PORTABLE VIDEO UTILIZATION IN POST-SECONDARY

EDUCATION ON MONTREAL ISLAND


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A THESIS

in

The Department

of

Education


Presented in Partial Fulfillment of the Requirements for
the Degree of Master of Arts at
Sir George Williams University
Montreal, Canada


May, 1973

# ABSTRACT

## PORTABLE VIDEO UTILIZATION IN POST-SECONDARY EDUCATION ON MONTREAL ISLAND

by

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This study reviews the literature on two areas of interest to the educational technologist, the effective use of present audio-visual technology and the promise of the video cassette. To determine to what extent students are allowed and encouraged to express themselves on video-tape and to determine if plans are being made to adopt the video cassettes, a survey was made of the librarians and the media directors of thirteen post-secondary educational institutions on the Island of Montreal.

The results show: that students are being allowed and encouraged to use video, that promotion of portable video emanates from subject departments and media centres and not from libraries, that libraries will supply cassette playback equipment, that most media director supervised videotaping is done on studio equipment, that plans call for more portable than studio video equipment purchasing and that five of the thirteen institutions now use a video cassette system.

In the light of these results, it can be concluded that students in these institutions do have access to port-able video-taping equipment and that this accessibility

is likely to continue and increase when the video cassettes are more available.

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# CHAPTER ONE

## STATEMENT OF THE PROBLEM WITH REFERENCE TO THE LITERATURE

### INTRODUCTION

This study is motivated by curiousity arising from the ever-increasing reference to the emerging video cassette technology in the professional literature. Claims are made for this technology which are worthy of investigation. In conjunction to these claims, however, it is particularly useful to investigate the effective use of present audio-visual technology prior to surveying present trends with respect to videotaping and the video cassettes.

This chapter seeks to review the effectiveness of present audio-visual technology and the promise of the video cassette as recorded in the literature.

### EFFECTIVE USE OF PRESENT TECHNOLOGY

In 1967 Unesco published <u>The New Media: Memo To Educational Planners.</u> This report was based on a research project under the leadership of Wilbur Schramm. In answer to the question "How effective are the new media proving to be?" the findings were:

> Given a reasonably favourable situation, a pupil will learn from any medium--television, radio, programmed instruction, film, film strips, tape recordings or others. This has been demonstrated by hundreds of experiments......significant differences almost never appear.[1]

The chapter concludes with a warning that media programs

do not necessarily work--this is determined by how they are designed and used.

Reporting on research on television effectiveness since Schramm's earlier findings in 1962,[2] Lawson concluded that television is being used more effectively and its benefits better exploited.[3] However, in the same year, 1970, Breitenfeld, of the Academy for Educational Development, deplored;

> ...the inflexibility of the American educational structure which has not yet committed itself to the full exploitation of the possibilities of instructional television.[4]

The reasons for the failure of education technology to be successfully applied follow closely those given by Miles.[5] for the failure of innovation in education. These are: conservative reaction, inadequate planning, insufficient attention to preparing teachers for the change, lack of commitment by teachers or community, and deficiencies in resources or power.

Hoban,[6] in his contribution in TO IMPROVE LEARNING, outlines eight reasons for the non-application of instructional technology. These have been condensed by Torkelson:[7]

1. An overexpectation of effects from gadgets and processes adapted to instruction from some other area, such as industry.

2. The use of measurement techniques for media which are insensitive to dimensions of human response that may be of greater importance than the "behavioral objectives" they are designed to measure.

3. A scientistic outlook which ignores the importance and operation of intuition in classroom

interaction and which prescribes narrow be-
havioral objectives.

4. Institutional inertia in change, innovation,
   and nonadaptability when innovation is tried.

5. An irrelevance of much of learning psychology
   to classroom teaching situations as they exist
   in reality.

6. A curriculum frequently misphased, overintellec-
   tualized, and irrelevant to individual needs and
   the social milieu of large numbers of students.

7. An overextended preparatory education and an
   underdeveloped continuing education.

8. A narrow exclusiveness in the educational est-
   tablishment, including the U.S. Office of
   Education, ignoring activities such as educa-
   tional and training programs of business and
   industry.

In commenting upon the low quality and the low
quantity of technology in education, the Commission in
To Improve Learning offers the following reasons:

1. Indifference or antipathy toward using tech-
   nology in education.

2. Poor programs available via television, pro-
   grammed instruction, and through other media.

3. Inadequate and inappropriate equipment.

4. Inaccessability to instructional materials.

5. Teachers not trained in instructional tech-
   nology.

5. Media specialists excluded from central plan-
   ning.[8]

Through the submissions made to it by many authorities in
educational technology, the Commission's is perhaps the most
knowledgeable voice calling for change.

In the literature are to be found other writers

with more specific comments on the low quality and low
quantity of the technology and on the reasons for the non-
application of the technology. Some say that teacher atti-
tudes are not conducive to educational technology.[9] Some
say that teachers are not trained and helped enough.[10]
Others give their reasons why film (especially) is not
applied more.[11] Of the latter group, some of the reasons
given are:

>     poor design--daylight screens which need darkness
>             --16 mm projectors difficult to operate
>             --reels of film do become unwound
>
>     inaccessibility--a major problem. The process is
>             annoying and time-consuming and alienates
>             many teachers.
>
>     advance request and low probability--complex equip-
>             ment, screen, darkening, getting and
>             setting-up a projector (or moving to the
>             A-V room)
>
>     obsolescence--16 mm is equal to manuscript chained
>             to the monastery reading table and 8 mm
>             to the book liberated and made ubiquitous.

Regarding the last comment, it should be noted that a recent
survey[12] showed that 8 mm films have failed to satisfy the
need for which they were intended. In his study on teacher
resistance, Van Wyck (c.f. footnote 11) logically concludes
that,

>     Resistance is inevitable if equipment is not tech-
>     nically reliable, easily obtainable and relatively
>     simply to operate.

In the light of the foregoing, one can easily agree with
Bernard Trotter's finding that,

>     ...educational technology (in the sense of various
>     kinds of hardware applied to the production and
>     delivery of instructional materials) has not been

fully and effectively used in universities (or any
where else in the educational system for that
matter)...[13]

While it is outside the scope of this study to deliberate
on whether the problems of education today are the result
of technology or the result of technology not rising to
the demands of the occasion--or the effect preceding the
cause, as McLuhan may suggest[14]--it is quite apparent that
technology is just not getting to the learner and:

> ...education is in fact at the crossroads. It must
> put its house in order to meet current demands. It
> will not solve basic instructional problems with a
> perpetuation of the same organizational structure,
> curriculum, and processes that have been standard
> for years. The pressures from the general public
> and from special interest groups for instructional
> improvement cannot be ignored.[15]

We are still in the process of the "profound mutation"
which Rene Maheu, Director-General of Unesco, spoke of in
1967,

> ...education must also undergo a radical mutation
> on a scale which can hardly as yet be fully ap-
> preciated.[16]

A manifestation of this mutation is a recent recommendation
by the Electronics Industry Association (USA) that there
be two communications networks to the home in the future.
One network would carry video, telephone switching-video,
facsimile, and computer reception. The other would carry
broadcast TV, first class mail, educational material, local
entertainment and information programs.[17]

Another manifestation of this mutation, this author
believes, is the development of the video cassette.

## THE PROMISE OF THE VIDEO CASSETTE

### Introduction and Description

About two hundred years ago the Scottish poet Robert Burns wished:

> O wad some Pow'r the giftie gie us [18]
> To see oursel's as others see us!...

With videotape, the wish of Burns has been granted. We now have the means of seeing ourselves as others see us. Michael Shamberg describes this as "self-processing" and reports a positive reaction from young and old. He is of the opinion that;

> Making videotape with and about yourself and your friends is first of all just plain fun. But it's also a tool for knowing who you are and combating the superstar behavioural patterns of the media. With tape, being yourself has value in itself.[19]

In this discussion, a standard portable videotape recorder (PVTR) and a portable videotape recorder utilizing cassetted videotape are considered to be able to serve the same function. In the former, the tape is transported "Reel-to-reel" and in the latter the tape is controlled by a cassette. The term "Encapsulated Video System" (EVS) is used in this study when reference is made to this latter system.[20]

Common to all EVS are encapsulated software, a machine to record on and/or replay the software and a connection to a television set or monitor. As can be seen from Table 1, five different recording mediums are being developed for the EVS. These are; coded film, super 8 mm film, vinyl tape, vinul disc and magnetic tape.

## TABLE 1

TENTATIVE LIST OF EVS MEDIUMS, PRODUCT
NAMES AND COMPANY OR COMBINE NAMES.

| MEDIUM | PRODUCT NAME | COMPANY NAME |
|---|---|---|
| CODED FILM | EVR | MAINICHI |
| | | MITSUBISHI |
| | | HITACHI |
| VINYL TAPE | SELECTA VISION | RCA |
| VINYL DISC | TELDEC | TELEFUNKEN & DECCA |
| | VLP | PHILIPS |
| | DISCO-VISION | MCA |
| | —— | RCA |
| | —— | CBS |
| | —— | ZENITH |
| S8mm FILM | COLORVISION | NORDEMENDE |
| | VIDICORD | VIDICORD HOLDINGS |
| | —— | BELL AND HOWELL |
| | | SYLVANIA |
| | CVR | KODAK |
| | | FUJI |
| VIDEOTAPE | INSTAVIDEO | TOSHIBA AMPEX* |
| | CARTRIVISION | CARTRIDGE TV INC. |
| | VIDEOCASSETTE | SONY |
| | VCR | PHILIPS |
| | MAGTAPE | RCA |
| | CONCORD | CONCORD COMMUN. SYSTEMS |
| | PANASONIC | MATSUSHITA |
| | WOLLENSAK | 3M(3/4" RCA, 1/2" PHILIPS) |
| | IVC | INTERNATIONAL VIDEO CORP. |
| | JVC | VICTOR CO. OR JAPAN |
| | —— | TELEFUNKEN |
| | | GRUNDIG |
| | | BOSCH |
| | | THORN |
| | | LENCE & STUDER |
| | | ZANUSSI |
| | | SHIBADEN |
| | | AKAI |
| | | SANYO |
| | TEAC | TEAC CORPORATION |
| | NEC | NIPPON ELECTRIC |
| | —— | UNITRA (WARSAW) |

* It is reported that Ampex is abandoning Instavideo but
that others will modify and market the system.[23]

Of these five mediums, only one--magnetic tape--
offers a record capability. The others are playback only
mediums. Some of the magnetic tape systems are playback
only, some will replay and record "Off air" only and others
have full camera/"Off air"/replay capability.

The Struggle for the EVS Market

Table 1 gives a tentative listing of the companies
and combines which are vying for the world-wide market for
the EVS. At this stage, it is difficult to determine pre-
cisely which companies are not manufacturing but are having
equipment produced under their name.

Companies which are known to be selling the EVS
developed by another are: Admiral, Emerson, DuMont, Teledyne
Packard Bell, Montgomery Ward, and Warwick Electronics
(which manufactures for Sears Roebuck) all of which will
sell the Cartrivision EVS and Bell and Howell, Magnavox,
Westinghouse and Electrohome who will sell the RCA Magtape
EVS.[21] Also, there are other companies which are reported
to be developing their own system but information on these
is lacking.[22] It seems safe to say that, with the companies
listed above and on Table 1, there are no less than fifty-
two international companies competing for the market in EVS.

The State of the Art-Hardware

As very few of the EVS have been released to the
market as yet, it is premature to attempt an evaluation of
anything connected with the EVS except the concept of the
EVS. The one system which is being used locally, the Sony
3/4-U system, has, for two of the users, proven to be tech-

nically troublesome.[24] Equipment prices and delivery dates are presently unreliable.

The most frustrating problem which the potential purchaser has to confront is that, of incompatibility. With the exception of the "The Sony group" which uses a 3/4 inch magnetic tape and "The Philips group", of fourteen European manufacturers, using a 1/2 inch magnetic tape, all of the systems are incompatible.[25]

At present, the development of EVS may be divided into two systems, the Replay Only EVS and the Record EVS. The Replay EVS include all of the systems with the exception of those magnetic tape systems with record mode. The variety of media developed by the various companies to-date includes coded film, vinyl tape, vinyl disc, super 8mm film and videotape. A description of each medium follows:

Coded Film--This has been given the product name of EVR, for Electronic Video Recording. EVR was the first of the EVS to be available and is presently being marketed by three companies--see Table 1. EVR has been criticised because it has replay capability only.[26] However, it does lend itself well to the storage of print also.

Vinyl Tape--Only one company to-date has produced an EVS using vinyl tape as a medium. This was produced by the RCA Victor Company under the name of SelectaVision and it projects a holographic image. Technical problems seem to be keeping this EVS off the market but the company (RCA) is proceeding with both disc and magnetic tape systems. The holographic image is especially well suited to skills train-

ing--for example, aircraft piloting.

Vinyl Disc--The disc EVS was first developed by Teldec
and it was immediately apparent that this was the cheapest
of the Replay EVS. Technical difficulties have delayed
the Teldec system and several rivals have come forward. The
latest disc systems to be demonstrated are the VLP system of
the Philips Company and the Disco-Vision system of the MCA
Company. It appears that from the disc systems one can
expect the following features; a player price of $500 or
less, over six hours of playing time with a stack of ten
discs, a four second disc change, a price of two to ten
dollars per disc--depending on length and content, freeze
frame, digital counting, forward search at thirty million
bits per second, fast forward, frame to frame forward crawl
and random access possibility.[27] The disc systems have
their strongest appeal in their ease of handling, impervious-
ness to dirt, cheapness and ability to be included in text
books and newspapers as kinetic information. Little is
known of the other disc systems announced.

Super 8 mm Film--These systems use Super 8 mm film pro-
jected, in telecine form, through onto a television screen.

Videotape--Some companies have chosen to produce playback
only machines and others will provide "Off-air" recording
capability and playback. The videotape EVS is attracting
the greatest developer interest as can be seen from Table
1. Twenty-two of the thirty-eight companies included in
the table are listed under videotape. This does not include

ten companies mentioned earlier ( p.8) so this number is, at present, thirty-two of forty-eight or sixty-seven per-cent. It appears that the majority of these systems will have full record capability, that is, they will record "Off air", from camera and from another videotape recorder (dub-bing). Editing is one of the problems associated with small format, 1/2 and 3/4 inch, videotape but recent developments indicate that this problem is being resolved.[28]

The EVS may be considered important for two distinct reasons: 1) They greatly increase the chances of vicarious experience, in the best possible form--that is, in kinetic image form when it is necessary--getting to the learner and to the teacher; these machines are easy to use, the software will be cheap enough that it can be decentralized, a darkened room will not be required; and 2) The Record EVS greatly increase the capability of people expressing themselves in a form other than print.

The State of the Art--Software

The EVS are not with us yet--that is, not to the extent that a media director can say, without reservation, "This is the system we will adopt for the next five to eight years", but there are indications that the software compan-ies will be ready to meet the requirements. High-speed duplication facilities are available for varying (video-tape) formats.[29] Free loan video cassettes are available from a company which has a similar free loan service in 16 mm film.[30] A "World wide bibliography and index of video-

tapes" is being established in <u>Current Video Abstracts</u>.[31]

Many newly-formed companies and combines are preparing to

meet the software demand.[32]

<u>The State of the Art--Trends and Possible Trends</u>

The demise of print was predicted by Thoman Edison in 1913

when he felt that film would take over as the major source

of learning.[33] Today there are suggestions that both print

and film may be superceded by videotape. For example, Anth-

ony G. Oettihger questions whether underdeveloped countries

need print literacy.[34] A Delphi study in Sweden indicates

that "...the print medium (for transport and storage) will

be replaced by electronic media (by about 1980)."[35] And

Anthony Brock, writing on Unesco's "World inquiry into edu-

cation" blames "Too much emphasis on the written word" as

part of the reason for youths' rebellion against present-

day education.[36] As if to acknowledge a lowering of the level

of print literacy, Bernard Trotter suggests that the univer-

sities in Ontario could require functional literacy (tests)

as a condition of admission.[37]

Film is losing markets to videotape because video-

tape is about one third the cost of film and it promises

to be even cheaper in the future. Film requires a degree

of expertise not necessary with videotape and laboratory

services which result in time delays.[38]

Two recent announcements will likely influence the

greater use of videotape. 1) The cost of (1/2") videotape

will "hopefully" be about $10 per hour--as opposed to $50

per hour at present--by the year 1975.[39] 2) The discovery of "A new ultra-small magnetic particle", named Cobaloy, which will "Deliver a one hour program (in color) on a 1/4 inch tape on a 3-1/2 reel with the same quality and content that is currently contained in a 3/4 inch "U" 1200 ft. reel like those used by Sony" and which "Can reduce by four the speed currently being utilized by machines playing conventional iron oxide tapes."[40] The development of Cobaloy could possibly be instrumental in forcing the reduction of all the videotape EVS to a 1/4 inch format--and thus, perhaps, creating a 1/4 inch standard. The EVS prototypes are ready for user testing, however, potential users are warned by EPIE (Educational Products Information Exchange) that a complete evaluation of all factors should be made before purchase and "If you have a super application, be a pioneer,"[41]

## The Educational Potential of the EVS

In considering the possible benefits from this new technology, the question posed by James G. Miller is a useful criterion;

> Which (present or proposed) contributes most to the individual organism in the educational system, to the group in the classroom, to the school or university as an organization, to society's educational system or to an international educational system?"[42]

These queries are further elaborated by the Subcommittee on Efficiency and Innovation in Education of the Committee for Economic Development.[43]

> Can the technique be effectively employed in the cultivation of an open mind? Or does it tend to

produce conformity, dogmatism, and regimentation of thought?

Is it capable of communicating and facilitating an understanding of complex concepts? Or is its usefulness limited to the management and manipulation of simple ideas?

Is it capable of cultivating sensitive insight, originality, analytical facility, and creative intellectual skills?

Can it be employed to induce and deepen artistic and moral sensitivity and appreciation?

Do the benefits gained justify the costs incurred? Is the initial cost affordable?

In the context of learner-oriented services, there are those who believe that videotape, and thence the video cassette, is the needed breakthrough and that the benefits far outweigh the costs.[44] But, if we are to wait for scientific proof of the validity of the EVS,[45] Miller warns;

...educational psychology and the other behavioural sciences have supplied us with few effective, reliable, and valid instruments to measure such subtle aspects of human behavior, personality, and social interactions.[46]

At this point in time, given the present limitations of the behavioural sciences as noted by Hoban and Miller (6, 42) and the present state of educational technology, one might ask, "What is the relative usefulness of these EVS?" Miller, in his contribution to the commission towards TO IMPROVE LEARNING, gives eight primary criteria of usefulness of media.

...aids to learning are most useful if the student can:

1. carry them around

2. use them individually

3. use them anywhere

4. determine in terms of his own needs when to use them

5. control the rate of information flow and their repeated use

6. interact directly with the media

7. have the outputs from him influence the next input to him

8. receive inputs in more than one sensory modality to suit his idiosyncrasies.[47]

The following (Table 2) is a table compiled by Miller to compare the various media. When EVS (that is the concept of the perfected EVS) is added to this table it compares favourably against the other media. Four of Miller's eight criteria require qualification. Whether the medium can be carried around will depend on the EVS chosen. Whether it can be used at home will depend on the home and school systems being compatible. At the present stage of development, the user can interact actively only when he/she contributes to the recording of the content. Branching is as possible and as valid as it is on print-- the main difference being that the user is required to stop the process (push the stop button) as opposed to starting a process (turning a page) and programming is feasible on television.[48]

Further, Gabor[49] believes that EVS will do away with the limitations of curriculum, time and space and that the concept of selective, individual study recognises that each student learns differently.

| Instructional Medium | Can user carry it around? | Can user use it individually at school or college? | Can user individually use it at home? | Can user determine when it is to be used? | Can user control rate of information flow & repeat if not understood? | Can user interact actively with input? | Is individualized "branching" possible? | Senses used | Can signals be sent on electronic network? | Costs (in dollars per user hour) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Class lecture | No | No | No | No | Rarely | No | No | Vision & Audition | No | 0.15-3 |
| 2. Small discussion group | No | No | No | No | Sometimes | Yes | Rarely | Vision & Audition | No | 0.50-15 |
| 3. Books and journals | Yes | Yes | Yes | Yes, unless another user has it | Yes | No | No | Vision | No | 0.05-10 |
| 4. Printed programmed instruction | Yes | Yes | Yes | Yes | Yes | No | Yes | Vision | No | 0.05-10 |
| 5. Computerized programmed instruction | No | Yes | Rarely | Yes, unless number of terminals is limited | Yes | Yes | Yes | Vision & Audition | Yes | 2-25 |
| 6. On-line computer aids to learning & scholarship | No | Yes | Rarely | Yes, unless number of terminals is limited | Yes | Yes | Yes | Vision | Yes | 5-100 |
| 7. Closed-circuit lectures on public address system | No | No | No | No | No | No | No | Audition | Yes | 0.02-2 |
| 8. Educational radio | No | Yes | Yes | No | No | No | No | Audition | Yes | 0.01-1 |
| 9. Dial-access audio tape recordings | No | Yes | Rarely | Yes | In some systems | Rarely | No | Audition | Yes | 0.01-2 |
| 10. Broadcast live instructional TV | No | Yes | Sometimes | No | No | No* | No | Vision & Audition | Yes | 0.04-10 |
| 11. Closed-circuit live instructional TV | No | Yes | No | No | No | No* | No | Vision & Audition | Yes | 0.03 |
| 12. Broadcast tape-recorded instructional TV | No | Yes | Sometimes | No | No* | No* | No | Vision & Audition | Yes | 0.01-5 |
| 13. Closed-circuit tape recorded instructional TV | No | Yes | No | No | No* | No* | No | Vision & Audition | Yes | 0.03-4 |
| 14. Dial-access instructional TV | No | Yes | No | Yes, unless number of terminals is limited | Sometimes | Rarely | No | Vision & Audition | Yes | 0.30-5 |
| 15. Facsimile transmission of documents by electronic circuits | Terminals can be portable & attached to any telephone | Yes | Possibly | Yes, during hrs. sender is able to transmit to user | No | No | No | Vision | Yes | --15 |
| 16. Automated storage & retrieval of written & graphic materials | No | Yes | Rarely | Yes | Yes | Sometimes | Yes | Vision | Yes | 2-100 |
| 17. Other standard audiovisual aids | Usually | Yes | Often | Yes | Yes | Sometimes | Rarely | Vision & Audition | No | 0.05-8 |
| 18. EVS | Likely | Yes | Yes 1 | Yes | Yes | Rarely2 | Yes 3 | V & A | Yes | ? |

Source. - James G. Miller, Deciding Whether ....., p9. (Item 18 added by author)

**TABLE 2:** **Media Comparison Table**

Notes on Item 18:
1. If home system is compatible.
2. Only when student contributes to the content.
3. Just as with printed programmed instruction.

The possibility of individualized learning seems to be one of the major advantages of the EVS. Individualized learning has been defined by Weisgerber as "...the degree that the learner believes that his education is personalized to meet his needs and facilitates and encourages his independent progress."[50] In giving testimony relating to the "Educational Technology Act of 1971 (HR 4916, U.S.A.)" W.F. Jensen of the 3M Company stated with regard to the EVS:

> It is clear...that video cassette equipment is going to expand the utility of education's existing commitment in closed circuit (tv) facilities; that it is going to revolutionize early childhood education; that it is going to make television practical, for the first time, as a vehicle for individual instruction at all levels of learning; and that it is going to bring enormous new lesson resources under the control of the teacher.[51]

Discussing the need to fill the information gap between young viewers and the "vast available store of knowledge in our world", William Hanna, of Hanna-Barbera Productions, believes that the video cassette might be the most important tool in the program. He further states that we are undergoing "...The biggest information explosion in the history of Western Civilization since the Renaissance."[52]

In the light of the foregoing, the EVS promises to be a significant advancement in communications technology. Commercial interests, some of which are listed in Table 1, expect to sell 8,000 EVS hardware units per week from 1974 onwards,[53] with a monetary value of between one and two billion dollars. The Sony Company alone expects to sell about 75,000 units in the U.S.A. in one year.[54] The same

source, Al Markim and Bruce Lang of Teletronics International, states that "It will probably take no more than eight or ten years to saturate the country with videoplayers."

There are indications the business interests will readily adopt the EVS. Some reported users are; the Ford Motor Company, with 4,000 units; the Nissen Motor Company, with 1,000 units planned for; Coca Cola; Pepsi Cola; I.B.M.; and the seventeen "top" advertising agencies in the U.S.A.[55] Videotape is being used also for auditioning, career placement interviewing and pre-recorded trial evidence.[56]

One missing link between the old and the new video technology is that the EVS are not equipped to dub from PVTR. However, as Shamberg points out:

> As soon as one machine is available to Guerrilla Television, ...., plans for plugging-in to a cassette machine will be circulating around the world.[57]

The EVS announce the liberation of video. Until now, videotape was handled in a reel-to-reel situation which, with film, confused would-be lay users who found difficulty in remembering how to thread the machine.[58] The EVS will result in videotaping becoming much cheaper and more readily accessible. It is not at all difficult to foresee the marketing of EVS software in the corner-stores of North America, if not the world. Now the end-user can purchase video directly, as the print reader can purchase the inexpensive paperback.

The EVS in themselves will not solve all the problems of education. They do seem to offer a much needed means of

making learning more individualized and more relevant.
There is enough evidence that educators are aware of the
need to individualize the learning process. In its report
to Unesco, the International Commission on the Development
of Education produced twenty-one recommendations on the
directions of tomorrow's educational strategies. Four of
these recommendations are especially pertinent to this
study. These are:

> Lifelong education presupposes a complete re-
> structuration of education. Education must cease
> being confined within school walls. Education
> should become a true mass movement. (No. 2)

> Aids to self-education, including language labora-
> tories, libraries, data banks, and audio-visual
> equipment, should be integrated into all educational
> systems. (No. 14)

> Education systems should be conceived and planned
> in terms of possibilities offered by new educational
> techniques. (No. 15)

> Contrary to traditional practice, teaching should
> adapt itself to the learner. The student should
> have greater freedom to decide for himself what he
> wants to learn and how and where to learn it. (No. 20)[59]

The EVS may be seen as a vital component of these educational
strategies.

This study examines, in part, the local educational
institutions in this transitional stage, between the tradi-
tional educational practices and the freer learning situa-
tion which will hopefully come with the maturity of the EVS.
It further examines whether contemporary students are being
allowed to use portable videotaping as a means of expression
and whether plans are being made to adopt the EVS.

# CHAPTER TWO

## THE STUDY

### The Objectives of the Study

The prime objective of this study is to discover to what extent post-secondary students in the Montreal area are allowed and encouraged to use portable videotape recorders within the context of credit courses.

This prime objective is motivated from several sources. It is motivated by the author's interest in the video cassette technology and his belief that video technology can bring needed vicarious experience to the learner much cheaper, faster and in a more convenient form than can any other available technology. This objective is further motivated by statements uncovered during the search of the literature. These statements are made by Elizabeth Prinn, Assistant Editor of Access.

> Most Videographe projects to date are being produced by students. They value the easy access to equipment, the professional coaching, the absence of a studio and the responsibility to an audience.... Aren't the community colleges teaching the art and technique of video?[60]

by Shamberg, author of Guerrilla Television,

> Educational television is probably the biggest hype that educators have ever put over on American kids. Even though TV has replaced print (that is, in the home), I know of no school where the kids are encouraged to make their own TV as a primary mode of expression. Yet at home the kids are gobbling up TV. The result is that growing up in America on television is like learning how to read but being denied the chance to write.[61]

by William A. Young, Director, New Learning Media Division, Association of Universities and Colleges of Canada:

One phenomenon that doesn't appear in your article
is the rapidly increasing use of light, inexpensive
videotape recorders.... I suspect that as videotape
recorders become more and more common in various
faculties there will be a swing of the pendulum
towards decentralization.[62]

and by G.A.B. Moore, then Director, Centre for Instruct-

ional technology, Sir George Williams University:

To provide further insight into the innovative
use of Educational Technology it is recommended
that:
a study should be undertaken to document the
creative use of Educational Technology in
Canadian universities and to identify the
sources of initiative.[63]

The Study will have four minor objectives, as follows:

1. to identify the sources of innovative use
of PVTR by students (that is, library, media
center, faculty or other).

2. to determine if there is any indication that
libraries are sponsoring or intend to sponsor
innovative use of PVTR by students.

3. to inquire into the optimum conditions for
student access to PVTR equipment.

4. to discover to what extent EVS have been pro-
cured by these post-secondary institutions.

The first three of these minor objectives were, on a local

scale, a follow-up to the study done by Moore and were in-

cluded at his suggestion. The fourth was intended to re-

cord the progress of the EVS in this area.

## Hypotheses

The following hypotheses were established as guides

to the objectives of the status survey:

1. There exists at present little opportunity
for students to express themselves individ-
ually through the use of PVTR.

2. Any promotion of student use of PVTR eman-

ates from the Media Centre and not from the
various faculties and libraries.

3. Libraries do not intend to supply the means of
playing-back a video cassette.

4. The majority of the videotaping which is done
in these institutions is done in studios with
non-portable equipment.

5. The trend of future video equipment purchas-
ing will be towards PVTR.

## Importance of the Study

This study is important in that it identifies and

documents, for the benefit of media directors, librarians

and others, present innovative use of PVTR, as well as the

innovative agents, in post-secondary education in the study

area. It documents the plans of librarians with respect to

stacking of videotape and cassettes and with respect to

plans to provide video-playback machines. It suggests

guide-lines for lending PVTR equipment to students and doc-

uments the progress of the EVS at this time of uncertainty

as to standardization in critical features.

## Definitions

The following terms are used throughout the study

and require definition.

## Educational Technology

...the development, application and evaluation of
systems, techniques and aids to improve the pro-
gress of human learning. Implicit in this definition
is a concern that learning objectives should be care-
fully considered at the outset, along with the means
of assessing whether these objectives have been attained.
Educational Technology is thus concerned as much with
the needs of the learner as with those of the teacher
or trainer. In interpreting this broad view of edu-
cational technology the Council (British National
Council for Educational Technology) includes the search

for improved productivity in education and training.
In addition to giving attention to greater effect-
iveness where the learning process is concerned, it
considered as equally important the securing of great
efficiency in the management of this process. The
Council therefore has a direct interest also in the
inter-relationship of finance, planning and adminis-
tration. All these considerations imply a carefully-
planned use of the resources available, taking 're-
sources' and the widest sense to include human,
material, architectural, financial and other elements
in the design of learning systems for educational and
training purposes.[64]

The above definition, by the British National Council for

Educational Technology and used as guide in the graduate

program in Educational Technology at Sir George Williams

University, will be used since it is comprehensive and not

biased in favour of a 'hardware' approach.

In the North American context, the profession is

still having trouble defining the term Educational Technol-

ogy.[65] There does, however, seem to be a concensus on a

two-parted concept of the tangibles of hardware and software

and the systems. This is the approach taken in To Improve

Learning: A Report to the President and the Congress of the

United States by the Commission on Instructional Technology.[66]

Synonyms: Instructional Technology; Instructional

Aids; Instructional Communications; Audio-visual

Media; the New Media; and combinations of these terms.

Media Centre. A department within an institution--in this

context an educational institution--which provides profession-

al and technical services in the field of educational tech-

nology.

Synonyms: Instructional Materials Centre; Centre

for Instructional Technology; Audio-visual Centre;

Communication Services Centre; and combinations of

these.

Media Director. The person who is in charge of the media

services of an institution. This person would be expected

to have had experience and graduate training in the field.

EVS  (ENCAPSULATED VIDEO SYSTEM)  This term and its abbrev-

iation are not offered here as being standards.  The author

believes that this term adequately covers the various mediums

and formats involved.  Thus, the term EVS covers vinyl tape

and discs, film ('coded' and Super 8mm) and magnetic tape

in the various sizes being offered--presently 1/2", 3/4",

and 1".[67]  The EVS refer to the various systems which are

designed to project information onto a television screen

from packaged or encapsulated software.  The capsule is

called a cassette, cartridge or disc and, with the exception

of the disc--which carries the message itself--contains the

tape or film medium.  A battery operated Record EVS is also

a PVTR.

Video Cassette:  Used in this study, video cassette or cas-

sette refers to the capsule of an EVS.

PVTR:  (Portable Videotape Recorder)  This is a videotape

recorder which is portable to the extent that it can be

carried and operated by one person.  It operates on battery

p  er.

Innovative:  This word is used throughout the study in the

context of "Innovative use of PVTR".  Since it has not been

common practice to allow, let alone encourage, students to

report the results of their studies (outside of courses specifically dealing with television) on videotape, it is hereby considered innovative to allow and/or encourage this practice.

Kinetic information:  In the context of this study, the term kinetic information is used as a synonym for "moving picture", or "moving information"--as opposed to static information, such as is seen on still film slides and print.

Kinetic counterpart:  This term is used in the study when comparing the paperback book--which is cheap and available to the masses--with the video cassette--which will be cheap, available, cheaply copied, uncensored and has the advantage of being able to be shared with a group or absorbed individually.

Limitations of the Study

1. The study is confined to post-secondary public educational institutions on the Island of Montreal--that is, the CEGEP's (Colleges d'enseignement general et professionnel) and the universities.  Loyola College is included since it has been granting degrees through the University of Montreal and is presently negotiating for union with Sir George Williams University.

2. The study is limited to media officers and librarians on the assumption that they, between them, are aware of information retrieval patterns and media usage.

3. The technical feasibility of the EVS is accepted, with recognition of the lack of standardization at present.

4. A selective, rather than an exhaustive, review of the literature is made.

## The Survey Method

A questionnaire was designed with the intention of attempting a mailed survey. Because of the timing involved-- and the expected delay in the mail due to the Christmas rush--and the possibility of language and ethnic difficul- ties, a decision was made to interview the respondents ra- ther than ask them to complete a questionnaire. The ques- tionnaire was translated into French and the translator accompanied the author to the interviews in the French- speaking institutions.

In two of the eleven interviews conducted in French- speaking instututions the translator reported a distinct resentment which he considered to be due to the language barrier. In the other institutions we were well received and a high level of interest was declared for the present study.

After explaining the nature of the study to the interviewees, the questions were put and the response was recorded by either the author or the translator.

A cassette audio-recorder was taken to the inter- views but this was not required since it was found to be more economical to write any comments. Also taken to the inter- views were samples of EVR (Electronic Video Recording) film, a vinyl disc (audio), vinyl tape (RCA, SelectaVision) and a Sony video cassette. A copy of the survey is included as Appendix "B".

## The Survey Population

The survey population consisted of the chief librarians and the media directors of fourteen post-secondary public educational institutions on the Island of Montreal. However, since McGill University has a media centre in its Faculty of Education, the total number of possible respondents was twenty-nine.

In two of the CEGEPS, one person answered on behalf of both librarian and media director functions--thus the possible total of respondents was twenty-seven.

The potential respondents in one of the French-speaking CEGEPS could not be persuaded to see the translator and the author, nor would they agree to a telephone interview or complete the delivered questionnaire. Thus, the number of actual respondents was twenty-five of the twenty-seven possible--or approximately 93%

Of the twenty-five responses, fourteen were from media directors and eleven were from chief librarians. Eight of the instituions were French-speaking--i.e., two universities and six CEGEPS. Six of the institutions were English-speaking--i.e., three universities and three CEGEPS. Loyola College, included here with the universities, is and has been a degree-granting institution.

The list of institutions surveyed is to be found in the appendix "A".

# CHAPTER THREE

## THE SURVEY RESULTS

This chapter is devoted to a statement of the results of the survey where they relate directly to the hypotheses which were formulated as guides towards the achievement of the stated objectives and to a statement on the achievement of these objectives. The actual responses to the survey are to be found in Appendix "C". Tests of significance where appropriate are generated through Chi square tests.

### THE VALIDITY OF THE HYPOTHESES

### Hypothesis 1

> These exists at present little opportunity for students to express themselves individually through the use of PVTR

This hypothesis appears to be invalid. As shown in Table 3, the response indicates that all of the fourteen media directors and four of the eleven librarians consider that students are being encouraged to use PVTR as a means of expression. Almost all of the people who thus answered pointed out that students will use videotape as well as print to express themselves--not necessarily instead of print. This response corelates with the response to the question on "What faculties, departments or programs are promoting this use?" where thirteen media directors and two librarians knew where the use of video was being promoted. In both these questions, it is clear that the media directors appear more innovative and knowledgeable regarding

institutional activity than librarians.

## TABLE 3

### Opportunity to Use PVTR Equipment.

|  | students are | |
|---|---|---|
|  | encouraged | not encouraged |
| Media Directors | 14 | 0 |
| Librarians | 4 | 7 |

$$df = 1 \quad x^2 = 9.419 \quad p < .01$$

## Hypothesis 2

Any promotion of student use of PVTR emanates from the Media Centre and not from the various faculties and libraries.

This hypothesis appears to be valid with regard to librarians (Table 4). While only one of the eleven librarians are involved in the lending of PVTR equipment, as opposed to eleven of the fourteen media directors, the responses, as shown in Tables 5 and 6, indicate that the use of PVTR is being encouraged over a wide range of disciplines. The promotion of student use of PVTR, however, emanates primarily from the media centres and from the various subject departments and faculties.

## TABLE 4

### PVTR Lending from Media Centres and Libraries

|  | do lend | do not lend |
|---|---|---|
| Media Centres | 11 | 3 |
| Libraries | 1 | 10 |

$$df = 1 \quad x^2 = 9.293 \quad p < .01$$

## TABLE 5

### Academic Levels Promoting Student Use of PVTR

| Faculty | commerce (2), engineering (2), science (2) |
|---|---|
| Department and Subject | philosophy (3), athletics (2), theatre (2) biology (3), chemistry (3), radiology (3), dental surgery (2), applied social science (4), humanities (6), management training (2), physics (2), nursing (3), English (7), poetry (2), linguistics (4), occupational therapy (2), psychology (2), physiology (2), communication arts (2), cinema (3), education (3), physical education (1) |
| Program | Quebec Study (1), Kaleidoscope Canada (1) |

The numbers represent the number of institutions reporting PVTR activity in these areas.

## TABLE 6

### Academic Levels Lending PVTR Equipment to Students

| Faculty | engineering (1) |
|---|---|
| Department | English (2), physics (1), guidance (1), psychology (1), sociology (1), criminology (1), education (1) communications (1) |

See note under Table 5

## Hypothesis 3

Libraries do not intend to supply the means of playing-back a video cassette.

This hypothesis appears to be invalid. Of the eleven librarians, nine plan to stack the EVS software and eight plan to provide playback equipment. Four of these librarians presently stack videotape recordings and have playback facilities for them. Table 7 shows the intentions of librarians and media directors to provide EVS playback facilities both inside and outside of the institutions.

## TABLE 7

### The Intention to Provide EVS Playback Facilities

| | | yes | no | |
|---|---|---|---|---|
| Will provide these facilities | Librarians | 8 | 3 | df = 1 |
| | Media Directors | 13 | 1 | $x^2$ = .661 N.S.D. |
| Would allow playback equipment out of the institution | Librarians | 2 | 9 | df = 1 |
| | Media Directors | 6 | 8 | $x^2$ = .776 N.S.D. |

### Hypothesis 4

The majority of the videotaping which is done in these insitutions is done in studios with non-portable equipment.

This hypothesis appears to be valid. As shown in Table 8, eight of the fourteen media directors estimated that over 50% of their videotaping was done on studio equipment. Five of the fourteen media directors estimated that over 50% of their videotaping was done on portable equipment.

## TABLE 8

### Percentage of Studio and Portable Videotaping

| | 75-100% | 50-74% | 10-49% | 0% | Total |
|---|---|---|---|---|---|
| Studio | 6 | 2 | 4 | 2 | 14 |
| Portable | 3 | 2 | 6 | 3 | 14 |

### Hypothesis 5

The trend of future video equipment purchasing will be towards PVTR.

This hypothesis appears to be valid. Most of the

media directors mentioned that one could buy much more video-taping potential with portable equipment than with studio equipment for a given amount of money. Considering this fact, nine of the fourteen media directors expect to to purchase more portable than studio videotaping potential in the future (Table 9). The reasons which were given for this trend are provided in the responses to Question 6, Part C (Appendix C).

## TABLE 9

Expected Video Equipment Purchasing Trend
(in percentage of dollars)

|  | 100% | 75-99% | 51-74% | 50% | 1-49% | 0% | TOTAL |
|---|---|---|---|---|---|---|---|
| Studio | 0 | 4 | 1 | 2 | 5 | 2 | 14 |
| Portable | 2 | 3 | 2 | 2 | 5 | 0 | 14 |

## STATEMENT ON THE ACHIEVEMENT OF THE OBJECTIVES

The prime objective, "To discover to what extent post-secondary students are allowed and encouraged to use portable videotape recorders within the context of credit courses.", was met. As indicated by the responses to Questions 4a, 4b, 5a and 5b, of Part B, and as shown in Tables 3, 4, 5 and 6, students are being allowed and encouraged to use portable video to express themselves in a wide variety of subject departments and faculties. In the discussions which the author and the translator had with the interviewees, it was mentioned by many that more portable videotaping would

be done if budgets would allow for the purchase of more
equipment.

## Minor Objective #1

To identify the sources of innovative use of PVTR
by students (that is, library, media centre, faculty
or other.

, Reading from Tables 3, 4, 5 and 6, it is seen that
libraries are not sources of innovative use of PVTR by students. The active sources are the media centres and the
various subject departments and faculties.

## Minor Objective #2

To determine if there is any indication that libraries
are sponsoring, or intend to sponsor, innovative use
of PVTR by students.

As noted above, libraries are not now sponsoring
innovative use of PVTR. The response to Question 3, Part
C, as seen in Table 10, shows that six of the eleven librarians, approximately 50 per cent, plan to lend PVTR equipment to students in the future.

### TABLE 10

Future Lending of PVTR Equipment
and Blank Tapes

|  | plan to lend | do not plan to lend |
|---|---|---|
| Librarians | 6 | 5 |
| Media Directors | 13 | 1 |

$$df = 1 \quad x^2 = 3.079 \quad p = .07$$

## Minor Objective #3

To inquire into the optimum conditions for student
access to PVTR equipment.

The medium for this inquiry was Part D of the Questionnaire.

Insurance. The majority of the people interviewed stated that they could not get effective insurance. The institutions had a blanket type of insurance but with such a high deductable that a machine or two stolen could not be claimed. Also, the type of insurance in effect covered the equipment while it was on the premises only. As can be seen in Table 11, the eleven negative responses recorded for question 1, Part D, indicate that the equipment is not now insured. The general feeling was that the equipment should be insured if a type of insurance can be designed to meet the requirements. There was no general consensus as to who should pay for any such insurance. Most thought that, if insurance could be designed to meet the requirements, the cost should be shared by individual students, student bodies and the institution.

TABLE 11

Insurance on PVTR Equipment on Loan

| | Those presently lending | | Those not lending | | TOTAL |
|---|---|---|---|---|---|
| | insured | not insured | would insure | would not insure | |
| Media Directors | 2 | 11 | 1 | 0 | 14 |
| Librarians | 2 | 0 | 8 | 1* | 11 |

*This person was doubtful

Training in the use of the equipment prior to borrowing. All those interviewed feel that it is essential that students be trained in the use of the equipment. Seven of the twenty-five people suggested that students be made aware of the full potential of video as a means of expression.

Identifying students who wish to borrow PVTR equipment.
As seen in Table 12, Media Directors prefer both faculty
clearance and a student identity card. Librarians prefer
a student identity card only. None of the twenty-five would
accept faculty clearance only. Reasons given for this were
that faculty are too lax in issuing notes and that notes
are too easily forged.

TABLE 12

Identifying Students for PVTR Lending

| Student's card with photo. only | | yes | no | Total | |
|---|---|---|---|---|---|
| Student's card with photo. only | Media Directors | 4 | 10 | 14 | df = 1 $x^2$ = 3.205 p = .07 |
| Student's card with photo. only | Librarians | 8 | 3 | 11 | df = 1 $x^2$ = 3.205 p = .07 |
| Clearance (note) from a faculty member only | m.d. | 0 | 14 | 14 | N.S.D. |
| Clearance (note) from a faculty member only | Lib. | 0 | 11 | 11 | N.S.D. |
| Both of the above | m.d. | 10 | 4 | 14 | df = 1 $x^2$ = 3.205 p = .07 |
| Both of the above | Lib. | 3 | 8 | 11 | df = 1 $x^2$ = 3.205 p = .07 |

Keeping records. All but two of the twenty-five people
would keep careful record of all equipment loaned and of
all equipment breakdown problems.

The maximum lending period for PVTR equipment. There was
no general concensus in the responses to this question.
Ten of the fourteen media directors think that three or less
days are sufficient. These results are shown in Table 13.

## TABLE 13

### Maximum Lending Period for PVTR Equipment

|  | Days | | | | | | | individual decision | supply and demand | Total |
|---|---|---|---|---|---|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |  |  |
| Media Directors | 3 | 3 | 4 | 1 | 0 | 0 | 0 | 3 | 0 | 14 |
| Librarians | 2 | 1 | 2 | 1 | 1 | 0 | 1 | 2 | 1 | 11 |

## Minor objective #4

To discover to what extent EVS have been procured
by these post-secondary instututions.

Of the fourteen media directors surveyed four had
procured a video cassette system and of the eleven librarians
polled one had procured a video cassette system. All five
systems are Sony Corporation, 3/4 inch, magnetic tape.
One media director had had a Sony video cassette unit and
had returned it because of technical problems in the equip-
ment. These results are shown in Table 14.

## TABLE 14

### Institutions Presently Using EVS

|  | CEGEPs (N=8) | Universities (N=5) |
|---|---|---|
| Libraries | 0 | 1 |
| Media Centres | 1 | 3 |

### Additional Results from the Survey

The following discussion relates to questions in
the survey which sought information not required specifical-
ly for the stated objectives. These questions and the res-
ponses to them are found in Appendix C.

Part A-3. Do you feel that the EVS will revolutionize information flow in the future?

Eighteen of the twenty-five people said "yes" with seven of these being a qualified "yes". These results are shown in Table 15. Interestingly, no significant differences between media directors and librarians were detected on this issue (collapsed data to 2 x 2 table yielded $x^2 = 1.624$, $p = .20$). The justifications given for these responses are to be found in Appendix C.

TABLE 15

EVS and Future Information Flow

| | EVS will revolutionize information flow | | | | |
|---|---|---|---|---|---|
| | yes | qualified yes | no | don't know | Total |
| Media Directors | 7 | 5 | 1 | 1 | 14 |
| Librarians | 4 | 2 | 2 | 3 | 11 |

Part B-7. Do students have access to editing equipment for 1/2" videotape?

All of the institutions have equipment to edit 1/2" videotape but three of the fourteen media directors do no allow students access to it.

Part B-9. Comparing student use of video with student use of 8 mm sound film. As can be seen in Table 16, none of the fourteen media directors thought that students would prefer 8 mm sound film over video to express their ideas.

## TABLE 16

### Video versus Film
(Media directors opinions on student preference)

| Prefer to work with | | don't know | Total |
|---|---|---|---|
| Film | Video | | |
| 0 | 13 | 1 | 14 |

Some reasons given for the choice of video were; that video was much more economical than film, that students could "retake" a scene immediately since they could discover at the time whether or not they had taped what they wanted to tape and the tape could be erased and reused, and that sound was recorded at the same time as sight was recorded.

# CHAPTER FOUR

## CONCLUSIONS, RECOMMENDATIONS AND SUMMARY

### Conclusions

It can be concluded that the response to the prime question of the study, that of whether or not students were being allowed and encouraged to use videotape to express themselves within the context of credit courses, is yes. Seventy-two per cent of the respondents answered positively.

The promotion of student use of PVTR emanates from the media centres and from the various subject department and faculties and not from the libraries. As seen in Table 10 (cf. p.34), more librarians do plan to lend PVTR equipment in the future. One would suspect the promotion of videotaping would be a minor role for the media centres and assistance a major role.

Librarians do intend to stack the video cassettes and to provide EVS playback facilities. The majority of librarians and media directors will retain these EVS playback facilities within the institution. Most of the librarians talked of having a media resource centre physically and organisationally connected to the library.

The majority of the videotaping which is done under the authority of media directors is done on studio equipment. This seems to be because faculty will request the type of programming which lends itself to studio production and, presumably, will have students do any portable videotaping that is called for or do it themselves.

The bulk of future video equipment purchases will be in portable equipment. However, it can be more strongly stated, the majority of future videotaping will be on portable equipment. Media directors were quick to point out that a 50% dollar purchase each of studio and portable equipment could mean that about 80% of the videotaping capability lies with the portable equipment. Most media directors were interested in getting students "Out into the community" with videotaping equipment.

The encapsulated video systems have reached five of the thirteen institutions investigated. In all cases, the equipment being used is the Sony 3/4"-U. One institution had had this same equipment and had retured it because of technical inadequacy. It should be noted, however, that this same equipment is that ordered by the Ford Motor Company and other large businesses. It is, as far as can be determined, the first Record/Replay EVS on the market and has yet to meet its competition.

Generally speaking, most of the respondents feel that the encapsulated video system will revolutionize information flow. It must be noted that the question dealt with the concept of the EVS only. As can be seen from the responses to question #2, Part A (cf. Appendix C, p.55),only nine of the fourteen media directors and none of the eleven librarians knew of more than two of the medium materials used in these systems. Editing equipment is available in all of the institutions surveyed. Some of the media

directors do not allow students access to the 1/2" editing equipment but this is available to them elsewhere--at Video-graphe, for instance. Video is definitely prefered over film as a means of expression, according to the response of thirteen of the fouteen media directors. The fourteen-th did not care to speculate and responded neutrally.

Finally, the question posed by Elizabeth Prinn (60) and the statement made by William A. Young (62) can be responded to positively. Some CEGEPs are teaching the art and techniques of video, and, there is a swing of the pendulum towards decentralization (of videotaping capacity).

## Conclusions on the optimum conditions for lending PVTR equipment

None of the institutions have effective insurance on the equipment, which they lend to students. Most have an insurance which gives blanket coverage to the institution but which has a large enough deductible that a Porta Pak ($1,500 approx.) cannot be reclaimed and/or equipment is only insured while it is on the premises. Most institutions take a chance on the students returning the equipment but some retain the identity card of the student--thus perhaps infringing on the freedom of the student. The author considers the insurance problem one which requires high priority if portable videotaping equipment is to be widespread.

The above discussion of insurance in considered in the following list of optimum conditions for lending PVTR equipment to students.

The equipment should be insured (When effective insurance is obtainable)

Students should be instructed in the operation of the equipment and be made aware of the potential of video.

(This is being successfully done in some institutions with videotaped programs)

If possible, a technician should check the equipment when it is returned.

Students should be identified with an identity card with the student's photograph on it. (Clearance notes from faculty are suspect)

Records should be kept of equipment and all accessories loaned and of problems which the students encounter with the equipment.

The maximum lending period for the equipment should be conditional on the amount of available equipment to meet the demand, with special consideration being given for special circumstances.

Another possible condition is that students provide their own videotape (See the comments to the questionnaire, Part D, #9, Appendix "D" and footnote 39).

## Recommendations

<u>Media directors</u>. It is recommended that media directors maintain close contact with the developments in encapsulated video systems and intensify that close contact when the time to purchase approaches. As suggested, with the development of Cobaloy (40) little effort is required to change the present tentative technical position of the various encapsulated video systems.

It is recommended that media directors study the social and educational implications of the EVS and plan for their embracement.

It is recommended that media directors keep on record

the following information which will guide their staff,
librarians ad faculty in their dealings with the EVS.

> The system being used (or to be used)--including
> such information as medium, format, manufacturer,
> model(s), size, standards, etc.

> What servicing procedures are to be followed.

> Where and under what conditions outside servicing
> is to be arranged for.

> What lending procedures are to be followed.

Librarians. It is recommended that librarians establish
clear policy on the lending of EVS hardware and software.
Regarding hardware, it is recommended that they arrange
lending through a servicing centre (Media Centre) because
of the various technical considerations. Regarding soft-
ware, it is recommended that they consider handling this
through monitors in study carrels. One should note that
the software will be vulnerable to theft, as is the audio
cassette, especially if the cassette is only 3 1/2" in
diameter, as it could be if Cobaloy is successful.

It is recommended that the librarians view the video
cassette as possibly the kinetic counterpart to the paperback
book and keep abreast with its social and educational im-
pact, to better meet any demands on the library service.
Further, it is recommended that they consult with the media
director prior to the purchase of any EVS software or hard-
ware, lest there be an incompatibility problem.

Faculty. It is recommended that faculty accept the trend
towards non-print reporting (evident with social change
groups) and establish guidelines for their students, to aid

and encourage them in their use of video in reporting.

It is recommended that faculty research into the media resources available to provide the vicarious experiences desired for students. "Non-Establishment" resources which should not be overlooked are listed in Approaches.[68] It may be necessary for faculty and administration to discuss viewing facilities and time allowance for faculty to view student video presentations.

Research recommendations.--The following recommendations are intended as possible topics for graduate research by students of educational technology.

1. As a follow-up to this study, it is recommended that:

    -- an investigation be made of the problems faced by students and by faculty with respect to student reporting by means of portable video in the context of credit courses.

2. In anticipation of the availability of the EVS to educators and to individuals, it is recommended that:

    studies be conducted to document sources of EVS software, sources of evaluation of this software, and available services for transferring from one format to another.

3. In consideration of the evidence that effective insurance is not available on loaned equipment, it is recommended that:

    an investigation be made of possible ways of insuring articles of equipment to be loaned by institutions to students.

4. In consideration of the dissatisfaction with traditional education and the apparent trend toward an electronic resource centre approach, it is recommended that:

initial work be done on isolating and document-
ing the social and economic factors which would
be affected by a shift from traditional public
schooling to the community resource centre approach
to learning.

The video cassette cannot be claimed as a panacea
for all the ills of education. It is a refinement in two
important spheres of learning, the sphere of individual
experimentation, documenting and reporting, and the sphere
of vicarious learning--whence it is of great value to the
learner and to the teacher. It is a much needed link in
the chain of technological developments leading to national
and international random access retrieval capability and
thus greater freedom of access to information (learning)
for the individual.

SUMMARY

The study considers two of the areas of interest to
the student of educational technology; the effectiveness of
present audio-visual technology and the promise of the video
cassette.

In pursuit of the latter interest, a study was made
to determine:  1)  whether students are being allowed and
encouraged to communicate with video in the context of
credit courses;  2)  to what extent EVS are being utilized
at present;  3)  what plans librarians and media directors
have for adopting the EVS;  4)  what are the sources of in-
novative use of portable videotape recording (PVTR); and 5)
how much videotaping is done on studeo equipment as opposed
to portable equipment.

The librarians and the media directors of thirteen post-secondary educational institutions on the Island of Montreal were surveyed. Where required, a translator accompanied the researcher and the interview was conducted in French. Ninety-three per cent of the survey population responded·

The results of the study suggest:  1) that students are being allowed and encouraged to use videotape to communicate within the context of credit courses; 2) that subject department, faculties and media centres are promoting this use of videotaping and not the libraries; 3) that librarians plan to supply the means of playback for the EVS; 4) that the majority of videotaping done under media directors is done on studio facilities and not on portable facilities; 5)  that the future trend of video equipment purchasing will be toward portable equipment and not studio equipment and 6)  that five of the thirteen institutions presently have an EVS in use.

Further research is recommended in the areas of faculty/administration, faculty/student problems in reporting on videotape, software resources, insurance of equipment and the factors affected by a shift from traditional to electronic learning.

APPENDIX A

The Survey Population

## THE SURVEY POPULATION

### Universities

McGill UNIVERSITY

805 SHERBROOKE STREET WEST

MONTREAL 110, P.Q.

SIR GEORGE WILLIAMS UNIVERSITY

1435 DRUMMOND STREET

MONTREAL 107, P.Q.

LOYOLA OF MONTREAL*

7141 SHERBROOKE STREET WEST

MONTREAL      P.Q.

UNIVERSITE DU QUEBEC A MONTREAL

CASE POSTALE 8888

MONTREAL P.Q.

UNIVERSITE DE MONTREAL

CASE POSTALE 6128

MONTREAL 101, P.Q.

* LOYOLA, PRESENTLY A COLLEGE WITHOUT DEGREE GRANTING STATUS,
IS INCLUDED IN THIS STUDY FOR TWO REASONS - IT IS CURRENTLY
NEGOTIATING WITH SIR GEORGE WILLIAMS UNIVERSITY FOR SOME KIND
OF UNION WITH SIR GEORGE, AND LOYOLA HAS FOR MANY YEARS OFFERED
COURSES IN COMMUNICATIONS ARTS.

## CEGEP's*

COLLÉGE AHUNTSIC

9155 RUE ST. HUBERT

MONTRÉAL 353, P.Q.


DAWSON COLLEGE

350 SELBY STREET

WESTMOUNT 215, P.Q.


COLLEGE de MAISONNEUVE

2800 est, rue Sherbrooke

MONTRÉAL 406, P.Q.


COLLEGE de SAINT-LAURENT

625 boul. Sainte-Croix

MONTRÉAL 379, P.Q.


COLLEGE du VIEUX-MONTRÉAL

200 ouest, rue Sherbrooke

P.O. Box 444, Station N

MONTRÉAL 129, P.Q.


VANIER COLLEGE

821 Boul.Sainte-Croix

MONTRÉAL 379, P.Q.


JOHN ABBOTT COLLEGE

POST OFFICE BOX 2000

Ste ANNE-de-BELLEVUE, P.Q.


COLLEGE de ROSEMONT #

6400 16e Avenue

MONTRÉAL 408, P.Q.


COLLEGE de BOIS-DE-BOULOGNE

10555 avenue des

Bois-de-Boulogne

MONTRÉAL 355, P.Q.


\* The community colleges of the Province of Quebec are called
Colleges d'enseignement general et professionnel, and are
abbreviated CEGEP's

\# The author and the translator were unable to enlist the
cooperation of the media director and the librarian in
this institution.

# APPENDIX B

## The Questionnaire

## SURVEY ON "USE OF PORTABLE VIDEO IN POST-SECONDARY EDUCATION

## ON MONTREAL ISLAND

by G.L. Morgan, SGWU.

Name of Librarian

    or Media Director     _____

Name of Library     _____

    or Media Centre     _____

Name of Instutution     _____

## PART A

1 - Are you familiar with the concept of the Encapsulated Video Systems (EVS)?

| yes | ____            | no | ____

proceed                 

2 - Can you name four materials which will be used with the EVS?

_____         _____

_____         _____

3 - Do you feel that the EVS will revolutionize information flow in the future?

| yes | ____            | no | ____

proceed                 

4 - In what ways do you feel that EVS will revolutionize information flow in the future?

## PART B

1 – Does your library/media centre hold videotape recordings which are available for loan to individual students?

| yes | \_\_\_\_  | no | \_\_\_\_ |
| proceed |  | go to 3a |

2 a – In what form are these recordings? – reel to reel \_\_\_\_

- cassette _____

- both of these \_\_\_\_

b – Do you have playback facilities available in the media centre/library?

yes \_\_\_\_    no \_\_\_\_

c – Can students use these recordings;

- only in the centre/library? \_\_\_\_

- only in the institution? \_\_\_\_

- only out of the institution? \_\_\_\_

- where they please? \_\_\_\_

3 a – Have you obtained (by purchase, rent or other means) EVS for your institution?

| yes | \_\_\_\_ | no | \_\_\_\_ |
| proceed |  | turn to page 3 |

b – What system(s) are you using?

_____

_____

_____

4 a – Are the students in your institution encouraged to use PVTR, instead of print, as a means of expression?

| yes | \_\_\_\_ | no | \_\_\_\_ |
| proceed |  | go to 5a |

b - What faculties, dapartments and programs are promoting this use?

Faculties     Departments    Programs

5 a - Can individual students borrow PVTR equipment from your media centre/library?

yes _____  no _____

b - What other faculties, departments or programs loan PVTR equipment to students?

None _____

Faculties     Departments    Programs

MEDIA DIRECTORS ONLY

6 Of all the videotaping which is done under your charge, in your estimation, approximately:

a - what percentage of this videotaping is done on studio equipment (including equipment on trolleys)? _____

b - what percentage of this videotaping is done on portable (Porta Pak type) equipment? _____

7 - Do students have access to editing equipment for $\frac{1}{2}$" videotape?

yes _____  no _____

8 - What equipment does the institution have for editing $\frac{1}{2}$" videotape?

None _____

_____

_____

_____

9 - Comparing student use of video with student use of 8mm sound film;

a - do you have commercially prepared 8mm sound films available for individual student use?

yes _____          no _____

b - are students encouraged to use 8mm sound film instead of print, to express their ideas?

yes _____          no _____

c - do students seek to use commercially prepared 8mm sound film in individual learning?

yes _____          8mm sound film _____

d - faced with the availability of both PVTR and facilities for producing 8mm sound film, which of these, in your experience, is preferred by students?

video _____          8mm sound film _____

## PART C

1 - Does your media centre/library have a plan to stack EVS software in the future?

yes _____          no _____

2 a - Does your media centre/library have a plan for future provision of videotape playback equipment for student use

- in the media centre/library?     yes _____ no _____

- outside the institution?          yes _____ no _____

b - Does your media centre/library have a plan for future provision of 8mm sound film playback equipment for student use

- in the media centre/library?     yes _____ no _____

- outside the institution?          yes _____ no _____

3 - Does your media centre/library have a plan to loan-out PVTR equipment and blank tapes (available to all students) in the future?

yes _____          no _____

4 - In your opinion,

a - should videotape playback and PVTR equipment be avail-
able on external loan to students?

yes|____                    no|____

proceed                    go to 5

b - who should lend this equipment?

library ____    media centre ____    faculty office ____

other (please specify) _____

**MEDIA DIRECTORS ONLY**

5 - In planning future video purchases, what percentage of
these would be in;

- studio equipment? _____%, - portable equipment ____%

6 - What is your justification for these percentage allotments?

- studio equipment. _____

- portable equipment. _____

**PART D** - In this part of the survey the author would like to
determine what you consider to be the optimum cond-
itions for lending PVTR equipment to students.

If you are presently lending PVTR equipment to students you
are asked to respond to the questions by stating "yes or no"
in the column on the **left** of the page.

If you are not presently lending PVTR equipment to students,
you are asked to consider these questions as a poll of your
opinion and to respond to the questions by stating "yes or
no" in the column on the **right** of the page.

Please feel free to comment in the available space or on the
reverse of this page.

PRESENTLY
USING                                                    OPINION

yes    no    1 - Do (would) you insure the equipment?    yes    no

2 - Is (would) this insurance purchased by:

yes no       a - the student or the students' union?    yes    no

yes no       b - the institution?       yes    no

3 - Do (would) you find it essential that
a competent technician be on hand, to
instruct the students in the use of the
yes no       equipment, at the time of issue?     yes    no

4 - Do (would) you find it essential that the
equipment be tested by a competent
technician at the time it is returned?   yes    no
yes no

5 - What do (would) you consider essential
for student identification;

a - an identity card with the student's
yes no       photograph?       yes    no

yes no       b - clearance from a faculty member?    yes    no

yes no       c - both of the above?       yes    no

d - other (specify) _____

yes no   6 - Do (would) you make a careful record   yes    no
of all the accessories and videotape
loaned with the equipment?

7 - Do (would) you make a careful record
of equipment breakdown and equipment
yes no       problems experienced by students?     yes    no

8 - What is (should be) the maximum
lending period?

1 / 2 / 4 / 7 / _____ days

9 - Are there any additional comments that you would like to
make concerning the optimum conditions for lending PVTR
equipment to students?

APPENDIX C

Responses to the Questionnaire

# RESPONSES TO THE QUESTIONNAIRE

The following are the actual figures obtained from the interviews with the eleven librarians and the fourteen media directors. For convenience these results are totaled under the pertinent questions. The abbreviations "lib." and "m.d." are used throughout for librarian and media director respectively.

## PART A

1 - Are you familiar with the concept of the Encapsulated Video Systems (EVS)?

yes _____          no _____

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | | yes | no |
|---|---|---|---|
| | m.d. | 14 | 0 |
| | lib. | 8 | 3 |

2 - Can you name four materials which will be used with the EVS?

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | | 4/4 | 3/4 | 2/4 | 1/4 | 0/4 | Total |
|---|---|---|---|---|---|---|---|
| | m.d. | 5 | 4 | 4 | 0 | 1 | 14 |
| | lib. | 0 | 0 | 2 | 2 | 7 | 11 |

3 - Do you feel that the EVS will revolutionize information flow in the future?

yes _____          no _____

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | | yes | yes (qualified) | no | don't know | Total |
|---|---|---|---|---|---|---|
| | m.d. | 7 | 5 | 1 | 1 | 14 |
| | lib. | 4 | 2 | 2 | 3 | 11 |

4 – In what ways do you feel that EVS will revolutionize information flow in the future?

- - - - - - - - - - - - - - - - - - - - - - - - - -

Response    Those who answered yes did not all offer concrete

reasons for their positive answer.   Some of the

"feelings" are as follows: -

"They will revolutionize for culture, not news"

"Availability will be easy and cheap for universal individual use"

"Will be used as an enclyclopedia in homes",

"The mode of expression will change.  Traditional sources will be changed by the medium (portable video)."

"The image is more direct and concrete.  Education will be democratized by it"

"Portable video is now a revolution – the video cassette is ten years away"

"Individual purchase will change the nature of (network) programing.  Individual study will benefit.   Resources will be decentralized"

"It will be less costly than closed circuit television and will provide individual or 'canned' learning".

"It will be beneficial for learning specific skills-- like nursing"

PART B

1 – Does your library/media centre hold videotape recordings which are available for loan to individual students?

yes _____          no _____

- - - - - - - - - - - - - - - - - - - - - - - - - -

Response          yes            no

m.d.    13              1,

lib.    4               7

2a – In what form are these recording? – reel to reel ____

                                       – cassette ____

                                       – both of these ___

| Response | reel-reel | cassette | both | Total |
|---|---|---|---|---|
| m.d. | 11 | 2 | 0 | 13 |
| lib. | 3 | 0 | 1 | 4 |

2b – Do you have playback facilities available in the media centre/library?

                     yes ____             no ____

| Response | yes | no |
|---|---|---|
| m.d. | 13 | 1 |
| lib. | 4 | 7 |

2c – Can students use these recordings:

         – only in the centre/library?
         – only in the institution?
         – only out of the institution?
         – where they please?

| Response | 1 | 2 | 3 | 4 | Total |
|---|---|---|---|---|---|
| m.d. | 6 | 7 | 0 | 0 | 13 |
| lib. | 3 | 0 | 0 | 1 | 4 |

3a – Have you obtained (by purchase, rent or other means) EVS for your instituion?

                     yes ____             no ____

| Response | yes | no |
|---|---|---|
| m.d. | 4 | 10 |
| lib. | 1 | 10 |

3b - What system(s) are you using?

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Response

All five of these are using the Sony 3/4" video cassette.

4a - Are the students in your institution encouraged to use PVTR, instead of print, as a means of expression?

yes _____          no _____

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Response     yes                    no

   m.d.    14                      0

   lib.     4                      7

4b - What faculties, departments and programs are promoting this use?

Faculties            Departments            Programs

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Response  Thirteen of the fourteen media directors and two of the eleven librarians knew where the use of video was being promoted.

The various levels promoting video use are:

Faculty:  Commerce, engineering, education.

Department:  Philosophy, athletics, theatre, biology/chemistry, radiology, dental surgery, applied social science, humanities, management training, physics, nursing, English, poetry, linguistics, occupational therapy, psychology, physiology, communication arts.

Programs:  Quebec Study, Kaleidoscope Canada.

5a - Can individual students borrow PVTR equipment from your
media centre/library?

yes _____       no _____

---

Response          yes              no

     m.d.          11               3

     lib.          1               10

5b - What other faculties, departments or programs loan
PVTR equipment to students?

None _____

**Faculties**              **Departments**              **Programs**

---

Response   Five media directors and one librarian knew of
other sources of PVTR loan to students - these
are:

Faculty:  engineering, education

Department:  English, physics, guidance, psychology,
sociology, criminology

## MEDIA DIRECTORS ONLY

6 - Of all the videotaping which is done under your charge,
in your estimation, approximately:

a - what percentage of this videotaping is done on
studio equipment (including equipment on trolleys)? _____ %

b - what percentage of this videotaping is done on
portable (Porta Pak type) equipment? _____ %

---

| Response | 75-100% | 50-74% | 10-49% | 0% | Total |
|---|---|---|---|---|---|
| a) studio | 6 | 2 | 4 | 2 | 14 |
| b) portable | 3 | 2 | 6 | 3 | 14 |

7 - Do students have access to editing equipment for 1/2"
videotape?

yes _____              no _____

---

Response          <u>yes</u>          <u>no</u>

                   11                  3

8.- What equipment does the institution have for editing
    1/2" videotape?

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Response. Although, as shown above, students in all of the
         institutions do not have access to editing equip-
         ment, all of the institutions surveyed (thirteen
         of fourteen) do have editing equipment for 1/2"
         videotape.

         Eleven of the centres have Sony equipment and six
         of these eleven augment their facilities with other
         custom-built or commercial equipment.

         Two centres use Panasonic equipment exclusively.

         One centre uses IVC equipment.

9 - Comparing student use of video with student use of 8mm
    sound film;

    a - do you have commercially prepared 8mm sound films
        available for individual student use?

                 yes _____          no _____

    b - are students encouraged to use 8mm sound film in-
        stead of print, to express their ideas?

                 yes _____          no _____

    c - do students seek to use commercially prepared 8mm
        sound film in individual learning?

                 yes _____          no _____

    d - faced with the availability of both PVTR and facilities
        for producing 8mm sound film, which of these, in
        your experience, is preferred by students?

                 video _____          8mm sound film _____

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | yes | no |
|---|---|---|
| a) - | 3 | 11 |
| b) - | 3 | 11 |
| c) - | 3 | 11 |
| d) - | Video 13, Film 0, Don't know 1 | |

## PART C

1 - Does your media centre/library have a plan to stack EVS software in the future?

yes ___     no ___

- - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | yes | no |
|---|---|---|
| m.d. | 11 | 3 |
| lib. | 9 | 2 |

2a - Does your media centre/library have a plan for future provision of videotape playback equipment for student use

- in the media centre/library?     yes ___  no ___
- outside the institution?     yes ___  no ___

- - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | Inside | yes | no |
|---|---|---|---|
| | m.d. | 13 | 1 |
| | lib. | 8 | 3 |
| | Outside | | |
| | m.d. | 6 | 8 |
| | lib. | 2 | 9 |

2b - Does your media centre/library have a plan for future provision of 8mm sound film playback equipment for student use.

- in the media centre/library?     yes ___ no ___
- outside the institution?     yes ___ no ___

| Response  Inside | yes | no |
|---|---|---|
| m.d. | 12 | 2 |
| lib. | 7 | 4 |
| Outside | | |
| m.d. | 5 | 9 |
| lib. | 4 | 7 |

3 - Does your media centre/library have a plan to loan-out PVTR equipment and blank tapes (available to all students) in the future?

yes _____     no _____

| Response | yes | no |
|---|---|---|
| m.d. | 13 | 1 |
| lib. | 6 | 5 |

4 - In your opinion;

a - should videotape playback and PVTR equipment be available on external loan to students?

yes _____     no _____

| Response | yes | no |
|---|---|---|
| m.d. | 13 | 1 |
| lib. | 9 | 2 |

4 - In your opinion;

b - who should lend this equipment?

| Response | media centre | library | joint lib/med. | any | none | Total |
|---|---|---|---|---|---|---|
| m.d. | 10 | 1 | 1 | 1 | 1 | 14 |
| lib. | 1 | 5 | 1 | 2 | 2 | 11 |

## MEDIA DIRECTORS ONLY

5 - In planning future video purchases, what percentage of these would be in; 

- studio equipment? ____% - portable equipment ____%

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | 100% | 75-99% | 51-74% | 50% | 1-49% | 0% | Total |
|---|---|---|---|---|---|---|---|
| studio | 0 | 4 | 1 | 2 | 5 | 2 | 14 |
| portable | 2 | 3 | 2 | 2 | 5 | 0 | 14 |

6 - What is your justification for these percentage allotments?

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Response   The justifications given for these percentages were:

studio;   "Studio equipment is much more costly than portable equipment"

"A decision has been made to obtain colour recording equipment"

"Equipment is required to edit videotape from portable recorders"

"There are too many problems with using portable equipment. The weather is too cold or the sun is too bright or it is raining or one can't find the proper background"

"The editing time for portable equipment is too long"

"There is teacher demand for production"

portable:   "There is little call for production (from teachers)"

"We will borrow studio time from another institution if we need it"

"The studio is already established"

"The trend is 'out to the community'"

"There is a need for 'on location' taping"

"Portable equipment is much more useful"

## PART D

In this part of the survey the author would like to determine what you consider to be the optimum conditions for lending PVTR equipment to students.

If you are presently lending PVTR equipment to students you are asked to respond to the questions by stating "yes or no" in the column on the <u>left</u> of the page.

If you are not presently lending PVTR equipment to students, you are asked to consider these questions as a poll of your opinion and to respond to the questions by stating "yes or no" in the column on the <u>right</u> of the page.

Please feel free to comment in the available space or on the reverse of this page.

PRESENTLY
USING

1 - Do (would) you insure the equipment?

yes _____          no _____

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | presently using | | opinion | | |
|---|---|---|---|---|---|
| | yes | no | yes | no | Total |
| m.d. | 2 | 11 | 1 | 0 | 14 |
| lib. | 2 | 0 | 8 | 1* | 11 |

(* This person was doubtful)

2 - Is (would) this insurance purchased by:

yes   no   a - the student or the students' union?   yes   no

yes   no   b - the institution?                       yes   no

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | | presently using | | opinion | | |
|---|---|---|---|---|---|---|
| | | yes | no | yes | no | Total |
| a)- | m.d. | 2 | 11 | 0 | 1 | 14 |
| | lib. | 2 | 0 | 1 | 8* | 11 |

(* One person was doubtful)

| Response | | presently using | | opinion | | |
|---|---|---|---|---|---|---|
| | | yes | no | yes | no | Total |
| b)- | m.d. | 4 | 9 | 0 | 1* | 14 |

(* This person was doubtful)

| | | | | | | |
|---|---|---|---|---|---|---|
| | lib. | 2 | 0 | 6 | 3* | 11 |

(* One person was doubtful)

3 - Do (would) you find it essential that a competent technician be on hand, to instruct the students in the use of the equipment, at the time of issue?

yes   no                                                              yes   no
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | | presently using | | opinion | | |
|---|---|---|---|---|---|---|
| | | yes | no | yes | no | Total |
| | m.d. | 13 | 0 | 1 | 0 | 14 |
| | lib. | 2 | 0 | 9 | 0 | 11 |

4 .- Do (would) you find it essential that the equipment be tested by a competent technician at the time it is returned?

yes   no                                                              yes   no
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| | | presently using | | opinion | | |
|---|---|---|---|---|---|---|
| | | yes | no | yes | no | Total |
| | m.d. | 11 | 2 | 1 | 0 | 14 |
| | lib. | 2 | 0 | 9 | 0 | 11 |

5 - What do (would) you consider essential for student identification;

   a - an identity card with the student's photograph:

   yes  no                                       yes  no

5 - b - clearance from a faculty member?

   yes  no                                       yes  no

   c - both of the above?

   yes  no                                       yes no

   d - other (specify) _____

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | presently using | | opinion | | |
|---|---|---|---|---|---|
| | yes | no | yes | no | Total |
| a) - m.d. | 4 | 9 | 0 | 1 | 14 |
| lib. | 2 | 0 | 6 | 3 | 11⊛ |
| b) - m.d. | 0 | 13 | 0 | 1 | 14 |
| lib. | 0 | 2 | 0 | 9 | 11 |
| c) - m.d. | 9 | 4 | 1 | 0 | 14 |
| lib. | 0 | 2 | 3 | 6 | 11 |

6 - Do (would) you make a record of all the accessories and videotape loaned with the equipment?

   yes  no                                       yes  no

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | presently using | | opinion | | |
|---|---|---|---|---|---|
| | yes | no | yes | no | Total |
| m.d. | 13 | 0 | 1 | 0 | 14 |
| lib. | 2 | 0 | 9 | 0 | 11 |

7 - Do (would) you make a careful record of equipment break-
down and equipment problems experience by students?

yes   no                                              yes   no

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response | presently using | | opinion | | |
|---|---|---|---|---|---|
| | yes | no | yes | no | Total |
| m.d. | 11 | 2 | 1 | 0 | 14 |
| lib. | 2 | 0 | 9 | 0 | 11 |

8 - What is (should be) the maximum lending period?

1 / 2 / 4 / 7 / _____ days.

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| Response days | 1 | 2 | 3 | 4 | 5 | 6 | 7 | individual decision | supply & demand | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| m.d. | 3 | 3 | 4 | 1 | 0 | 0 | 0 | 3 | 0 | 14 |
| lib. | 2 | 1 | 2 | 1 | 1 | 0 | 1 | 2 | 1 | 11 |

9 - Are There any additional comments that you would like to
make concerning the optimum conditions for lending PVTR
equipment to students?

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Response  Seven of the people interviewed felt that students
should be made aware of the full potential of video
and should be trained in the use of video as a
medium of expression.

One media director posed the question of "Who
should be held responsible for broken equipment?"
and suggested that students be required to supply
their own videotape, since it is often necessary
for them to hold the borrowed tape for a long time
while they edit it.

APPENDIX D

Footnotes

# FOOTNOTES

1. Wilbur Schramm, et al, _New Media: Memo To Educational Planners_, Paris, UNESCO, 1967, pp. 65-67.

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12.  Cecil E. Wilkinson, "Canadian and U.S. media trends are right in step", School Progress, XLI, No.4, (1972) p. 39.

13.  Bernard Trotter, Television and Technology in University Teaching, A report to the Committee, on University Affairs and the Committee of Presidents of Universities in Ontario, Toronto, December, 1970, pp. 53-54.

14  Marshall McLuhan, cited in Michael Hoffman, "Oracle of the Electric Age", Georgian, XXXVI, (November 17, 1972), pp. 1,3.

15.  Torkelson, p.91

16.  Rene Maheu in the Foreword to New Media:  Memo to Educational Planners.

17  Ken Winslow, "The Future Lies? ......A Head," Educational Television, II, No.4, (1970), pp. 8-9, 32.

18  Robert Burns, "To a Louse," The Complete Poetical Works of Robert Burns, (Edinburgh, Thomas Nelson & Sons, Ltd., Mod.) p. 92.

19. Michael Shamberg, Guerrilla Television, (New York, Holt, Rinehart and Winston, 1971), pp. 45-49.

20. The term "Encapsulated video system(s)", abbreviated EVS, is coined here for convenience and clarity. With thirty and more different manufacturers of EVS it is not unexpected that the terminology varies. Thus, there is reference to cassettes, capsules, cartridges and discs. The term EVS will serve here to cover all the different software formats and the hardware systems to record on and replay the software. The term is not offered as a standard abbreviation. It should be noted that the machinery is not encapsulated, only the software.

21. Audio-Visual Communications, (April, 1972), p. 6.

    "Visual Tape System in '74', Montreal Star, February 16, 1973, p. A-10.

    VideoPlayer, (December, 1972), p. 22.

22. Some of these other companies are; videotape - Norton Simon, Inc., film - Eumig; disc - Akai and Matsushita.

23. VideoPlayer, (December, 1972), p. 11.

24. One of the local CEGEPs had Sony EVS equipment and were not satisfied with the stability of the picture and the quality of the colour.

    Videographe has had two machines since April 1972. They both worked well for two months and have been "down" most of the time since--despite "good servicing" by the Sony Company representatives.

    Robert Forget, Director of Videographe, Interview, July, 1972. Videographe is a video resource and consulting centre sponsored by the Challenge for Change/Society Nouvelle service of the National Film Board and seven other Federal Government departments. Videographe is located at 1604 St. Dennis Street in Montreal. Citizens can obtain free access to the video equipment and to services of the team of six people at the centre.

25. VideoPlayer, (October, 1972).

26. Frank Gillette, "EVR is Evil", Radical Software, 1, (1970), p. 4.

    Michael Shamberg, Guerrilla Television, (N.Y.; Holt, Rinehart and Winston, 1971), pp. 70-71.

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    Terry Brunsman, "A User Reports on EVR", Educational Television, IV, No.2, (1972), pp. 6, 39-42.

    "Video Cassettes—An EPIE Special Report" EPIE Report #39, V, No.3, (Dec., 1971), pp. 39-44.

27. VideoPlayer, (October, 1972), pp. 26-28.

    VideoPlayer, (December, 1972), pp. 44-47.

28. Mike Goldberg, "Video Exchange Directory", Access, No.10, (August, 1972), pp. 18-19.

    A new circuit attachment to the editing deck was developed and the NFB has applied for a patent on it. "Plans will be available to any group that would like them". Challenge for Change, No.8, (Spring, 1972), p. 22.

    Cecil E. Wilkinson, "Cartridge TV moves to Compatibility", School Progress, XLI, No.5, (May, 1972), pp. 44-45.

    A recommended standard cartridge for $\frac{1}{2}$" videotape was established by the Electronic Industries of Japan. The cartridge is adaptable to existing reel-to-reel vtrs and the case can be opened for editing.

    Dorothy Todd Henaut, "Thunder Bay Community Programs", Challenge for Change, No:8, (Spring, 1972), p.8.

29. Audio-Visual Communications, (July/August, 1972), pp. 6, 58.

    VideoPlayer, (December, 1972), pp. 4, 8-10.

30. VideoPlayer, (October, 1972), p. 46.

31. VideoPlayer, (October, 1972), p. 56.

32. Some of these companies and combines are: Video Programs International Ltd., Polymedia, Readers' Digest, Videorecord/McGraw-Hill, Harper and Row/Hanna-Barbera, Videothek Programm GmbH, Crown Cassette Communications Ltd., International Publishers Audiovisuals Association,

Cassettes International S.A., A.S. Bookman, Ullstein AV and most of the EVS-developing companies.

33. Thomas A. Edison, Dramatic Mirror, N.Y., June 9, 1913, Cited in G.A.B. Moore, The Development of Educational Technology, in Canadian Universities, (Doctoral dissertation, Syracuse University, 1971), p. 39.

34. Anthony G. Oettinger, "Educational Technology", Toward the Year 2018, ed. by The Foreign Policy Association, (N.Y., Cowles Education Corporation, 1968), p. 77.

35. Ulf Wennerberg, "Using the Delphi Technique for Planning the Future of Libraries", UNESCO Bulletin for Librarians, XXVI-5, (September/October, 1972), pp. 242-246, 252.

36. Anthony Brock, "Blueprint for a 'Learning Society'", UNESCO Courier, (November, 1972), p. 5.

37. Trotter, p. 11.

38. Shamberg, pp. 7-8, 32.

    Leonard Kirtman, cited in "Pornography causes traffic jam", VideoPlayer, (October, 1972), pp. 41-42.

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    Dorothy Todd Henuat, "Powerful Catalyst", Challenge for Change, No.7, (Winter, 1971), p. 5.

39. Carl Fredricks of Audio Magnetics Corporation, cited in VideoPlayer, (October, 1972), p. 14.

40. "Cobaloy", VideoPlayer, (October, 1972), pp. 23-24.

41. EPIE, pp. 39-44.

42. James G. Miller, "Deciding Whether and How to Use Educational Technology in the Light of Cost-Effectiveness Evaluation", Washington, D.C., Academy for Educational Development, Inc., April 1969, p. 2. ERIC ED 039 728

43. Research and Policy Committee, Committee for Economic Development, Innovation in Education: A New Direction For the American School, New York: Committee for Economic Development, July, 1968, p. 45.

44. Kaiser Aluminum News, XXVII, No.1.

    H. Allan Frederiksen, Community Access Video, (Berkeley, California, Book People, 1972), p. 1.
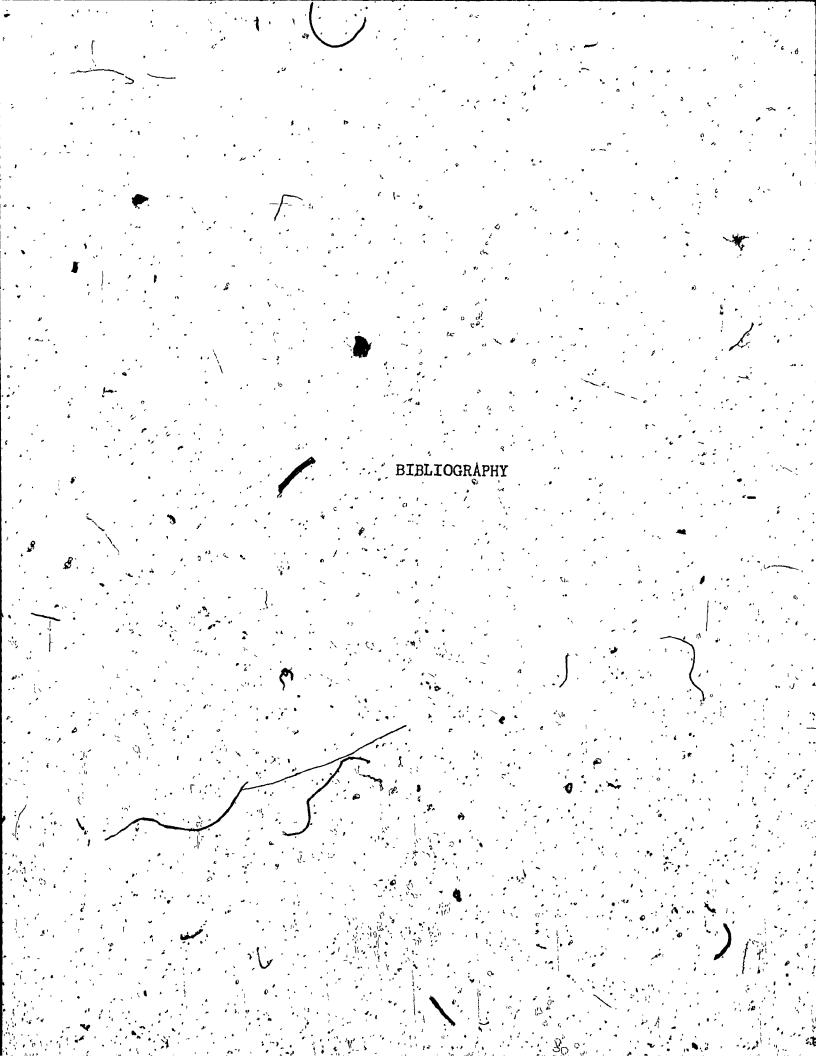
Guerrilla Television.

Radical Software.

Source: Catalog, (Chicago, Swallow Press, Inc., 1971).

45. At the rate of increase of technological developments, can we afford to wait until a body of scientific evidence on the effectiveness of the EVS is amassed?

46. James G. Miller, p. 5.

47. James G. Miller, pp. 13-14.

To Improve Learning, 11, p. 1011.

48. W. Dick, "Programmed Instruction over Closed-Circuit Television," Trends in Programmed Instruction, ed. by Wesley C. Meierhenry and Gabriel D. Ofiesh, (Washington, D.C., NEA, 1964), p. 251.

49. S.C. Gabor, "The Video Cassette as an Educational Reality," Educational Technology, (April, 1972), pp. 35-37.

50. Robert A. Weisgerber, "Trends, Issues and Activities in Individualized Learning", Stanford University, ERIC Clearing House on Media and Technology, (February, 1972), p. 5.

51. W.F. Jensen, reported in VideoPlayer, (October, 1972), pp. 55-56.

52. William Hanna, cited in VideoPlayer, (October, 1972), pp. 36-37.

53. Peter Hale, "Are Video Cassettes Obscured by Films?", Educational Media International, (Fall, 1971), p. 18.

54. VideoPlay Report, No.22, (December 6, 1971), pp. 2-6.

55. VideoPlayer, (October, 1972), pp. 8, 34-35, 44, 47.

56. Audio-Visual Communications, (July/August, 1972), p. 58.

57. Shamberg, p. 71.

58. Please refer to the text, pp. 4-5.

59. UNESCO Courier, pp. 20-23, 26-32.

60. Elizabeth Prinn, "Vive le Videographe.", Challenge for Change Newsletter, no.8, (Spring, 1972), pp. 18-22.

61. Shamberg, p. 21.

62. William A. Young in a letter to G.A.B. Moore and in reference to his article "Growth of Educational Technology in Canadian Higher Education" in the British Journal of Educational Technology, III, No.1, (1972), pp. 32-47. (Letter dated April 21, 1972).

63. George A.B. Moore, The Development of Educational Technology in Canadian Universities, (Doctoral Dissertation, Syracuse University, 1971), pp. 309-310.

64. Sir George Williams University, Master of Arts in Educational Technology course announcement, circa 1971.

65. Gail F. Hipsher, "On Defining the Field: An Open Hearing," Audio Visual Instruction, (June/July, 1972), p. 345.

66. To Improve Learning....., I, 7.

67. The only ¼ inch EVS that the author has seen mentioned in the literature is that by Akai. The development of "Cobaloy" videotape may induce others to produce ¼ inch EVS.

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