on" session with porta-pack videotape recorder. Participants will produce short, videotaped segments using the porta-pack as a means of expression and a research tool in the learning situation.

Session #3

Television and other resources: the film, filmstrip, slide and record seen in context with the television picture.

Session #4

Technical use of audio-visual equipment: a "hardware session."

Session #5

A tour of G.E.C.A. A view of operations, tape and material resource centre, programme production.

A second series of workshops was held during January and February, 1972, for the schools in the Glenview study. The same format was followed as for the colour study with an all-day session for the principals and a series of five workshops for the teachers.

It was felt that it would be more convenient to have these workshops at John Ross Robertson Public School instead of the Education Centre as this location was closer to the schools involved.

These Glenview sessions were not as successful as the earlier ones because of several factors which mitigated against high teacher interest. The Glenview study schools were not as fully equipped with audio-visual aids since they had not received colour equipment. The teachers found it more difficult to use a system in which all equipment and materials were stored in one central location. In each school the physical difficulties of locations of "head-end" equipment in relation to classrooms posed many problems. In order to use the equipment the teacher had to leave the classroom and go to another section of the school, sometimes another floor, to playback the

videotape. This task fell to the principal, vice-principal, to one particular teacher or was left up to the individual teacher who wanted to use the programme.

In spite of these difficulties, teachers who availed themselves of the opportunity to attend the various workshops were interested, enthusiastic and took an active part in the course.

Colour Versus Monochrome

Research to date into the ways in which colour television differs in its impact from black and white has generally been limited in its scope and has not identified significant differences in the areas examined. Since the cost of colour was one of the Committee's concerns and since there were serious limitations in the majority of the few studies which have compared the two media, it was decided to do a separate, carefully designed, study on colour versus monochrome television. The results of this study are the subject of a separate report.

Television Logs

An actual record of the programmes watched seemed to be the most accurate way of assessing television use. Logs were designed in consultations with the principals (see Appendix A). A pad of these forms was fastened to each set and the forms, including nil reports, were sent in weekly from each school. Attaching the logs to the set and collecting them weekly reduced the possibility of teachers forgetting to make entries.

Videotape Logs

These logs, like the television logs were intended to provide a detailed record of use (see Appendix B). The schools in the Glenview study decided not to use them.

Questionnaires For Teachers And Pupils

A questionnaire for teachers was developed, reviewed with the principals and modified. Because many people argue as if film and television are interchangeable media and because these two media differ in availability, questions about both film and television were included.

The logs provided information about set use, the questionnaires about teacher use. Teachers were asked about their frequency of use, method of planning and attitude toward educational television. A questionnaire, focusing on the previous year, was completed by teachers early in the Fall of 1971. A modified form of the questionnaire was designed for teacher completion early in the Summer of 1972. A comparison of the two should reveal changes in the use of television as a result of the new equipment.

Questionnaires designed for students asked about the use of television and film at school, perceived usefulness of television and preference for black and white versus colour programmes. In deciding which grade levels should complete a questionnaire, the difficulty of the questions was considered. Grade 6 students were chosen from the elementary schools. Grade 9 and 10 students were chosen to represent the students from the secondary school. Students from the senior schools were involved in the colour versus black and white study. Student questionnaires were administered only in the summer of 1972. Copies of all questionnaires are contained in Appendix C.

Where appropriate, analyses have been carried out for "black and white" (i.e. Glenview) schools versus "colour" schools and by "colour" schools before and after the introduction of colour television.

RESULTS

Through the questionnaire and the logs a great deal of information was collected. It was possible, from the questionnaire, to determine use patterns and attitudes as they related to the teachers and students in various settings. The logs, on the other hand, provided similar information from the perspective of the specific pieces of equipment and also provided a record of the specific programmes that were watched.

Response Rate For Questionnaires And Logs

In using a questionnaire to collect data it is not possible to ensure the return of all the forms or complete responses to all questions. The students' responses were fairly complete as the questions were administered in a classroom situation by the teacher. The total number of students who returned a questionnaire was 1,147 (738 grade 6 students and 409 grade 9 and 10 students). Of the teachers, 84.6 per cent returned one of the two questionnaires (i.e. 373 of 441 teaching staff). Of this 84.6 per cent, 78.2 per cent answered the 1971 questionnaire and 80.2 per cent answered the 1972 questionnaire (i.e. 299 and 292 respectively) 56.6 per cent (211) answered both questionnaires. All results will be calculated on the basis of those who returned a questionnaire or, where appropriate, on the basis of those who returned both questionnaires.

The schools were generally very cooperative in filling out the questionnaires and maintaining the logs. Because the logs were returned weekly and were identified by set it was possible to monitor the returns and telephone a reminder when they did not arrive. In only two instances were television and or videotape recorder logs not kept for the full year. In these cases calculations were based on the time period for which logs were kept.

Accessibility To Television

Table 1 has already indicated the distribution of television sets among the various schools. In their questionnaire, the grade 6 students were asked whether there was usually a television set in their classroom, and 44 per cent said there was. Among the teachers who replied to the questionnaire, 31 per cent said that there was usually a television set in their classrooms. Grade 9 and 10 students were not given this question since they move from classroom to classroom for various subjects.

The teachers and students were also asked to indicate whether or not they had television at home. Not surprisingly, less than 1 per cent reported that they had no television sets in the home. A considerable number reported that they had a colour television set -- 36 per cent of the grade 9 and 10 students, and 34 per cent of the grade 6 students. Somewhat fewer teachers, 24 per cent, reported having a colour television at home.

Frequency Of Television Use (Based On Questionnaires)

Both students and teachers were asked to report, "How often did you usually watch television in school this year?". Respondents were asked to check one of the following categories:

- every day;
- two or three times a week;
- once a week;
- two or three times a month;
- once a month;
- less than once a month or never.

Table 2 summarizes the data on frequency of both film and television use. Teachers with a colour television set in their room always have it

TABLE 2

FREQUENCY OF TELEVISION AND FILM USE IN SCHOOL EXPRESSED AS A PERCENTAGE OF RESPONDENTS
(1972 QUESTIONNAIRE)

Respondents and Whether TV Set Usually in Room	Television		Film	
	Once a Week or Oftener	2-3 Times a Month or Oftener	Once a Week or Oftener	2-3 Times a Month or Oftener
<u>Grade 6 Students</u>				
Colour TV (N = 129)	97.7	100.0	11.8	42.8
Black & White TV (N = 194)	52.7	91.9	2.1	57.3
Neither (N = 410)	4.8	33.6	17.2	31.3
<u>ALL Teachers</u>				
Colour TV (N = 51)	49.0	66.6	22.6	42.6
Black & White TV (N = 36)	42.3	75.6	19.5	50.1
Neither (N = 205)	5.8	15.0	16.5	36.4
<u>Grade 9 & 10 Students</u> (N = 383)	31.6	37.6	17.2	45.7
<u>Secondary School Teachers</u> (N = 38)	---	28.5	10.5	28.9

available and most of them use it." The grade 6 students who always had a colour television set in their room had teachers who used television regularly. It was possible to locate the questionnaires of grade 6 teachers with colour television. There were three, and they were consistent with the students' replies. A few of the teachers with colour television sets had not been television users previously and they were the ones who made little use of the colour sets. Providing colour sets to these people did not really increase their use of television.

As can be seen, although the black and white sets were movable; there were some teachers who were usually able to keep a television set in the room. These teachers also made considerable use of television. The other teachers made little use of television as can be seen by both grade 6 students' replies and teachers' replies.

Among the teachers, who had colour sets in their rooms 40 per cent used it once a week or oftener, of those with black and white sets in their rooms, 42 per cent used it once a week or oftener compared to only 5.8 per cent of the other teachers (70 per cent of them used television less than once a month).

The data from the secondary school were less clear; however, some detailed analyses have provided some partial explanations. While 32 per cent of the students reported seeing television once a week or oftener none of the teachers reported using it that often. Indeed 74 per cent of the Malvern teachers used television less than once a month. Analysis of the videotape logs shows that teachers who wanted to use a particular videotaped programme often arranged for it to be shown several times so that several classes could see it; however, it appears that the teachers saw this as a single use since there was only one programme that they were using, although it was with

several classes. Furthermore, it is possible that some students were reporting watching television during lunch in the cafeteria. Also, checking the logs and questionnaires it was possible to ascertain that some teachers who made regular demands of the technician for videotapes were not among the people who completed a questionnaire from that school. There were four teachers who were moderate users and who made 61 requests of the technician during the course of the study. There were an additional eleven teachers who made slight use of television and who made a total of 27 requests during the course of the study. Because the school is on rotary it is possible for students to see much more television than the teacher reports would lead one to believe. Furthermore, an attempt was made at the secondary school to provide a colour television set for every subject area. It appears that in some subject areas the teachers had not been television users and the provision of a colour set did not change their media use pattern.

Television Use As Compared To Movie/Film Use

Both students and teachers were asked to report how often they usually watched movies or films in school. The same categories were used as for television. In classrooms where there was usually a television set, whether it was colour or black and white, films were used less often than television, see Table 2. In contrast, in classrooms which did not usually have a television set films were used oftener than television. It is important to note, however, that these teachers used films less often than did the teachers who had television sets in their rooms. In terms of non-use, 35 per cent of the teachers with a colour television and 25 per cent of those with a black and white set used films less than once a month, and of those teachers who usually didn't have a television set 44 per cent used films less than once a month. In the secondary school one sees the same phenomenon with film as with television, namely that the students report film watching more often

than the teachers report film use. Again it is suggested that the teachers using one film with several classes likely report this as a single use. It will be noted that the teachers who used television also used film. Some people are media users; others are not.

Comparison Of Media Use, 1971-72

By analyzing the data from the two questionnaires, completed by the teachers, it was possible to assess any changes in media use as a result of the additional equipment. The data are summarized in Table 3. The information is limited to those teachers who completed a questionnaire for both administrations. About three times as many teachers decreased film use as increased film use. This is not related to the presence or absence of a television set in the room. In the Glenview study film use fell similarly. Film availability had decreased because of budget restrictions and many teachers commented on the difficulty of getting films. In the Glenview study there was also a noticeable drop in television use during the 1971-72 school year. In those classrooms where colour sets were supplied there were no cases where television use decreased and over half the teachers increased their use. These were, as has been noted, mainly teachers who were media users.

Planning

Because television is a more available medium, it seemed possible that it would not require as much advance planning as film. Both questionnaires for teachers asked how far in advance they usually planned the use of a television programme or film.

The pattern of response on both questionnaires was similar (Table 4). For television, 75 per cent of the teachers (67 per cent in 1972) planned no

TABLE 3
CHANGES IN MEDIA USE 1971-72
EXPRESSED AS A PERCENTAGE OF RESPONDENTS

Respondents	Media Use	Television	Film
A - teachers in Glenview study (N = 87)	Increased Use	16.1	15.1
	Decreased Use	40.2	51.2
	Same Level	43.7	33.7
B - teachers in schools with colour sets (N = 123)	Increased Use	28.5	13.1
	Decreased Use	18.7	40.2
	Same Level	52.8	46.7
i - teachers with colour sets in their rooms (N = 39)	Increased Use	59.0	15.8
	Decreased Use	0.0	39.5
	Same Level	41.0	44.7
ii - teachers in colour schools without colour set (N = 84)	Increased Use	14.3	11.9
	Decreased Use	27.4	40.5
	Same Level	58.3	47.6

more than a week in advance. For film, it was 33 per cent (37 per cent in 1972). The relative difficulty in obtaining films, is reflected in the fact that a third of the respondents said that they had to plan for film a month or more in advance. For those teachers who answered both questionnaires, a comparison was made to see whether there had been an increase or decrease in the amount of advance planning time. The results showed that there were just about as many people who increased the length of time in advance for planning as decreased the length of time (see Table 5).

Opinions About Television And Film

In order to develop a fuller picture of media utilization, all questionnaires contained one or more open-ended questions dealing with the use of television.

(i) Reasons For Using Television And Film

In the first questionnaire the teachers were asked to indicate the reasons for using television and film: 63 per cent of the teachers answered the question relating to television and 83 per cent answered the question relating to film. The pattern of answers for the most part was almost identical for the two media. For both media, 23 per cent of the teachers said that they used it as a general supplement to the regular programme and 35 per cent said they used it as a supplement for specific items in the curriculum (36 per cent for film). There were 7 per cent of the teachers who said they used television for current events and no teachers reported using film for that purpose; 17 per cent of the teachers used film to aid in the development of a concept or a topic whereas only 7 per cent of the teachers used television for this purpose.

(ii) Usefulness of Television

In the second questionnaire, teachers were asked their opinions about the usefulness of television for their class situation. Grade 9 and

TABLE 4

HOW FAR IN ADVANCE MEDIA USE IS PLANNED
EXPRESSED AS THE PERCENTAGE OF TEACHERS CHECKING EACH CATEGORY

Length of Time	1971		1972	
	TV (N = 174)*	Film (N = 206)*	TV (N = 202)*	Film (N = 236)*
half a day	4.6	1.0	5.4	3.0
a day	6.9	2.4	8.4	5.5
a couple of days	22.4	8.3	26.7	11.9
a week	41.4	20.9	26.7	16.9
more than a week	18.2	32.0	22.3	31.8
a month or more	7.5	35.4	10.4	30.9

* Non respondents are excluded -- many of them used the media rarely and found that the question did not apply to them.

TABLE 5

CHANGES IN PLANNING TIME FROM 1971 TO
1972 EXPRESSED AS A PERCENTAGE OF THE RESPONDENTS

Planning Time	Film (N = 138)	Television (N = 168)
Increased amount of time	31	23
Decreased amount of time	29	35
No change	40	42

10 students were asked for what things television was most useful: 65 per cent of the teachers gave a positive answer; 37 per cent a negative answer and the remainder were neutral. The students, partly because of the wording of the question, tended to be more favourable in their replies with only 13 per cent making a negative statement. Some of the teachers who responded positively qualified their answers, e.g., television is useful but it would be much better if there were more good programmes. Conversely, some teachers said that videotape had improved the situation but that television was still not that useful in their class. Looking at the teachers together, both positive and negative replies, it is possible to identify the critical issues relating to television: 23 per cent spoke of the lack of good programming; 16 per cent spoke of scheduling problems; 29 per cent said that they used television either as a supplement to their regular programme or used it to help develop ideas and understanding; 7 per cent specifically mentioned that the videotape recorder improved the usefulness of television. In looking at the students' replies: 28 per cent said that television was used as a supplement to the regular programme; 40 per cent said that it was used as a supplement for specific subject areas and 12 per cent said that television was not useful or that it was seldom used.

(iii) Shortcomings In Using Television And Film

In the first questionnaire, after they had been asked for the reason they used television and film, the teachers were asked to note any shortcomings or problems in the use of these media. The pattern of answers was very different. Some teachers who did not give an answer to the question about reasons for using television answered this second question suggesting that the shortcomings were the reason for non-use. For television, scheduling was the most important problem, mentioned by 40 per cent of the teachers; 18 per cent spoke of technical difficulties; 12 per cent spoke of the lack

of good programmes and 9 per cent mentioned the lack of good equipment. For film, the major problem was the difficulty of obtaining a film when it was wanted (54 per cent). Another 18 per cent said that there was a lack of good films; this can be compared to the 12 per cent who spoke of the lack of good programmes on television. Only 8 per cent mentioned technical difficulties with film.

Of the respondents, 17 per cent said that they had no problems with film whereas only 6 per cent said that they had no problems with television.

(iv) Colour Versus Black and White Television

Students were asked whether it was worthwhile to use colour television instead of black and white television in school and were asked to give a reason for their answer. Of the grade 6 students, 64 per cent, and of the grade 9 and 10 students, 51 per cent, said it was worthwhile to use colour television. The teachers were asked for their opinion of the value of colour versus black and white television in the classroom: 66 per cent were in favour of colour television, 17 per cent were in favour of black and white television, and 17 per cent favoured neither one.

For the grade 6 students, nearly all the reasons for supporting colour were that it was possible to see "real colour" and the picture had more detail and realism. Those who picked black and white said that there was no difference between the media (40 per cent), that colour was too expensive (32 per cent) and that colour ruined your eyes (12 per cent). Among the grade 9 and 10 students who said that it was worthwhile to use colour, 66 per cent said that colour improved detail and realism; 14 per cent said that it increased interest and attention and 11 per cent said that colour improved understanding. For the students who said that it was not worthwhile to use colour, 56 per cent said that there was no difference

between colour and black and white and 24 per cent referred to the cost factor. Among the teachers who favoured the use of colour television, 43 per cent referred to its importance in improving detail and realism, 26 per cent said that it improved student interest and helped hold their attention and 16 per cent said it was worthwhile for special kinds of programmes. Among the teachers who did not feel it was worthwhile to use colour television 39 per cent said that there was no difference between colour and black and white and 56 per cent referred to the cost factor.

Television Use As Recorded On The Logs

The television logs made it possible to analyze the use of individual sets. From these logs it was possible to ascertain some of the reasons for greatly varied uses of television. The analyses made it very clear that the use of the television set was not only a function of the individual teacher but also the particular programmes they chose to use. A teacher who made regular use of Sesame Street in the classroom used the set almost daily as did another teacher who used Chez Helene. Some teachers used a series which came on weekly; when a teacher used a series such as Operation Moonvigil, the set was on daily for the length of this series.

Among the colour schools, a total of 3,210 programmes were watched and in Glenview and its feeder schools, a total of 775. Over the period of the study which ran from mid-November to the end of May it was possible to calculate the average number of viewings per television set per school. Dividing by six gives the approximate number of times the average set was turned on each month. The figures are given without identifying the individual schools -- 11.7, 12.1, 26.2, 38.6, 39.7, and 54.9. In the Glenview study the figures were 1.5, 4.3, 6.7, 7.3, 31.1, 34.8, and 40.5. There is obviously extremely wide variation in use among the schools.

Careful examination showed that the use rate was not related to the number of teachers per set, nor to the presence or absence of a technician. Where there was no technician, however, there was very little use of the videotape recorder. In two elementary schools with a technician, less than 10 per cent of the programmes played back were videotaped. In another elementary school with a technician, nearly 2/3 of the programmes watched were videotaped playbacks. In the secondary school nearly every programme watched was a videotape recording. Thus having a technician seems to be necessary but not enough to ensure that the videotape recorder will be used. Videotape seems necessary but not enough to ensure the use of television in a rotary programme.

It might also be noted that the use of a videotape recorder involves twice as much use of the equipment as does watching a programme off the air. Time must be taken to record the programme and as much time must be taken to play it back. Those schools which made extensive use of the videotape recorders obviously had learned to capitalize on this limitation because many of the programmes were played back more than once. In those schools which made limited use of the videotape recorder there was a tendency to record more programmes than they got around to playing back to the class. Of course, once the programme has been seen and recorded for use at a later time, it may turn out to be inappropriate for use with the class at the later date.

In the secondary school where they had had experience with the videotape recorder in the past, some of the teachers had begun to develop a small library of particularly good programmes which they were using for a second time.

Whether or not the videotape recorder was used a great deal was unrelated to the amount of television used in a given school. The two

elementary schools with almost identical use patterns of television were the ones who respectively made the most and the least use of videotape recordings.

As an additional note, it is worthwhile to mention the responses of the teachers to the question about the usefulness of the videotape recorders. Among the teachers in the colour schools who answered this question (N = 125), 32 per cent indicated that they made much use of the videotape recorder and 46 per cent made no use. The remainder made a little or moderate use of this equipment.

Of those teachers in the Glenview study who answered the questionnaire, 78 per cent did not find videotape useful.

Television Programming

Programming is of vital importance to the successful application of television in the classroom. To examine the type and availability of programmes the reader is referred to the Educational Television Program Schedule. This regular monthly publication by the Ontario Educational Communication Authority is a calendar of forthcoming television presentations in the channel 19 area. It includes all educational programmes from O.E.C.A. and CBC broadcast on channels 5, 9, 11 and 19. The publication provides a series index under subject categories, date and time, duration in minutes and information dealing specifically with each programme.

A second publication is available as support material to the O.E.C.A. series. It deals with material available in specific subject areas, e.g., English and the Arts; Occupational Courses, Social Sciences; Teacher Education; divisions of Elementary School, etc. The information about the programme is more detailed. It also includes suggestions for the teacher such as how to integrate the television programme effectively into a learning situation.

While there is no realistic measurement today to determine the full potential of educational television, the scope and variety of the programmes used by teachers indicates that considerable use is made of what is available.

Lack of suitable programmes was the biggest complaint of teachers. They stated that television is useful only if programmes have enough valuable content at the appropriate grade level and the content is relevant to the curriculum. Some indicated that programmes were not shown at times indicated in the guides and that listings of programmes did not provide enough information about the content.

Scheduling and timetables rated second amongst the negative responses in problems in the use of television.

Teachers who are media users tend to overcome problems related to television use and make extensive use of equipment and material. A number of teachers used television presentations once a week or more on a regular basis.

In the selection of programmes the main factor appears to be the subject itself. The programmes that were the most popular were pre-school and social science series. Pre-school programmes accounted for one-quarter of the junior school programmes and social sciences accounted for one-third of the secondary school programmes. The intermediate grade levels leaned more towards programmes on history and geography. Some subject areas for which there did not appear to be much programme material none the less had teachers who used television at least twice a month. For example, in Business Practice programmes such as "Business Finance" and "The Law and Where It's At" were used. Industrial Arts made use of programmes on energy ("Fuel Systems and Heat Engines"), structures ("Man-Made Materials" and "The Contractor Builds") and Measurement in Action.

Several teachers made special use of television presentations. "Sesame Street" was used on a daily basis in one classroom as was "Chez Helene" in another to reinforce the school's French programme.

One teacher experimented with videotaping commercials in an "awareness" experiment with grade 8 students. Another school videotaped an "Open-House" and played it back to the classes the following day.

Operation Moonvigil was presented as a special in January. The secondary school teachers recorded the series on videotape which made it possible to show the programme several times a day in a rotary-class situation.

Students of grade 9 were asked what subjects were watched most/least often on television. Responses were:

most watched -- History and Geography
Science
Languages

least watched -- Mathematics.

Home Economics and Guidance were the areas in which there was no mention of television use.

DISCUSSION AND SUMMARY

Questionnaires and logs were used as a major source of information to study television utilization. In five Toronto schools, the colour schools, colour television sets were provided at a rate of approximately 1 per 100 students. The schools already had on the average about 1 black and white set per 125 students. So besides providing colour sets, this study effectively doubled the number of television sets available. In addition, a colour videotape recorder was provided to each school and all schools were cabled. At the time of this study a senior school, Glenview, had arranged to videotape in black and white any programmes requested by its feeder schools. Some data from these schools were collected for comparative purposes. The junior schools in this Glenview study could arrange to have a programme videotaped for replay over their playback system. These schools did not have any increase in the number of television sets, they maintained approximately 1 black and white set per 100 students.

The data collected from these schools provided a detailed picture of how individual sets were used, of the specific programmes which various teachers used and made it possible to see some of the consequences which likely were attributable to the introduction of the colour television sets and colour videotape recorders into the schools. Before reflecting on the data, it is important to caution the reader against generalizing averages to all schools and classrooms. One of the most striking things noticed in the data analyses was a very great difference among teachers in their use of both film and television. Not only were there differences from classroom to classroom but also there were differences from school to school.

At the beginning of the study principals in the various schools were interviewed to see how they allocated the colour television sets. This is important information because colour television sets are not readily portable and are placed in fixed locations in the classrooms and it is unlikely in the near future that television sets will be present in schools in such abundance that there will be a set in each room. Within the various schools the principals attempted to allocate the sets so that two separate criteria were met. One was the criterion of equity, e.g., a set for every grade or every subject or every part of the school building and secondly these sets were assigned to an interested person, if there was one, in the subgroup. The findings of the study suggest, however, that the first priority should be given to those who are likely to use the sets even if it means that sets are inequitably distributed among schools and within schools.

Some fairly clear indicators relating to television use can be seen in the data. Teachers had to have a television set readily available in order to make regular and/or frequent use of television. However, those teachers who were not in the habit of making much use of television did not sharply increase their use merely because a colour television set was made available in the classroom. All teachers who had a colour television set in their classroom maintained or increased their previous level of television use. Because of the increased availability of television sets, there were some teachers who were able to have regularly a black and white set in their rooms. These teachers, on the average, made about the same use of television as did those with colour sets. It appears that the teachers who used television are media users. These teachers, with television sets in their rooms, tended to make more use of film than the teachers who did

not regularly have a television set in the classroom. This latter group who made very little use of television did however make some use of film. Since all the teachers were selecting from existing television and film resources on a voluntary basis, based on their own expertise, it would seem that they viewed both media as useful, and did not stop using film because television was readily available. While film use generally decreased in all settings this seemed to be because of reduced availability due to budget restrictions.

The provision of videotape recorders seems potentially of most importance when the students are on rotary. The availability of a technician most of the time to record and playback the programmes seemed to be a necessary but not sufficient condition for the use of the videotape recorders. One likely reason for the limited use of the videotape recorder when there were no technicians was the difficulty of physically arranging it since someone would have to leave the classroom or the office to record and playback the programme.

The general attitude of teachers and students toward colour television was similar. More than one-half preferred colour television but a sizeable proportion were in favour of just black and white television on the grounds that they did not feel colour added that much to the programme and furthermore, colour was too costly. Most of those who preferred colour felt that it added realism and detail to the programmes and some felt that it also increased student interest in the programmes.

In conclusion, the findings of this study suggest that it would be advisable to place television sets first in the classrooms of the teachers who have expressed interest in and are likely to use television. This principle should precede any attempt to equitably distribute the sets among

various classrooms or among various schools. Since the programmes used by the secondary school teachers were the ones which had been videotaped it seems appropriate to give priority to the schools where students rotate for classes when providing videotape recorders. Furthermore, the data suggest that it is pointless to supply a videotape recorder in a remote location of the school if there is not a technician available most of the time to operate it.

The provision of workshops for interested principals and teachers seems worthwhile and an activity which could well be related to the provision of new equipment in a school.

While teachers were not always able to find television programmes to meet the particular needs of their classes this also held true for films. A wide variety of programming is already available but this does not mean that it cannot be extended and expanded. This is being done in part by teachers who are developing small videotape libraries of outstanding programmes. Some teachers were creative in their selection and use of materials from television broadcasts by agencies other than O.E.C.A.

The study emphasizes the importance of accessibility of both television sets and programmes if television is to be used in the classroom. Making television accessible however, will not automatically turn a non-media user into a media user.

APPENDIX A
Television Log

1964

APPENDIX B

Videotape Log

APPENDIX C
Media Questionnaires

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MEDIA QUESTIONNAIRE FALL '71

TEACHER'S NAME: _____ SCHOOL: _____ PRESENT GRADE: _____

1. Grade taught last year? _____
2. On the average last year, how often did you use television programmes with your class? (check one)

daily	_____	2 to 3 times a month	_____
2 to 3 times a week	_____	monthly	_____
weekly	_____	rarely or never	_____
3. On the average last year, how often did you use movies/films (do not include filmstrips or slides) with your class? (check one)

daily	_____	2 to 3 times a month	_____
2 to 3 times a week	_____	monthly	_____
weekly	_____	rarely or never	_____
4. For what reasons did you use television? _____

5. For what reasons did you use movies/films? _____

6. What shortcomings or problems were there in using television? _____

7. What shortcomings or problems were there in using movies/films? _____

8. How far in advance did you usually plan the use of a television programme?

$\frac{1}{2}$ day or less	_____	a week	_____
a day	_____	more than a week	_____
a couple of days	_____	a month or more	_____
9. How far in advance did you usually plan the use of a movie/film?

$\frac{1}{2}$ day or less	_____	a week	_____
a day	_____	more than a week	_____
a couple of days	_____	a month or more	_____
10. What sources of information were most helpful in deciding what programmes to watch on television? _____

11. Please survey your class (just use a show of hands)

Number of pupils without any television set at home	_____
Number of pupils with colour television set at home	_____
Number of pupils with more than one television set at home	_____
Total number of pupils in class	_____

Additional comments which you might wish to make regarding any matter relating to the use of television and/or movies/films are requested whether they be comments on technical, aesthetic or content aspects. (Use back of sheet please.)

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MEDIA QUESTIONNAIRE FOR TEACHERS JUNE '72

TEACHER'S NAME: _____ SCHOOL: _____

PRESENT GRADE OR SUBJECT: _____

1. Do you have a colour television set at home? yes ___ no ___

2. Was there usually a television set in your classroom at school this year?
 ___ yes, a black and white set
 ___ yes, a colour set
 ___ no

3. On the average, during this school year, how often did you use television programmes with your class or classes? (check one)
 daily _____ 2 to 3 times a month _____
 2 to 3 times a week _____ monthly _____
 weekly _____ rarely or never _____

4. On the average, during this school year, how often did you use movies/films (do not include filmstrips or slides) with your class or classes? (check one)
 daily _____ 2 to 3 times a month _____
 2 to 3 times a week _____ monthly _____
 weekly _____ rarely or never _____

5. What is your opinion about the usefulness of television for your class situation?

6. What is your opinion about the value of colour television versus black and white television in the classroom?

7. How far in advance did you usually plan the use of a television programme?
 ½ day or less _____ a week _____
 a day _____ more than a week _____
 a couple of days _____ a month or more _____

8. How far in advance did you usually plan the use of a movie/film?
 ½ day or less _____ a week _____
 a day _____ more than a week _____
 a couple of days _____ a month or more _____

9. To what extent has videotape helped you use television this year? _____

If you have additional comments please use the back of this page; thank you for your help

MEDIA QUESTIONNAIRE FOR GRADE 9 AND 10 STUDENTS

STUDENT'S NAME: _____ GRADE: _____ CLASS: _____

1. How many black and white television sets do you have at home? _____

2. How many colour television sets do you have at home? _____

3. How often did you usually watch television at school this year? (check one)
 every day _____ 2 to 3 times a month _____
 2 to 3 times a week _____ once a month _____
 once a week _____ less than once a month or never _____

4. In what subject or subjects was television used most often _____
 In what subject or subjects was television used least often _____

5. How often did you usually watch movies/films (do not include filmstrips or slides) in school this year? (check one)
 every day _____ 2 to 3 times a month _____
 2 to 3 times a week _____ once a month _____
 once a week _____ less than once a month or never _____

6. In what subject or subjects were films used most often _____
 In what subject or subjects were films used least often _____

7. For what things is television most useful in school? _____

8. Is it worthwhile to use colour television instead of black and white television in school? Yes ___ No ___ Why? _____

MEDIA QUESTIONNAIRE FOR GRADE 6 STUDENTS

STUDENT'S NAME: _____ SCHOOL: _____

1. How many black and white television sets do you have at home? _____

2. How many colour television sets do you have at home? _____

3. Was there usually a television set in your classroom at school this year?
 ___ yes, a black and white set
 ___ yes, a colour set
 ___ no

4. How often did you usually watch television in school this year? (check one)
 every day _____ 2 to 3 times a month _____
 2 to 3 times a week _____ once a month _____
 once a week _____ less than once a month or never _____

5. How often did you usually watch movies/films (do not include filmstrips or slides) at school this year? (check one)
 every day _____ 2 to 3 times a month _____
 2 to 3 times a week _____ once a month _____
 once a week _____ less than once a month or never _____

6. Is it worthwhile to use colour television instead of black and white television in school? Yes ___ No ___ Why? _____

