

THE UNIVERSITY OF MANITOBA

A SURVEY OF TELEVISION UTILIZATION
IN MANITOBA SCHOOLS

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF EDUCATION

DEPARTMENT OF CURRICULUM
(MATHEMATICS AND NATURAL SCIENCES)

WINNIPEG, MANITOBA

JULY, 1977

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ACKNOWLEDGMENTS

Grateful thanks are expressed to the following persons without whose help this thesis would not have been possible.

Advisor and Thesis Committee Chairman:

Dr. Denis Hlynka

Committee Members:

Dr Lauren Sandals
Professor Lorna Campbell

University of Manitoba:

Professor Henry Schulz
Mr. Earl Enns
Mr. Elmer Hywarren

Manitoba Department of Education:

Mr. Reevan Cramer, Assistant Deputy Minister of Education
Mr. Glen Harrison, Supervisor, School Broadcasts
Ms. Joan McLaren, Director, Instructional Media Services
Mr. John Tooth, Librarian
Mr. Michael Yakimishyn, Education Data Services
Mr. Royden Lee, Director, Teacher Certification and Records

St. James-Assiniboia School Division:

Mr. Wayne Warren

Winnipeg School Division:

Mr. Don Vickers

and to those teachers who responded to the survey.

ABSTRACT

The purpose of this study was to assess the use and identify some of the factors related to the use of educational television in Manitoba schools by a modified replication of a study done by Steely in Kentucky in 1973. A random sample of 300 teachers (K-12) was asked to complete a 56 item questionnaire. The data were collected by mail during January, 1977.

The first part of the questionnaire dealing with demographic information was examined with the intent of arriving at some generalizations about those persons now using television in their teaching. The investigation was aimed at determining whether any particular pattern emerged as to type of television used, how television was used, frequency of use, grades and subjects in which used, problems encountered in the use of television and suggestions for more effective use. In addition, the type of television training received by teachers and teacher attitude were surveyed.

A 77.3 percent response to the questionnaire was received. Of those, 46 percent used television. Results showed that there was no significant relationship between a teacher's age, number of degrees, total years of teaching experience, location of school (Winnipeg, suburban Winnipeg or rural), TV training received and use of television.

There was, however, a significant relationship between teacher opinion as to student achievement via ETV, cost

justification of TV equipment in their school and use of television. Those teachers who used television felt that students learned from it. The television users felt that the TV equipment in their schools received sufficient use to justify its cost.

There was no significant relationship between a teacher's age, number of degrees, total years of teaching experience and television training received by teachers. There was, however, a significant relationship between location of school and TV training received. More suburban Winnipeg and rural teachers indicated training than did Winnipeg teachers.

There was no significant relationship between a teacher's age, total years of teaching experience, location of school and use of School Broadcasts. Although there was a significant relationship between number of degrees and use of School Broadcasts, no consistent pattern was determined. Respondents indicated a preference for off air School Broadcasts as opposed to videotaped programs.

There was no significant relationship between television facilities and location of school. There was, however, a significant relationship between operational knowledge of TV equipment and location of school. A greater percentage of respondents from suburban Winnipeg and rural Manitoba indicated they knew how to operate the TV equipment in their schools than did Winnipeg teachers.

Teacher opinion as to apparent student achievement from TV was positively related to teacher opinion of cost justification of TV equipment in their schools. The majority who thought that ETV facilitated student achievement also thought that the use of TV equipment in their school justified the money spent. This majority were TV users.

Conclusions and recommendations, based on the results of this survey, were included.

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CHAPTER I
INTRODUCTION

OVERVIEW

The purpose of the study was to survey the educational television utilization practices and procedures of Manitoba teachers.

The data reported in this study were collected in the Province of Manitoba during January, 1977.

It is hoped that the results of the survey will provide information concerning the state of educational television in Manitoba schools. The data collected may serve as the basis for recommendations for possible future action.

IMPORTANCE OF EDUCATIONAL TELEVISION

Research has shown that television is effective as a teaching method.

"In the great majority of comparative studies, there is no significant difference between learning from television and learning from conventional teaching; and that where there is a significant difference, it is a bit more likely to be in favor of television than of conventional instruction" (Chu and Schramm, 1967, p. 6).

Similar findings have been reported in over 400 such experiments in the United States. (Schramm, 1964, p. 11).

It is probable that these findings have influenced the development of educational television (ETV) in Canadian schools. Knowles wrote:

"The growing acceptance of television as an important adjunct to Canadian education would seem to indicate that there is a strong desire to improve the communication or learning process through technology" (Rosen, 1967, p. 3).

However, many teachers today have access to television without an accompanying understanding of its application. Their unawareness may produce less-than-successful results.

Those in the field of education have become increasingly concerned about evaluating the results of various types of instructional programs employed in the schools. Investigation and analysis of results may lead to wiser decisions, the aim being to improve methods of instruction which can facilitate the learning process and maximize the full potential of television. Educators with a knowledge of television's capabilities are in a better position to use this medium to effectively teach Canadian students.

HISTORICAL BACKGROUND

The British North America Act, Canada's Constitution, places education as the responsibility of each of the ten provincial governments. "Broadcasting, on the other hand, is constitutionally a function of the federal government" (Lambert, 1963, p. 7). All Canadian broadcasting is subject to the Canadian Radio-television and Telecommunications Commission which reports to Parliament through the Secretary of State.

Canadian television began on a regular basis in September, 1952. Television operates on a national level as well as a provincial level. Nationally, the Canadian

Broadcasting Corporation (CBC) produces instructional television. The CBC is a public corporation established under the authority of the Radio Broadcasting Act of 1936 and is licensed by Parliament. In 1954 the CBC initiated its first educational television broadcast, an outgrowth of the national school radio broadcasting series begun in 1942. The Media Program Committee of the Council of Ministers of Education Canada oversees the national school broadcasts.

Provincially, school broadcasts are produced and telecast within individual provinces. Both national and provincial educational television use the CBC facilities. In the division of responsibilities provincial educators supervise pedagogical aspects while the production technology falls to the CBC. Manitoba also cooperates with other provinces to produce programs related to specific curricula as opposed to the more general nature of the national school broadcasts.

Television in Canadian schools began in 1954. Children all across Canada viewed programs originating from Toronto studios. The successful results of this experiment indicated that "television programmes jointly planned and executed by teachers and broadcasters have a definite contribution to make as a teaching aid" (Lambert, 1963, p. 194).

School broadcasts soon developed in other provinces and became an additional method of instruction in our schools. Today national and provincial telecasts reach elementary, junior and senior high schools. A variety of subjects are included in the many programs in both English and French.

Teachers are informed of the broadcast schedule by means of a printed guide available free upon request from their local Department of Education.

In addition to the national level of CBC school telecasts, ETV operates on a provincial level. Examples of provincial television authorities include: the Alberta Educational Communications Corporation (ACCESS), the Saskatchewan Educational Communications Corporation (SASK-Media) and TV Ontario, formerly the Ontario Educational Communications Authority (OECA). Manitoba has no such central body.

On a local level of educational television, examples of dial access broadcasting in Canada are noteworthy. Perhaps the most elaborate system that Canada has known was Information Retrieval Television (IRTV) in Ottawa. This cable system was installed experimentally by Bell Northern Research in 1968 and funded by the Province of Ontario.

"The IRTV experiment was set up because it was assumed that easy and rapid access to a large library of films and videotapes would lead to more and varied use of the programs by teachers and that this would make a significant difference to the quality of classroom instruction and learning" (McLaughlin, 1972, p. 3).

The Ottawa Board of Education in a period of fiscal crises decided in 1971 not to continue to maintain this project.

Another local format for ITV utilization is Instructional Television Fixed Service. Examples of ITFS include a 6 channel system in Timmons, Ontario owned and operated by the separate school system and a 4 channel system owned and operated by the London Board of Education in London, Ontario.

Manitoba also has an ITFS system located in St. James-Assiniboia. An explanation of this system is found on page 9.

MANITOBA: A VARIETY OF TELEVISION SYSTEMS

Educational television in Manitoba comprises a variety of different systems. Three examples illustrating this diversity will be discussed: (a) School Broadcasts, (b) Instructional Television Centre, and (c) bicycling systems.

SCHOOL BROADCASTS

If a uniform system of TV broadcasts for Manitoba schools were identified, school broadcasts would probably be named. These are perhaps the most commonly known and used form of ETV. Their programs are available off air and on videotape.

These television broadcasts began as educational radio in the 1940's. They are produced by the School Broadcasts Branch of the Manitoba Department of Education and the CBC Winnipeg. The basic function of school broadcasts is the continued planning, preparation and production of daily radio and television programs from mid-October until the end of May. Radio programs are broadcast from 2:00 to 2:30 p.m. every afternoon. Television programs are telecast from 10:00 to 10:30 a.m. each morning, Monday through Friday.

The following statistical breakdown best illustrates the program production. In the 1976-77 school year, 187 English television programs were presented. Of these Manitoba was totally responsible for 97 (22 new productions, 31 repeats, 44 procured). Six feature length films were also produced.

Of the remaining 90 programs, responsibility is shared for national programs with Western provinces and arrangements for loan, or rental are made with the British Broadcasting Corporation, the National Film Board, National Instructional Television, and other Provinces. In addition, school broadcasts coordinates the airing of French language television programs over station CBWFT. During 1976-77, 17 feature length French films were shown.

Programs are produced in cooperation with the CBC. School broadcasts are responsible financially for the direct costs (script writers, performers, costumes, etc.) while the CBC assumes the indirect costs (producer, technicians, equipment). CBC pays approximately four dollars for each one dollar spent by school broadcasts. The production budget for school broadcasts for 1977-78 is just over \$100,000 for both radio and television. Costs for a half-hour television show vary drastically depending upon the type of program. A half-hour program costs the Department of Education approximately \$2,500. A film, produced by school broadcasts, costs around \$6,000.

A continuing concern is the provision of broadcasts relevant to the classroom. When creating a program, members of school broadcasts seek guidance from teachers and curriculum consultants to ensure that the program content is educationally sound and relevant. Only when an idea has been thoroughly discussed and approved by this branch is a writer employed to develop the script for television.

To coordinate broadcasts nationally and regionally most programs must be planned at least 18 months in advance. Consequently many of the programs must be of a general nature. By producing its own films, school broadcasts are able to reduce the period of time between conception of an idea and airing of the program. Taking this route assures programs which have greater relevance to the education of Manitoba students.

Support materials in the form of manuals containing information on ideas for use of programs, calendars, song sheets to supplement music programs, poetry folders and French language scripts and manuals, and Art Kits based on the "It's Fun to Draw" series, are provided free to schools by this Department (Harrison, 1975, p. 37).

A major undertaking of school broadcasts has been the taping of programs for use at the convenience of the teacher and a time most appropriate for classes. In keeping with what is now commercial broadcast practice, no school broadcasts are aired "live" but all are taped then shown. Tapes may be procured by teachers in one of two ways. A blank tape may be sent to the School Broadcasts Branch for dubbing then picked up or returned by mail. Or tapes may be bought by a purchase order with that school system being billed by the distributor. During 1975-76, 2,600 videotapes were dubbed. 90 percent of these were on $\frac{1}{2}$ inch videotape with the remaining 10 percent on $\frac{3}{4}$ inch videotape. Of the 2,600 30 percent were for elementary schools, 70 percent for secondary schools.

Of the total, 50 percent were requested by rural schools and 50 percent by urban schools. Several of the Winnipeg school divisions dub school broadcast programs for their schools. These are in addition to direct teacher requests to this branch. The following table, prepared with information supplied by the School Broadcasts Branch, illustrates dubbing by divisions during 1975-76.

TABLE 1

SCHOOL BROADCAST TAPES DUBBED BY WINNIPEG SCHOOL DIVISIONS - 1975-76	
SCHOOL DIVISIONS	NUMBER OF TAPES
St. Vital	1600
Fort Garry	750
St. James	642
Winnipeg	500
Transcona	60
River East	--
Lord Selkirk	--

As of March 31, 1977, 431 tapes had been dubbed and 18 videotapes had been purchased.

During 1975-76, 5,600 teacher evaluations of off air programs were received. On the basis of these evaluations, school broadcasts concluded that (a) there is greater usage in rural areas as compared to urban areas (3 to 1), (b) there is a larger elementary audience as compared to secondary (18 to 1), and (c) the television audience is greater when compared to radio (3 to 1). However they note that requests for audio

tapes outnumber requests for videotapes by 9 to 1. This is probably due to a lack of video playback equipment available.

INSTRUCTIONAL TELEVISION CENTRE

An example of another ETV system in Manitoba is the Instructional Television Centre, located in Sturgeon Creek Regional School in St. James-Assiniboia. This ITFS closed-circuit transmission system operates 3 TV channels simultaneously. An audience of 600 classroom ranging from Kindergarten to Grade 12 has access to over 1100 programs. The Centre provides a library of videotapes which are readily available to teachers. Microwave transmitters carry requested programs to classrooms throughout this division. All secondary schools in the division are wired to this network. "This 'rapid-transit' ITV service permits efficient use of the centralized TV library by reducing 'time-out-of-circulation' since program tapes do not actually leave the Centre" (Warren, 1976, p. 3). Bookings are arranged in advance by teachers telephoning the Centre. "By using several videotape recorders at once the Centre can transmit three separate programs at any instant and is able to start three more programs as soon as those "on-air" are finished....50 to 60 separate requests can be handled daily" (Warren, 1976, p. 3).

BICYCLING SYSTEMS

Another different system developed in 1960 in the Fort Garry School Division was the Bicycling System. Over 1,200 videotapes (1975) on a full range of subjects make this the

largest bicycling system in Manitoba. 24 hour delivery offers flexible scheduling. The St. Vital School Division also offers bicycled dubs to teachers.

STATEMENT OF THE PROBLEM

The general purpose of this study was to examine the current state of educational television in Manitoba through survey research techniques. More specifically the study was to:

1. survey 300 Manitoba school teachers (K-12) representing school divisions 1-6 and 8-48 (there is no division 7) in Manitoba to determine their television utilization practices in the classroom

2. identify factors related to utilization practices

3. make possible recommendations for future development.

It was hypothesized that the following demographic information:

1. teacher's age

2. number of degrees

3. years of teaching experience

4. location of school

was related to the following factors:

1. television usage

2. television training

3. School Broadcast utilization

4. teacher attitude toward: (a) student achievement via ETV and, (b) cost justification of television equipment in their school.

This study also proposed to indicate the frequency of:

1. how television is used in the classroom
2. types of television utilization including School Broadcasts, video tapes, image amplification and teachers' and/or students' productions
3. grades in which used
4. subjects in which used
5. types of television training received by teachers
6. problems in television utilization encountered by teachers
7. factors to encourage teachers to make more effective use of television.

HYPOTHESES TO BE TESTED

From the preceding stated problem, a total of five hypotheses were derived. These were:

1. The utilization of educational television (dependent variable) will vary significantly according to the following independent variables: (a) teacher age, (b) number of degrees, (c) years of teaching experience, (d) location of school (Winnipeg vs. suburban Winnipeg vs. rural Manitoba), (e) television training and (f) teacher attitude. This study was concerned specifically with teacher attitude toward student achievement via ETV and cost justification of ETV equipment in their school.

2. Training in the use of ETV (dependent variable) will vary significantly according to the following independent

variables: (a) teacher age, (b) number of degrees, (c) years of teaching experience, (d) location of school.

3. Utilization of Manitoba School Broadcasts (dependent variable) will vary significantly according to the following independent variables; (a) teacher age, (b) number of degrees, (c) years of teaching experience, (d) location of school, (e) television training and (f) type of broadcast (off air vs. videotaped).

4. Television facilities and teacher knowledge of how to operate the facilities in their school will vary significantly depending upon location of school.

5. Teacher attitude toward student achievement via ETV will vary significantly according to teacher attitude toward cost justification of television equipment in their school.

In addition to these hypotheses, it was proposed to indicate, for descriptive purposes, the following information: frequency of TV, type, grades, subjects, training, problems and suggestions for more effective use of television.

SIGNIFICANCE OF THE STUDY

Since the primary function of any school program is to facilitate the learning process, information concerning the more effective use of television as an instructional tool would be significant to the improvement of education.

Other ETV surveys have been conducted before this one. A 1975 media survey by the National Film Board of Canada focused on all media in education across Canada. The Forward of Report 1 stated, "very little national survey data

regarding the utilization of audiovisual media has been available in the past". A 1973 study by Steely reported on ITV in Kentucky. In a Canadian study Malhotra (1974) investigated the usage and effectiveness of ETV in Dartmouth, Nova Scotia. But no study has examined systematically the state of the art in Manitoba. There is a need for the examination of ETV utilization practices at all levels: international, national, provincial and local.

There is reason to believe that television is not fulfilling its potential. "With minor exceptions, the total disappearance of instructional television would leave the educational system fundamentally unchanged" (Killian, 1967, p. 81).

Programming cannot proceed without a current knowledge base. Research tells us what television can do. Surveys have pinpointed utilization patterns in other locales. ITV in Manitoba can only serve its public if emphasis is upon service. That service can be improved only if one knows what, if anything, needs to be improved.

Television utilization patterns in Manitoba may be similar to patterns in other provinces in Canada and in the United States. To this extent, this survey is committed to drawing upon such extant literature and research.

The final result should be a better appreciation of what instructional television is contributing to Manitoba today. The implications for what television can do are the next step beyond this present study.

DEFINITION OF TERMS

Terms used in this study are defined as follows:

1. Educational Television (ETV) is defined as "(1) Non-commercial broadcasting transmitting the broad range of educational, cultural, and entertainment programs and also programs designed for use by schools in connection with regular school courses; (2) any broadcast or closed-circuit television program related to some form of instruction or peripheral enlightenment" (Good, 1973, p. 593). ETV programs are broadcast primarily to enrich, support and supplement the educational process. Support comes from the government, contributions and foundations.

2. Instructional Television (ITV) is defined as: "Lesson-planned programs, systematically developed and conducted largely in school systems or universities; may be offered on commercial television or ETV, UHF, ITFS, or standard microwave, open (broadcast) and/or closed-circuit television" (Good, 1973, p. 593). Educational Television and Instructional Television are used in the same context in this study.

3. School Broadcasts as used here in this paper refer to television programming aimed at the pupils in school covering subject matter compatible with school curricula produced by the Manitoba Department of Education. School Broadcasts may be off air or taped.

4. Teachers are those persons surveyed in this study working directly with students in an instructional capacity from Kindergarten to Grade 12. There are some 12,000 teachers in Manitoba.