THE ROLE OF TELEVISION
IN ADULT EDUCATION

by

ALEXANDER McGECHAEN
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Department of Adult Education

The University of British Columbia
2075 Wesbrook Place
Vancouver, Canada
V6T 1W5

Date Jan 10, 1978
ABSTRACT

This study examines some of the fundamental issues concerning the role of television in adult education. The nature of adult education is examined using existing theory as a basis for establishing key concepts about the processes which go into making an educational experience for adults. These criteria are then related to existing knowledge about educational television with a view towards establishing definitions to describe the nature of ETV in adult education. The study draws a distinction between two different functions of television: first, its use in the formal instructional setting which is defined as educational and, secondly, its role in the natural societal setting which is defined as educative. The study shows that both educative and educational television have a part to play in adult education, the latter as an integral part of the process, the former as a device for information and enrichment which at times may be associated with adult education.

Educational television is further defined as a method of adult education, a way to organize individuals for purposes of instruction. ETV is also defined as a device where it performs one or more of the following functions: it extends educational experiences outside the boundaries of an institution or it acts as a source of information or enrichment within the formal instructional setting.
A conceptual scheme of seven categories is proposed to describe types of educative programs which under certain conditions may be of use in adult education but which are not really an integral part of the discipline because they are created for reasons other than education and do not display the characteristics necessary to be recognized as educational television.

Some issues concerning television's role in instruction are discussed and anomalies in the research are examined which have affected the development of theory in instructional television. An alternate approach to the study of ITV is proposed based on the recognition that television has a role to play in instruction as a communication device but is not, in itself, a complete instructional process.

Finally, the study examines the work of various agencies concerned with educational and educative programming. The particular focus is directed towards Canadian contributions, specifically the work of the Canadian Broadcasting Corporation. Some examples from outside the Canadian scene are considered as well, particularly the work of Britain's Open University. The contributions made by the CBC to educational television are found to be marginal, due largely to constitutional constraints imposed by the nature of Canadian federalism which restrict the CBC's role to that of advisor and resource agency to other educational institutions. On the other hand, CBC contributions
to educative programming are significant. As an agency for
mass communication it provides a wide range of programming
which serve to support its mandate to provide information
and enrichment programs for Canadian viewers.
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CHAPTER I

INTRODUCTION

Television is part of our way of life, and so is adult education. While one may appear to affect us more directly than the other, both play a significant part in providing us with information, skills and knowledge which affect our behaviour and, occasionally, touch the very heart of our existence as people. Sometimes the chance viewing of a television program will tell us something we did not know, show us how to do something with which we were not familiar, or cause us to question some of our beliefs. At other times, the technology of television will combine with the methodology of adult education to provide us with the same experience in an organized and systematic way. When the latter experience
occurs the event becomes of interest to adult educators and it is their concern with the medium which is the subject of this study.

Background to the Problem

Mention the term "educational television" to twenty different adults and they will respond with twenty different impressions of what it is and what it does. To the average person, ETV embodies everything which is good about television. It is enrichment programs for children, fitness programs, game shows, news, documentaries, debates, "artistic" dramas and university extension courses. Most people perceive ETV as an important activity worthy of everyone's attention, but they will also admit that it is something which they, themselves, rarely watch. The perceptions of adult educators towards ETV are no less diverse. They accept all the above examples and include others like closed circuit televised lectures, videotape recordings in the classroom, and microteaching. Their attitudes towards ETV run the gamut from outright hostility from those who see television as a threat to their livelihood to unequivocal endorsement from those who see its potential as a tool for mass education.

The apparent lack of consensus among experts and laymen alike over the nature and function of educational television is understandable given its development. ETV, as an institution, seems to have come into existence largely by default. Precedents
for using the mass media in education had been set long before television arrived as a communication medium. Canada's Farm Radio Forum, for example, used the medium of radio as a way of providing a national adult education program for farmers. The listening group technique, perfected in the Farm Radio Forum, became a model for mass adult education which has been repeated successfully in many countries of the world throughout the past thirty years. The arrival of television brought glowing predictions from adult educators about its potential to serve the same kinds of purposes as radio and so, like the Doctrine of the Self-Fulfilling Prophecy, everyone believed it to be so and it was. Educators, eager to use the device, have sometimes embarked on television projects without considering the role which the medium would play in the educational process. The proliferation of case studies and testimonials supporting ETV bear witness to the lack of congruency in approaching the study. On a more rigorous level, many empirical studies have been conducted over the last twenty years to examine television's contribution to instruction and a substantial body of knowledge now exists to explain some of the conditions under which ETV can contribute to the learning process. On various occasions, scholars have gathered together this knowledge in attempts to develop a theoretical framework for relating television to education. Many of these theoretical works will be examined in this study. Each seems to have three things in common. They
all reveal contradictions and anomalies which exist in the research making it difficult to develop a theory. Individually the findings are useful for designing and planning specific programs, but collectively the findings do not seem to relate satisfactorily to a systematic theory for the use of ETV in education. They all suggest the need for a broad theoretical base to assist researchers to relate their findings to education and, with two notable exceptions, they all largely ignore adult education. This study, then, will examine what is known about adult education, what is known about educational television, and explain the relationship of the medium to the discipline.

Definition of Terms

Since accurate definitions of adult education and educational television are key issues in this study, a major portion of Chapter II is devoted to examining in great detail what has been said about these terms and seeks to propose precise definitions which relate television to the discipline of adult education. It is important at this point, however, to establish some basic parameters for terms used throughout the study. The term adult education precludes the examination of issues and material related to the education of children, although it should be noted that due to the nature of the discipline it would be impossible to exclude absolutely the latter group. Adult education has a tradition of adopting material from other disciplines including learning theory derived from studies.
with pre-adult groups. Where possible, however, the examination of data will be restricted to that dealing specifically with adults. It should also be noted that a clear distinction will be made between adult "education" and "instruction". The terms are not used as synonyms within the discipline. Each is used to describe distinct phenomena. By the same token this distinction will be extended to include the differences between "educational television" and "instructional television".

The use of the term television connotes a range of meanings associated with the medium. There are basically three different kinds of distribution systems. The first is the most obvious: broadcast television, often referred to as "open circuit" or "RF" (radio frequency) broadcast. The next most common system for distributing television signals is via cable, sometimes referred to as "closed circuit" television, CATV (community antenna television), "cablevision", or "cablecasting". The third system for distribution could best be described as non-broadcast transmission and would include those instances where television equipment is used to present recorded or live television programs to specific groups or individuals. This system would include videotape recording and playback for individual or group instruction. It might also include the use of television hardware for self instruction as in the case of microteaching. While this study will concentrate mainly on examples drawn from the first two categories, it should be noted here that
the source of distinction between the distribution systems stems from technological considerations related to the hardware involved. These technical considerations do not necessarily have any effect on the design or content of the material carried by the medium.

The Scope of the Study

There are three main purposes to this study. The first is to define educational television in order to establish its position within the discipline of adult education. The second purpose is to examine some of the characteristics of the medium in order to set up criteria for evaluating its position within the instructional process. These factors may help in setting criteria for the design of ETV programs for adults which reflect factors related more towards theories of adult instruction than to the peculiar qualities of the medium. Finally, with these criteria in mind, the study examines a sampling of programs assumed to be adult education experiences. The majority of samples will be drawn from Canadian experiences with ETV, specifically programs designed by or co-sponsored with, the Canadian Broadcasting Corporation. While many samples are available from other countries, and in fact some are cited in this study, to date little recognition has been given to ETV in Canada except through the works of Rosen and of Thomas, two notable exceptions. The main object for presenting the sample
programs is to evaluate them using the criteria developed from the definitions. It is hoped that this approach will not only provide some historical perspective to the development of ETV in Canada, but more importantly point the way towards the development of a theoretical basis for setting evaluation criteria for measuring the role of television in adult education. It is not the purpose of this study to conduct empirical research into the effectiveness of television for instruction, but to examine a more fundamental question: is the design of so-called educational television programs such that it provides opportunities for learning to occur in a planned, systematic manner under the management of an educational agent? The analysis should result in the development of a conceptual scheme for classifying the medium of television within the discipline of adult education.

The Problem

Some specific questions under consideration in this study include the following:

1. Based on existing theories in adult education and educational broadcasting, what would be an appropriate definition for educational television?

2. Does educational television have any basis in adult education theory for being called educational?

3. How can programs which do not fit the definition be characterized?
4. What role does television play in learning and instruction?

5. What is the nature of the CBC's contribution to educational television?

Specific hypotheses have not been set because until the data are examined specific issues do not readily reveal themselves. The questions listed above are there to provide direction for the study. Analysis of the data may disclose more specific issues related to the central intent of the study, in which case these issues will be reported and discussed as they become apparent.

Limits of the Study

This study concerns itself mainly with broadcast television and its contributions to adult education. No consideration is given to school telecasts or broadcast television directed towards children which have been important contributions to the development of educational television, but which have little or nothing to do with adult education. It should be noted that this limitation cannot be completely adhered to in the examination of research material on television's role in instruction. The majority of this research has been directed towards, or involved, pre-adult groups. What research has been done with adults will be used wherever possible.

Other areas not under investigation include the contributions made by commercial networks and all ETV systems operated by provincial governments. These two areas would require studies of their own
which reach beyond the scope of this study.

Previous Studies

A review of previous research into studies concerned with educational broadcasting and adult education revealed only one study directly related to the present one. Its title was "The Use of Television in Adult Education: Research Evidence and Theoretical Considerations", an unpublished Ph.D. thesis from the University of California, prepared by Herbert Zettl in 1966. The study is now over ten years old and when compared to this one reveals the degree to which adult education has evolved towards a more precise discipline. For example, Zettl adopts a very broad definition for adult education, one which he admits is "complex, amorphous and evasive". It reflected theories of adult education commonly accepted at that time which sought to include a wide range of activities as adult education, some of which had questionable validity as educational experiences. Zettl's definition also focused mainly on the institution's role in adult education, an approach which set administrative criteria for judging adult education activities instead of examining adult education as a system of learning resulting from the interaction between an adult learner and an adult education agent.

The second major difference between the two studies lies in their approach. Zettl is mainly concerned with examining the use of educational television within the institution of adult
education. His concern lies with examining systems for distributing adult education to the masses and he describes practical ways for using the medium in programming. This study seeks to examine ETV's role in adult education, its position within the methodology of adult education. It examines programs assumed to be educational to see whether or not they qualify as educational experiences.

Three other studies were found which relate indirectly to this study. Morrison, Faris and O'Brien concern themselves with historical developments in educational broadcasting in Canada. In his M.A. Thesis, Morrison examined the development of radio education in Canada from 1929 to 1949. O'Brien's doctoral dissertation examined the historical development of the Canadian Radio League from 1930 to 1936 and Faris, in his study, assessed the evolution of the Canadian Association for Adult Education with particular emphasis on the Association's participation in the CBC Radio Forums, an early example of the use of mass media in adult education in Canada. None of these studies dealt with the use of television in adult education and, unlike the present study, none of them explore, in any depth, the more fundamental issue of whether or not educational broadcasting, be it radio or television, has any basis in adult education theory for calling itself educational. All three researchers assume that the term is valid. They use it to describe a particular variety of radio programming without necessarily addressing themselves to the issue of whether or not it is even an appropriate term.
Only one study has been found which examines CBC television's contribution to adult education. In 1960, Colin Smith completed an analytical survey of Federal Government contributions to adult education from 1920 to 1960. He devoted one section to CBC television where he listed some examples of television programming for adults. It was not the purpose of his study to examine the CBC's contribution in any detail and he did not examine the broader issue of ETV's place in adult education.

Other studies on ETV to be examined in greater detail later in this study include Campeau's selected review of research into the effectiveness of various audiovisual devices. Her review includes a section on television's effectiveness for instruction. John Ohliger's review of the mass media in adult education also contains material on ETV. In addition, Ohliger attempts to define the term educational television but he does not arrive at a satisfactory definition nor does he attempt to fit television into the methodology of adult education. Earl Rosen's book *ETV, Canada* discusses the role of television in adult education in Canada. It includes a chapter by Alan Thomas on "ETV and Adults" which represents the first major effort to describe the evolution of Canadian ETV for adults and to outline a plan for its development as a mass educational system.

Other studies which trace the historical development of ETV include two by Robert Carlson. Both, however, deal with
American television and approach the subject from the standpoint of its potential as a mass communication system. Carlson rejects any attempt by adult educators to absorb the medium into an educational methodology which he views as too narrow an approach. Carlson objects to the approach taken by adult educators like Verner who attempt to examine the role of broadcast television within the natural societal setting as well as the formal instructional setting. Verner's definitions and conceptual scheme for the classification of adult education processes are used in this study as a basis for examining the role of television in education. An attempt is made to show that the global approach of educators like Carlson does a disservice to the potential for television to contribute to the improvement and effectiveness of television for instruction and enrichment.

The present state of research into educational television indicates a need to examine the very nature of educational television, to see whether or not it has a place within the methodology of adult education and if so what its position should be.

Procedure

This study uses an analytical descriptive methodology as the approach to examining the research questions. So much material exists, both in adult education and educational television that an analytical approach would serve well as a basis for integrating the material to develop a theoretical basis for evaluating the role of educational television in adult education.
Once criteria have been set, programs can be described and analysed to see whether or not they constitute educational experiences for adults.

Sources of data. Data for this study has been derived from a number of sources:

(i) Monographs - written by recognized scholars in adult education and communication study. These works provide valuable theoretical material and models which are used for reference in developing the definitions and theoretical models in this study.

(ii) Research studies - in adult education and educational television which provide data to support or question particular issues related to learning theory and characteristics of television related to adult learning and instruction.

(iii) Reviews of research - into adult education and educational broadcasting. Included in this category are reviews of material on the mass media which help to add perspective to the current state of research into educational television. Reviews of research are often responsible for setting trends within the field of practice which are later reflected in the research. Reviews contribute to the development of theory by identifying new areas of research and
pointing out discrepancies which exist in current research. Reviews also act as an invaluable source of program examples which are used later in this study.

(iv) **Journals** - from both adult education and educational broadcasting. Journals provide a forum for both practitioners and researchers to express their opinions and experiences which can be useful in determining current attitudes toward an issue which may or may not be in turn reflected in the research.

(v) **Government records and reports** - which are used extensively in the latter part of this study as a source of material on CBC television's contributions to educational television. This source includes CBC research reports, position papers from government bodies connected with the CBC, parliamentary acts, sessional papers and Commission reports.

**Plan.** The study is organized around the questions developed in Chapter I. The questions are based on issues discussed in the background to the problem, and the review of previous studies. Chapter I also outlines the scope and limitations for the study.

Chapter II is devoted to analysing the role of television in adult education. A precise definition for adult education is
given and certain fundamental concepts in the discipline are discussed as they affect the role of television. A definition is created for educational television and it is tested against a number of known definitions. A second definition for educative television is developed to cover those kinds of television experiences which do not fit into the strict definition of adult education but which still have a part to play in providing potential learning experiences for adults.

Chapter III examines the role of television in adult instruction, describes the nature of adult learning and instruction and discusses the role television plays in these processes. Some fundamental issues in the approach to studies on instructional television are discussed and some possibilities are suggested for different approaches than those traditionally used.

Chapter IV reviews a sample of television programs assumed to be educational. These programs are examined in light of the conceptual schemes developed in Chapters II and III and classified accordingly as educational or educative. The major sources of sample programs are the ETV offerings developed by, or co-sponsored with, the Canadian Broadcasting Corporation. Other programs are also discussed but the intent here is to record Canadian contributions to ETV.

Chapter V summarizes the findings, draws conclusions, and presents recommendations for approaches to future research. The implications of the study's findings are discussed as they
affect the discipline of adult education.
FOOTNOTES


also: Canadian Broadcasting Corporation. What the Canadian Public Thinks of the CBC, Ottawa: CBC Research Department, 1963.

2. Westley, op. cit., p. 46.

3. See Chapter III. The range of perceptions among educators is revealed through their definitions.


5. For a discussion see: John Ohliger. Listening Groups: Mass Media in Adult Education, Boston University: Centre for the Study of Liberal Education for Adults, 1967.


see also: "Television and Adult Education", Food For Thought, 13:1, October 1952.


9. The exceptions are Ohliger and Campeau.


12. Ibid., p. 33.

13. For more discussion, see Chapter II.


16. Campeau, op. cit.

17. Ohliger, op. cit.

18. Thomas, op. cit.


CHAPTER II

ROLE OF TELEVISION IN
ADULT EDUCATION

One of the key issues in this study surrounds the definition of educational television. Defining the term is like trying to catch a chameleon; every time one gets close the beast changes colour. There seems to be no consensus about the nature, structure or characteristics of the medium. A multitude of terms and descriptions have been coined to describe just about as many different kinds of programs. For instance, there is Instructional Television, Public Television, Community Television, Cablecasting, Tele-education and so on.

Because this study concerns itself with examining the role of television as a medium for educating adults, it
seems logical to approach the issue from two directions: first, to examine the perceptions of adult educators concerning the nature of their discipline and how it relates to television, and then to examine the perceptions of educational television broadcasters about the nature of their medium and whether or not they recognize its "educational" potential. Perhaps by combining elements of both, a composite definition for educational television will emerge.

This approach, however, is fraught with difficulties because neither group seems to be able to agree on definitions within their respective fields let alone on a combined definition for educational television.

Definition of Adult Education

One of the best known definitions for adult education comes from Verner who, in 1962, stated that it was:

...the action of an external educational agent in purposefully ordering behaviour into planned systematic experiences that can result in learning for those for whom such activity is supplemental to their primary role in society, and which involves some continuity in an exchange relationship between the agent and the learner so that the educational process is under constant supervision and direction.

Recently, Verner re-defined his position to bring it more into line with the profession. His earlier statement focused more on the behaviour of the educational agent while tending to ignore institutional participation within the activity. The new
definition reads:

Adult education is any planned and organized activity provided by an institution or other social instrumentality that is intended specifically to assist an adult to learn and which is under the immediate and continuous control of an instructional agent who manages the conditions for learning in such a way as to facilitate the successful achievement of the learning objectives.

It is more comprehensive than his earlier statement because it recognizes the possibility for adult education to occur in areas other than in the traditional educational setting. Since the profession is as diverse as the society in which it functions, this definition is flexible enough to allow for all activities which might come under the heading of adult education.

We can see then, that for any activity to be classified as "educational" it must have three basic components: (a) INTENT, (b) PLANNING, and (c) MANAGEMENT. The institution or agent must intend to provide an experience where learning can occur. That experience must be planned out in such a way that learning can occur and the experience must be managed continuously to ensure that the learning objectives are achieved.

At this point it is important to note the differences between "education" and "learning" as the terms are used in adult education. Education may be defined as:

...the creation and maintenance of instructional settings that provide experiences in which both information and control of the appropriate intellectual behaviour are systematically and simultaneously acquired.
Learning, on the other hand, is defined as:

...the acquisition of information and the mastery of that intellectual behaviour through which facts, ideas or concepts are manipulated, related, and made available for use.

The distinction, then, is quite clear. The term "education" describes the framework of organization within which the activity called "learning" takes place. Learning, which is more or less a permanent change in behaviour, can occur anywhere and at any time. However, when the process becomes formalized and learning is controlled within a managed situation, the result is education.

This distinction is important, because for educational television to qualify as "education" it must be able to impart skills and knowledge in an intentional, systematic manner and most important of all, it must possess the capability to manage the learning event.

Concepts in Adult Education

In his conceptual scheme Verner describes the difference between the formal and informal settings for adult learning when he draws the distinction between "The Natural Societal Setting" and "The Formal Instructional Setting". An adult in the natural societal setting is constantly encountering situations where he can learn, but because the information and experiences are sporadic and unsystematic any learning which does occur in the normal course of daily life is largely the result of chance. To illustrate his point Verner cites television viewing as an example
of an experience where learning can occur in the natural setting. He presents the argument that an adult watching television for entertainment or enlightenment may be learning from the experience except that any learning which does take place is not under the control of any external management and therefore cannot be regarded as education. Verner points out that even if the producers of television programs are able to "incorporate...a well ordered and systematic presentation of material through sequentially ordered learning tasks...they cannot provide continuous supervision and management of the tasks resulting from the response of the learner in the performance of the tasks set by the program".  

While learning within the natural societal setting occurs largely in a haphazard and uncontrolled fashion the element of chance can be minimized when the activity is transferred into the formal instructional setting. As Verner explains:

Such a setting comes into existence when an individual or institution purposefully creates a situation in which the achievement of specific learning by a specific population is under the direct and continuing supervision of an instructional agent.

It is in the formal instructional setting where the process of adult education as opposed to adult learning occurs. The process of learning which occurs in the formal setting may not necessarily be any more effective than in the informal setting, but it is bound to be more efficient because of the presence of an adult education agent to manage the learning event.

These distinctions between the concepts of learning and
education and the difference between the settings in which learning takes place are important concepts in any approach to the examination of educational television. For television to qualify as education it must be able to impart skills and knowledge in a planned, systematic manner and, most important of all, it must possess the capability to manage the learning event.

**ETV in Adult Education Processes**

Besides defining the nature of adult education Verner has further contributed to the discipline by developing a "Conceptual Scheme for the Classification of Adult Education Processes". He divides adult education processes into three major categories: methods, techniques and devices. The term method describes the "basic fundamental relationship that must be established in order for education to proceed". It takes the form of a continuous relationship between an adult education institution or agent and an individual or group of prospective learners. A method describes the way in which potential learners are organized for learning and the key element is continuous contact between the learners and the agent who affects the direction and management of the event. Methods are further distinguished by their pattern of organization. There are individual methods which include as examples correspondence study, directed individual study, apprenticeship, and internship. There are group methods which include such things as a class, a discussion group, laboratory, assembly or meeting, workshops, and institutes. Finally, there are community methods whose structure
is determined by the social structure of the community. An example would be community development.  

Techniques are defined as the "relationship established by an institutional agent (adult educator) to facilitate learning...". Techniques are processes used by an adult educator to encourage, facilitate and manage learning. Examples would include such activities as lectures, group discussions and process demonstrations. The choice of techniques depends upon the learning objectives and the nature of the participants, both factors which fall under the management of the adult educator.

Finally, devices in adult education are defined as those:

various mechanical instruments, audio-visual aids, physical arrangements, and materials... used by adult educators to augment the processes employed [in an instructional event]

Verner is quick to point out that while devices "may enhance the effectiveness of a process, they cannot function as such independently". Educational television, then, would be classified as a device, similar to books, films, and blackboards in its ability to store and distribute information relevant to the content of a particular program, but without the capability to organize a learning event like a method or enhance the organization of the learning process like a technique.

Within his category of devices Verner draws a further distinction between four different types: illustration devices, extension devices, environmental devices, and manipulative devices. The first two categories are relevant to this discussion. Illustrative
devices are, as the term implies, anything which is used to illustrate or enrich the content to be learned in an instructional event. Extension devices are things which are used to "extend the reach of an educational method beyond the range normally expected in an institutional setting". Extension devices are used to transmit information or extend experiences in an efficient way to a larger variety of participants than are normally available to an adult education agent. Devices are, however, passive elements in an educational enterprise in the sense that they do not manage learning or provide continuous opportunities for learners to affect the directions of the event by interacting with the instructional agent.

Definitions for Educational Television

One role for television in adult education is that of:

- an illustrative or extension device capable of distributing information to enrich an instructional event or extending an existing educational method to individuals or groups who might not otherwise participate in an educational event.

A good example of television used as an extension device can be found in the model for Britain's Open University which uses TV as a way of reaching individuals who would not normally have access to educational programs offered through traditional systems. Television is used in this case as one of the major informational devices and as a way of organizing part of the learner's time. The program is supplemented with correspondence material and group meetings where participants have the opportunity to contact an
educational agent directly.

It is this question of the contact between learner and agent which creates some conflict between adult educators over the nature of television as a device. Some feel that the status of TV is somehow demeaned when it is classified as a device. They see television as a method and imply that by being so it should therefore enjoy a higher status within any conceptual scheme. The question of status is irrelevant in the sense that the success of any educational event hinges on the effective combination of all three components: methods, techniques and devices. Each is interrelated and it is possible that because of this interrelationship some confusion and overlap can occur at times. Verner himself admits that under certain circumstances a medium like television can find itself in the paradoxical position of being either a device or a method.

In some instances the use of an item determines its status. Television, for example, may be a method...or it may be a device when used in a class to provide information or illustration.

The distinction between TV as a method and TV as a device centers around the nature of its use within an educational enterprise. If television is used as the main system for organizing people to learn and if the learners have the opportunity for continuous contact with the educational agent to affect the organization and progress of the instructional activities then television fulfills the function of a method of adult education. If the medium is
used only to transmit information or experiences to learners without affording them the opportunity for continuous contact and feedback then the medium is being used as a device. For instance, if we return to the example of the Open University we can see that the organizational component of a method exists in this model to some degree. Scheduled television broadcasts are used as a way of organizing the learners, but it is only one of the ways of organizing the participants. There is also correspondence study, an example of Verner's classification of an individual method. More importantly, however, is the matter of contact between agents and learners. Because there is no direct and continuous contact between agents and learner during the television program, it cannot be said that television is being used as a method in this case. Instead, television is being used as an extension device to bring the classroom or the laboratory into the homes of the participants.

To summarize then, television may be used as an educational method but under much more stringent conditions than if it were used as a device. Television may be defined as a method of adult education when it is used as a way of organizing adults for a planned, systematic learning experience under the management of an educational agent and providing opportunities for continuous contact between agent and learner to affect the content and management of instruction.

At this point we must consider the logistical problems
which such a definition will place on the existing state of television technology. Researchers like Dubin point out that the present state of technology precludes any efficient, large scale deployment of what he refers to as "two-way television" which would amount to the use of television as an educational method. It might seem, then, that such a definition is unreasonable except that the system is possible and, given time, the technology could likely overcome the problems. The main point is that ETV must be able to satisfy the criterion of continuous contact between agent and learner before it can be regarded as a method of adult education.

Review of Definitions for Educational Television

With Verner's criteria in mind and the definitions generated in this study it remains to examine how other adult educators approach the issue of educational television to see what level of congruency, if any, exists within the discipline.

In his paper Mass Media and Adult Education, John Ohliger reviews a variety of definitions for Educational Television collected from many different sources. His review of literature represents a fair attempt to deal with the issues except that he fails to draw any conclusions based on these works. While he appears to agree with Rosen's contention that defining ETV is a necessary first step towards evaluating its effectiveness, Ohliger concludes his review by skillfully avoiding the issue when he says:

In this paper we will accept in general
whatever particular educators say the adult educational use of the mass media is.

We are to assume, therefore, that all the contradictory statements which Ohliger has described are valid.

Nevertheless, Ohliger's review is itself worth reviewing because it presents examples of many different points of view concerning Educational Television. It is worth noting at the outset that while Ohliger deals with the broad issue of the mass media in his paper, the section on definitions draws most of its material from works related to Educational Television. This approach is confusing and indicates some uncertainty in Ohliger's own mind about the distinction between television and the broader area of the mass media which includes radio, newspapers, magazines, books and films as well as other forms of communication.

Ohliger begins his section of definitions by weighing the pros and cons of the exercise itself. He quotes from Breitenfeld who wrote:26

Defining the 'mass media' grows tiresome... As we continue to struggle with definitions, and to wander about the philosophic meadows, I believe we neglect the job to be done...I hope we're not defining terms when the walls come tumbling down.

This argument, perhaps overstated, might have some validity except that it rejects the most important point. Unless educators and others operating in the area have a common set of perceptions about what they are doing and why, then there can be no hope of achieving consistency in performance, design or evaluation. No
one will be able to know with any certainty whether or not Educational Television has any basis for being called "educational".

To counter this somewhat pragmatic point of view expressed by people like Breitenfeld, Ohliger draws from Rosen, who in his book *Educational Television, Canada* defends the importance of defining terms:27

What is educational television? Perhaps the question seems less relevant than more basic issues regarding ETV, such as how to use it, who shall control it, and for what purposes. And yet, one cannot really answer these questions without a definition of the term "educational television". It is necessary, not as an exercise in pedantry, but because various interests - Departments of Education, universities, school boards, agencies of the federal government - are involved in educational television and the administrative and legal processes of working out relationships and responsibilities among them require a degree of consensus.

Rosen is one of the few Canadians to attempt a workable definition for ETV. He begins by describing the characteristics of educational programming which incorporate:28

1. Educational objectives, which establish the criteria that determine subject selection, content, and instructional procedure, and that lead to developing, cumulative learning experiences, directed at specific audiences.

2. An organized subject matter to achieve those objectives, presented in a sequence of programs.

3. A presentation that employs effective television techniques.
4. Presented at times convenient to the viewers at whom the program is beamed, with adequate schedule and program lengths to achieve educational goals.

5. Adequate promotion and development to give viewers opportunities to hear of the programs' existence, and to learn to view and use effectively.

Items one and two cover methodological considerations and closely resemble criteria expressed by adult educators like Verner. Item three, though imprecise, expresses program planning considerations and items four and five mainly describe administrative considerations and techniques for delivering the product.

Based on these characteristics, Rosen goes on to set a detailed two stage definition for Educational Television:  

Educational Television consists of
1. Instructional Television
   (a) Total teaching
      i. All teaching related to a prescribed course is given on TV, with or without the aid of correspondence, notes, tutorials, or other arrangements.

      ii. Instruction, largely intended for adults, is given on TV with the object of bringing about changes in information, knowledge, understanding, skills, appreciation and attitudes; or for the purpose of identifying and solving personal or community problems.

   (b) Supplementary teaching by television
      Some teaching related to a prescribed course is given on TV, with educational authorities conducting preparatory work, supplying additional information and follow-up work.
(c) Reinforcement by television
Related to a prescribed course, programs containing material
designed to reinforce and enrich
the course, and not readily
available to the class teacher.

2. General Cultural and Informative Programming
Designed for those viewers, adult or
child, who may seek to increase information
or knowledge, or to develop powers of
thought, appreciation, or criticism,
or who seek to be exposed to works
in the fields of drama, music, literature,
and the fine arts generally.

It is important to point out here that the definitions and
characteristics of ETV outlined by Rosen were adopted by the
Canadian Association for Adult Education in their Brief To The
Parliamentary Committee on Broadcasting presented to the government
in September of 1967. It is significant that Rosen should coin
these definitions and use them as a basis for his book. It appears
that he recognizes that one definition for ETV is not enough.
There are fundamental differences between television used within
the narrow confines of a formal educational system and TV used
as an informal medium for mass communication.

The term Instructional Television denotes a formal
structure for education and Rosen further breaks down this
category by describing three basic areas for its use. While the
descriptions appear somewhat vague in certain instances they do
support the need for intent and planning as necessary prerequisites
for developing experiences which are educational. The definition
falters, however, in the area of management. Nowhere under the
heading Total Teaching is it stated that there is a need for continuous management over the event including systems for learners to respond or methods for evaluating the program's effectiveness. Item number 1 - b, Supplementary teaching, implies the need for control and learner access, but the point is not stated explicitly.

Rosen's definition seems somewhat long and cumbersome. For instance, is there really any difference between #1 - c and #2? Both essentially concern themselves with television's capacity to provide enrichment types of programs. Whether or not enrichment programs are directed towards specific courses or to a general audience is really irrelevant. It depends on the distribution system which is essentially a mechanical procedure having little to do with methodological considerations.

Apart from some lack of clarity, however, Rosen's definition does draw an important distinction between formal and informal types of programs. For instance, he uses the term Instructional Television which also appears in Ohliger's review as a term coined by U.S. educators to describe formal types of ETV programs. Breitenfeld states that:

ITV is basically televised instruction, or the classroom format moved to a television studio with or without the usual group of students.

Ohliger further points out that the "Carnegie Commission on Educational Television accepts the definition of ITV "in the general context of formal education"". ITV, therefore, becomes a subclass
within the broader term Educational Television and describes formal types of programs. Balanced against this concept is the opposite subclass referred to as "Public Television". As Ohliger points out The Carnegie Commission defines PTV as that which "includes all that is of human interest and importance which is not at the moment appropriate or available for support by advertising, and which is not arranged for formal instruction". It is an interesting, if somewhat elliptical statement, but not nearly as interesting as the faux pas Ohliger himself makes directly after the quote. He states that:

The problem is that such distinctions [between ITV and PTV] leave out much that is educational. Where, for instance, does informal education fit in?

The answer, of course, is that it does not fit in anywhere. The very use of the terms informal and education is a contradiction. Education by its very nature presupposes some form of direction and management over learning. It does not seem reasonable to assume that this kind of control can exist in an informal setting. What Ohliger seems to be attempting to deal with is the type of television which might have some educational value except that it was not specifically designed for that purpose. A researcher like Zilk attempts to deal with the distinction when he coins the terms 'functional' and intentional':

Functional programs have a wide, but not a deep action, while intentional programs are destined to a limited audience but one which has a deeper influence.
The British Standing Committee on Television Viewing made a more concerted attempt to define differences when it drew up the classifications "educational" and "educative". The distinction they made was as follows:

We are guided by a concept of education which makes it clear that we are concerned not only with the development of skills, but with personal growth in understanding and sensitivity; with enhancing the power of judgement, not with the diffusing of judgements; in short with the kind of education that enables men and women to enlarge and interpret their own experience. We describe the programs which set out to do this in a systematic way as 'educational'. Those which do so as a by-product of being 'interesting' or 'entertaining' we prefer to distinguish as 'educative'.

It is in this very area where both educators and broadcasters seem to become confused. They tend to attribute educational value to certain kinds of programs whose primary intent is not to provide education. Both Earl Rosen and A.F. Knowles recount an example from the early days of broadcasting when a U.S. radio network, appearing before the Federal Communications Commission, offered, as an example of its educational broadcasting, a live performance of the Amos and Andy show. While the example may appear ludicrous in its implications, the underlying sentimentality may be justified to the degree that even an entertainment program might provide some opportunities for learning to occur even though the experience cannot be called educational.

While the 'Amos and Andy' example represents a gross illustration of the extremes which can be reached in order to
justify programs as "educational", many educators even find the area of informal programming to be a hazy one to describe in educational terms. For instance, Rosen includes in his definition of educational TV "...not only formal education...but...as well, any type of program which will stimulate a consciousness of community, an interest in, or understanding of one's environment". In his discussion on Public Television, Morgenstern promotes the idea that PTV "can and should be educational in its pursuit of excellence, its tolerance of dissent, its delight in beauty and its devotion to truth". A.F. Knowles reacts to any attempt towards formal definitions for formal types of TV programming by stating that "it is of the utmost importance to Canadian developments in continuing education that...an unrestricted approach be applied". Carlson also defends an unrestricted approach to ETV when he says:

Educational television...includes selective but constant coverage of great events...it includes serious drama, music, painting and all the sublime arts, including instruction as well as performance and display. It includes informational programs, both for the general public and for special groups.... It means showmanship in the best sense of the word, and a judicious admixture of entertainment....

All these approaches have one thing in common, they are too general to be of much use. Using these definitions one could attribute educational values to just about any kind of program. They not only reflect a confused idea about the nature of ETV, they also reflect confusion over the very nature of education itself.
What then, are the alternatives? First, it seems to be important to recognize a distinction between the terms formal and informal as they relate to the use of television in education. The Canadian Association For Adult Education adopted a definition for ETV which recognizes it as a formal type of learning experience. They define educational programs as:

...programs that are designed to provide a continuity of program content aimed at the systematic acquisition or improvement of knowledge by members of the audience to whom such programs have been directed, and whenever possible, under circumstances such that the acquisition or improvement of such knowledge is capable of being supervised.

This quotation has an interesting and familiar ring about it. With only a few minor changes it might be Verner's definition for adult education. This point is significant because it shows an attempt being made to adopt some standard frame of reference based on a common set of perceptions among educators. It is also interesting to note here that this definition prefaced the Association's longer more descriptive outline of ETV which Rosen used in his work.

The criteria outlined by the CAAE are expressed elsewhere in other works. For example, Thomas, in his article "ETV and Adults", which appeared as chapter four in Rosen's book, described the instructional pattern for ETV as made up of two major factors:

First...it demands control of time and facilities in a way that has simply not existed. Second, it demands non-broadcast contact with the adult student: before, to inform him of the time and general availability of the course; during, to
ensure some chance of exchange and
reinforcement; and after, to provide
some information that what was supposed
to be learned was in fact learned.

Once again the three criteria of intent, planning and management
are reiterated as key factors in distinguishing educational
experiences from any other kind of situation where learning might
occur.

This kind of distinction disturbs some educators. Carlson
in his review of literature on ETV launches into an emotional
attack against Verner and Knowles for what he sees as their desire
to reject ETV's potential for education by creating too narrow a
definition for adult education. At one point Carlson makes the
statement:

If the adult educator defines the field broadly and decides to recognize PTV as
a unique method, he can ignore as
ideological claptrap the attacks on it
by Verner and others for failing to
provide person-to-person interaction
and an evaluation process that measures
change in viewer behaviour. Verner and
most of the other adult education
theoreticians critical of PTV have
become locked into a narrow framework by
their unwillingness to accept PTV as an
adult education method with unique
approaches. They decry its broadcasting
and journalistic values. In their
commitment to their narrow definition
of the field, they demand that PTV submit
to such current adult education values
as interaction and quantitative evaluation.
They can accept PTV only as an audio-visual
technique or device to be used in concert
with some other overall method of adult
education that allows for their brand of
interaction and evaluation.
Carlson, quite simply, has missed the point. It is not reasonable to assume that Verner intended his definition to be so restrictive as to be narrow. On the contrary, it can be applied to practically any situation in life where learning can occur. By implying that these learning events need to be formalized Verner is not limiting the possibilities for education. Instead, he is saying that adult educators must draw upon the skills and knowledge within their discipline to create an approach in which learning can occur in a more reliable way than in the natural societal setting. It is educators like Carlson who misinterpret Verner's definition and demonstrate their inability to apply the methodology of adult education within a broader context. It is Carlson who espouses "claptrap" when he attempts to defend the indefensible. If Verner attacks television's "broadcasting and journalistic values" (and there is no evidence that he does) he is essentially criticizing the illconceived educational values which appear so often in so-called "educational" programs. Like it or not, as an educator Carlson must accept the concepts of interaction and evaluation as important parts of any educational experience. To do less would be to reject the entire notion of education without supplying any workable alternatives. Carlson may have grounds to attack Verner's examples of ETV as out-moded and unsuited to the properties of the medium, but he must be careful not to reject the fundamental concepts in adult education. To do so would be to reject the whole need for a methodology of adult education.
What is most disturbing about Carlson's position paper is his attitude towards the effect of definitions like Verner's on the development of Educational Television. He contends that the application of techniques like evaluation and learner participation in programs will result in the creation of a medium which will be used by educators to "norm" or placate people.

...(the) use of PTV to norm people, it would seem, could be reasonably consistent with the philosophy of adult education and the views of PTV articulated by such advocates of the narrow approach as Coolie Verner, Eugene Johnson and especially Malcolm Knowles. Johnson's view of PTV as a two-way electronic "town meeting", with provisions for evaluation, has most of the requisites for Blakely's brave new America.

It seems quite unreasonable to assume that participants who have access to the educational system will be victims of any kind of "brainwashing". It also seems unreasonable that continuous evaluation of programs will do anything but promote change and improvement in the educational design. It is interesting to see what Carlson offers as an alternative: television programs on news and public affairs designed by professional broadcasters and beamed to mass audiences who have no opportunity to react to the program or influence its design and content. The argument is ludicrous and makes his follow-up statement appear even more ironic:

It may take very little to turn a relatively benign and unique method like PTV into a dangerous audio-visual device for efforts to change behaviour.
If any plan represents a potentially dangerous use of the medium it is Carlson's, by removing the influence of adult education methodology, by placing control in the hands of a few broadcasters whose primary concern is not education, by producing programs designed for mass viewing, and finally, by removing any possible chance for direct involvement by the viewer.

Carlson's whole approach has been to attempt to fit television into education instead of defining what the nature of education is and then examining the characteristics of television to see where it would fit into the system. His approach seems to have led to frustration and this frustration has been vented against theoreticians like Verner. The frustration is understandable but, perhaps, mis-directed. The only error made by Carlson and others in this review is to approach the study of educational television from the standpoint of content rather than process. In other words, Carlson has singled out types of television programs and used the content as a basis for generating the assumption that subject matter is a determinant in whether or not a television program is educational. In fact, as we have seen, the criteria for judging the educational value of television have little to do with the subject matter of any particular program.

**Definition for Educative Television**

Nevertheless, researchers like Carlson have raised a significant point. What about those informal types of television programs which may have the capacity to promote learning or may
be used to provide enrichment or information within a formal instructional setting? They differ from formal educational programs insofar as their intent is not to provide educational experience. It seems that the most appropriate term to describe these experiences is educative. The term is an adjective which literally means "having to do with education" or "tending to educate". The term was used by the British Standing Committee (see earlier reference) but their definition seems somewhat vague. They simply use it to describe any television program which does not conform to their rather vague definition of educational television.

Henry Alter also refers to "educative" television. To him the term also describes programs

...tending to educate. The distinction [between educational and educative] is important, and is still not widely recognized.

Other educators like Rosen identify the style of programming but use different terms most often related to the content rather than the design of the program. In ETV, Canada, Rosen refers to non-educational programs as "General Cultural and Informative Programming". Rosen's term was also adopted by the Canadian Association For Adult Education to describe programs which could be termed educative. A common thread running through all the terms is the idea that such programming provides information or enrichment on a particular subject. Based on these common perceptions among educators and educational broadcasters it is
possible to develop a definition for educative television to be used in this study.

Educative television refers to programs which provide some opportunity for learning to occur but which are not specifically designed for that purpose. Instead they are designed to provide information or enrichment and can be used as such within an instructional setting.

The big difference between educational television and educative television is that the former is concerned primarily with the design of instruction while the latter is primarily concerned with the presentation of content.

Almost any television program can be identified as educative depending on the type of use to which it is put, but normally the term is used by educators to describe program areas like news and public affairs, though even certain kinds of entertainment programs are included when they are deemed to be "legitimate art". The purpose of educative programs is two-fold: they can be used within a formal instructional setting as a device to supplement and enrich instruction or they can be used to transmit information and experiences to the general public.

For purposes of this study a classification scheme has been devised which will be used to identify different types of educative programs in television which should help to put television's role in this area into perspective. The scheme relates only to educative television and not educational television because the term "educational" describes a process, not a product.
Seven major categories can be identified to describe a variety of educative programs. 50

(i) **Instructive Programs** - this term describes programs listed by stations themselves as "educational". They have the appearance of a formal structure by adopting a lecture demonstration type of format. Examples include programs like *Sunrise Semester* and *University of The Air*.

(ii) **News and Public Affairs** - this category covers local and national newscasts plus editorial and public affairs programs sponsored by the TV stations' news departments.

(iii) **Documentaries** - programs which give a dramatic interpretation of social issues. They may include certain related non-fiction subjects like travel programs and nature series.

(iv) **Interview Programs** - programs designed to provide information and opinions on current events and other subjects of interest to the general public.

(v) **Discussion Programs** - less structured interview-type programs primarily concerned with providing entertainment but which may have limited educative value depending on the subjects.
(vi) **Process Demonstration** - which includes programs like exercise or cooking shows; ones which invite audience participation, but provide no opportunities for interaction.

(vii) **Cultural Programs** - this category includes dramatic and entertainment programs. They too, under certain circumstances, have some educative value, but the criteria commonly used to judge their effectiveness are too imprecise. As previously mentioned their inclusion seems to be based solely on their content. The more "legitimate" the dramatic subjects, the more likely they are to be regarded as enrichment.

**Summary of Terms**

To summarize then, it should be noted that the differences between educational and educative television revolve around the presence or absence of three factors. The first is intent: educational television is created on the basis that it will contribute to the systematic acquisition of skills or knowledge by a given individual or group whereas educative television is designed to provide information or enrichment which may or may not be part of an educational event. Secondly, educational television is designed to be used either as a method for organizing learners or as a device to supplement or extend instruction whereas educative television is designed and presented as a unique experience,
not as a part of an educational process. Finally, educational television includes ways for educational agents to manage the instructional experience whereas educative television is designed to be used as a one-way flow of information or experience without systems for directing and modifying the experience to meet the educational needs of the viewer.

It would certainly be presumptuous at this stage to expect everyone to accept the distinction between educational and educative television and perhaps many never will. Still, it is important for adult educators to accept the difference if television is to have any useful and measurable effect in the development of educational systems. For this study, at least, the distinction is a key element in examining the role of television in adult education.


4. Ibid.


7. Ibid., p. 181.


11. Ibid., pp. 183-192.


15. Ibid.

16. Verner and Booth, op. cit., pp. 84-86.

17. Ibid., p. 85.


21. Ibid., p. 36.


27. Rosen, op. cit., p. 87.

28. Ibid., pp. 87-88.

29. Ibid., p. 89.


32. Ohliger, op. cit., p. 4.


34. Ohliger, op. cit., p. 4.

35. Ibid., pp. 4-5.

36. Ibid., p. 5.

38. Rosen, op. cit., p. 66.


42. Knowles, op. cit., p. 118.

43. Rosen, op. cit., p. 57.

44. Carlson, "ETV in its Cultural and Public Affairs Dimension...", op. cit., p. 4.

45. Ibid., p. 12.

46. Ibid.


49. Rosen, op. cit., p. 89.

50. Seven categories have been chosen arbitrarily to cover the major types of content found on television. The list could be longer because the content of programming is so varied.
CHAPTER III

ROLE OF TELEVISION IN INSTRUCTION

Once a definition has been established which describes television's role in adult education the next step is to examine its role in instruction. This procedure involves three activities: first, to establish the difference between learning and instruction, next to describe the nature of instruction and television's relationship to it and finally, to identify some of the factors associated with television's effectiveness in instruction.

Relationship of Learning to Instruction

Education has been identified as an event in which an individual or group participates under the supervision of an agent
to acquire certain specified skills or knowledge. Learning has been described as the internal process "through which an individual acquires the facts, attitudes, or skills that produce changes in behaviour". Instruction has been defined by Gagne as "the set of events designed to initiate, activate, and support learning in the human learner. Such events must first be planned, and secondly, they must be delivered, that is made to have their effects on the learner". Verner defines instruction as a "continuing process that aims to facilitate learning by establishing the appropriate external conditions for learning and by managing the learning situation". Instruction, then, like learning, is also a process except that the instructional process is external to the learner while learning is an internal process leading to a change in behaviour. Gagne and Verner identify two key activities associated with instruction: design and management. Both activities are important and not exclusive.

The Learning Process

Learning is a complex and abstruse process. No one really knows with any certainty what actually happens when learning occurs. It is possible only to observe the results which manifest themselves as changes in the behaviour of the learner. This conundrum has not restricted educators from drawing together what knowledge is available to develop a theory about learning. One of the most noteworthy theorists is Robert Gagne who has constructed a model to describe what he
calls the "processes of learning". The model identifies eight phases which occur during the act of learning and describes the processes associated with each.

**Motivation phase.** Gagne describes the motivation phase as an all-important prelude to learning. As he points out, "in order for learning to occur, one must have a motivated individual". He identifies two sources of motivation. The first is that which is internal to the learner, generated from his own need to acquire knowledge or skills. It is called **incentive motivation** which Gagne contends "reflects the natural tendency of the human being to manipulate, dominate, and "master" his environment". The second form of motivation comes into being on those occasions when a learner is not internally motivated. It is necessary then to generate motivation within the learner by a process called **expectancy** in which the anticipation of a reward for achieving a goal acts as an enticement to encourage the learner. It is the role of the instructor to develop means for generating expectancies which will motivate a learner to begin.

**Apprehending phase.** Once a learner has been motivated he becomes involved in the second, or apprehending phase in the learning process. Here the learner "must attend to the parts of the total stimulation that are relevant to his learning purpose".
Gagne suggests that:  

...the process of attention is usually conceived as a temporary internal state, called a mental set, or simply a set. Once established, a set operates as one kind of executive control process. A set to attend may be activated by external stimulation and persists over a limited period of time alerting the individual to receive certain kinds of stimulation.

Once the learner adopts the attentional set he then selects from the total stimulation those parts which are relevant to his needs. In order to be able to discriminate between relevant and irrelevant stimulation the learner practices selective perception which permits him to attend to the significant parts of the stimuli and ignore the irrelevant material.

Acquisition phase. The first two phases in Gagne's model really describe the factors which help to set the stage for learning. It is during the acquisition phase where the "essential incident of learning" takes place. Gagne describes the essential incident of learning as "the moment in time at which some newly formed entity is entered into the short-term memory, later to be transferred into a "persisting state" in long-term memory". When a learner first encounters some piece of material relevant to his needs he transfers or interprets it by a process called coding into a form which is meaningful to him and which can be stored in the short-term memory. As Gagne explains, "What is stored, as the result of the act of learning, is apparently not an exact representation
or "mental picture" of what was seen or heard.\textsuperscript{12} Coding is the way the learner interprets and stores the information in a form which is meaningful to him. The process is both individual and impermanent. Material stored in the short-term memory will distort or disappear quite quickly unless some means are achieved to convert it into a state of long-term storage. Material can be retained longer if it is coded in certain ways, "classified under previously learned concepts, or simplified as principles."\textsuperscript{13} As Gagne explains, coding "in this case...may...serve the purpose of making whatever is learned more highly memorable."\textsuperscript{14} It is here where the instructor plays a significant part in the learning process, though Gagne qualifies his role by pointing out that although the instructor can help, the process of coding is idiosyncratic, "the learner may use his own schemes" which can often be better than those supplied to him.

\textbf{Retention phase.} The most mysterious part in the learning process occurs in the retention phase, the fourth level in Gagne's model. It is during this phase that the "learned entity...enters into the memory storage of the long-term memory".\textsuperscript{15} Not much is known about the peculiar characteristics of memory, but Gagne identifies three possibilities which might explain some of its properties. There is evidence which indicates that "what is learned may be stored in a permanent fashion, with undiminished intensity over many years, as though it were stored on magnetic tape."\textsuperscript{16} There is also evidence to suggest that
some things which are stored in long-term memory tend to "fade away" with the passage of time. After many years an individual may be able to recall significant events from his past but will be unable to recall specific details connected with those events. Finally, there is evidence that certain factors can interfere with long-term memory storage. Hunter, for example, refers to the phenomenon of "retroactive interference" which describes "a decrement in remembering which is brought about by the interpolation of some particular activity between the time of the original learning and of the remembering".\(^{17}\) If, after an initial learning event, the learner undertakes another activity which is similar, the second activity will interfere with the first causing him to confuse the two and will result in his learning less than a learner who has not encountered the impendence effect. Interference tends to obscure older memories or confuse them with newer ones, but it is uncertain that interference occurs in the memory process itself, or whether it occurs in the retrieval phase when the individual attempts to recall the material stored. One thing seems fairly certain: "...there is little indication that newly learned entities take the place of previously learned things because there is "no more room"."\(^{18}\) The capacity for memory storage in the human being seems to be limitless.

Recall phase. For learning to occur the process must involve a phase "in which the learned modification is recalled so
it can be exhibited as a performance. The process at work during this phase is called retrieval. Somehow, the memory store is searched and the learned entity revived. What has been stored becomes "accessible"." 19 As Gagne points out an instructor can assist the learner to retrieve material which has been learned but it is important for the learner himself to develop strategies which "enable him to do this himself". 20

**Generalization phase.** For the learner to simply recall what has been learned is often not enough. He may be asked to do so in circumstances different from those in which he first learned the material and he may be required to apply what he has learned to novel situations. 21 In other words, he may be asked to generalize beyond the limits of his previous learning. "The recall of what has been learned and its application to new and different contexts is referred to as the transfer of learning, often shortened to transfer". 22

**Performance phase.** This phase of learning is fairly obvious. Here the learner demonstrates what it is that he has learned. It provides the learner with the opportunity to demonstrate his knowledge and provides evidence to the instructor that he has learned the material correctly. Any corrections or modifications to the process, however, occur in the last phase in the form of "feedback".
Feedback phase. Here the learner receives confirmation that his learning is correct. "This "informational feedback" is what many learning theorists consider the essence of the process called reinforcement". It brings the learning process full circle in that the expectancy generated "during the motivational phase of learning is now confirmed during the feedback phase". Reinforcement is a key element in the learning process and, as Gagne points out "reinforcement operates in the human being not because a reward is actually provided, but because an anticipation of reward is confirmed". Feedback provides the support for learning and the opportunity to modify and direct the process towards the achievement of appropriate learned behaviours.

The Instructional Process

For all but one of the eight phases of learning Gagne describes instructional processes which can influence or facilitate learning. The exception, of course, is the retention phase which is an internal process of memory storage unique to each learner. Nevertheless, instruction can affect the learner's performance in the other seven phases. For instance, the instructional agent can affect a learner's motivation by informing him of the instructional objectives. As we have seen, the role of the instructor is to develop within the learner the anticipation of a reward for achieving specific learning objectives. An instructor can affect the apprehending phase by directing the learner's attention and encouraging him to discriminate between those parts of the learning
experience which are relevant to his needs. By stimulating recall and providing guidance, the instructor can affect the acquisition phase and help the learner to achieve the "essential incident of learning", the point at which new material is absorbed later to be exhibited as a change in behaviour. To aid in the recall phase an instructor can develop instructional events to enhance retention of material learned. During the generalization phase, the instructor can assist the learner to understand ways of applying his knowledge "to the acquisition of new capabilities". Finally, by eliciting performance and feedback phases which are "the occasion(s) on which the performance that represents the learning outcome is elicited...".

Role of Television in Instruction

Does television have a role to play in any of these instructional events? Gagne concludes that it does, particularly in the first three phases: motivation, apprehension and acquisition. Gagne considers that "viewing television appears to be an activity which is inherently motivating". Other adult educators agree with Gagne that television is a powerful medium for motivating people. Carlson points out that it is an ideal way of presenting issues for debate and discussion. Ohliger also makes the point when he discusses television's use with listening groups. Connected with these characteristics is the feeling expressed by scholars like Gagne that television can affect attitudes to some degree. Most educators identify television's ability to provide
enrichment types of programs as a useful function both within and without the formal instructional setting. Even those educators like Verner and Carlson who are polar opposites in many of their views agree on the potential for television to enrich people's lives. Neither would deny also that those types of programs provide some opportunities for learning to occur although they would not agree on the amount of learning which might take place.

During the second phase of learning, called apprehending, Gagne considers that the "motion and abrupt changes which may be introduced in television programs are of particular use in gaining and controlling attention". Here Gagne is pointing out that the unique properties of the medium itself play an important part in the instructional process. This area is a delicate one to examine and will be covered in greater detail later in this chapter.

Gagne sees television's role in the third, or acquisition phase of learning as particularly important. Here television is able to perform a useful coding function because it "can show pictures of actual objects of infinite variety and thus convey concepts in concrete form". Television can also play an important part in organizing information, because television incorporates moving pictures and the element of motion provides a "meaningful context to which the learner can relate new information".

Gagne also points out the limitations of the television medium particularly in the performance and feedback phases in
the learning process. In this situation television seems unable:

...to require performance of the learner and to respond to this performance with feedback. One cannot be certain that the learner has learned to use the new concept he saw on the screen. In addition, the television picture cannot make individual corrections or confirmations of the learner's performance.

In other words, television has a significant part to play in the presentation of instruction but it is unable to manage the process. Television's relationship to instruction, then, resembles its relationship to the educational process. As we have seen earlier, for television to be regarded as educational it must be able to effect direct and continuous management over the learning process. For ETV to be classified as an instructional process it must also exert the same influence on the learner. Television, by itself, therefore cannot be regarded as instruction but can contribute significantly to parts of the instructional process. The term "instructional television", however, is likely to remain with us at least as a popular description for formal types of television programs as illustrated in Chapter II. Still, it is important for the discipline to understand the distinction and use the term correctly.

**Effectiveness of television for instruction.** Many studies have been undertaken to examine the qualities of television which make it an effective device in an instructional setting. Scholars like Travers, Lumsdaine, Ohliger, Chu and Schramm
have, in turn, analyzed and reported on many of these studies using them to establish certain conditions under which television may help, hinder, or have no effect on learning and instruction. The results of their work have helped to form a theoretical base for explaining the role of television in instruction and, to a great extent they have influenced the development of research into ETV by pointing out new areas for research. The purpose for including their work here is to examine how it complements or conflicts with existing theories of adult instruction.

One of the few features which everyone seems to agree upon is television's capacity to distribute instruction effectively. For instance, Chu and Schramm conclude after an exhaustive review of ETV studies that one of the most important advantages of television lies in its capacity to:

...share a good teacher with a very large number of classes, rather than one. It can introduce a variety and quality of visual and auditory experiences and demonstrations that would be impossible for most individual classrooms to equal, but are quite feasible for a central programming service. It can carry teaching where there are no schools - for example, to remote areas or to students who are home-bound.

Another important advantage of television is its cost-benefit factor. It is regarded as a relatively inexpensive way of distributing instructional experiences to large numbers of people. These conclusions have important administrative implications for the use of television in instruction, but do not really relate
to the issue of what effect the medium has on the learning process.

There appears to be some basic agreement that television is an effective device for instruction. The qualities of the medium which make it so include certain organizational, presentation, and motivational factors. Television seems to be able to catch and hold a learner's attention.¹ It is able to present material organized in a simple and meaningful way.² It can provide cues which help the learner to discern the important parts of the message, and in certain circumstances, television is seen to possess the capability to provide knowledge of results (feedback) to the learner, but only to a limited degree and not continuously as in the formal instructional setting.³

One major problem with the research into ITV arises from the way in which some researchers approach the study. Lumsdaine points out that many studies into television's effectiveness for instruction have developed out of attempts to explore the effects of specific physical properties of the medium under unique conditions without necessarily relating those properties to the instructional process.⁴ Researchers have created descriptive categories based on physical characteristics of the medium which produce strange anomalies. For example, studies on the use of colour seem to indicate that colour does not improve learning.⁵ At a practical level this finding does not seem to make any sense. There are many instances where colour might be an important factor for
communicating content. Lumsdaine lists some instances where colour can be important to the communication of the content, but the question of the presence or absence of colour in all television presentations is really not a factor which should have anything to do with learning.\textsuperscript{46} Why these kinds of studies have been included in a theoretical model for instructional television seems puzzling until a closer look reveals an interesting historical explanation for their existence. Most of the studies on colour were undertaken during the 1950's, and early 1960's. During the 1950's colour film was not in widespread use and colour television was still in its infancy. The cost of producing material in colour was much greater than for black and white which gives credence to the possibility that economic considerations were the real motivation behind the studies. It is possible these studies were undertaken to provide a scholarly rationale for avoiding the expense of turning to colour presentation. It does not seem reasonable to assume that the mere presence or absence of colour would, in itself, affect the process of learning one way or the other. It might certainly play a part in cases where colour discrimination was an important element in a particular learning task, but as researchers like Travers point out, the studies reviewed by his associates dealt with the broad issue of colour versus black and white and not with specific instances where colour might play an important part in learning.\textsuperscript{48} The colour issue seems to have been further confused by what appears
to be an inappropriate interpretation of the results by the reviewers themselves. Most studies concluded that there was no significant difference found between learning by black and white as opposed to colour productions. Chu and Schramm, however, re-interpret these findings to mean that the presence of colour did not seem to **improve** learning. Such a conclusion is, perhaps, incorrect. A finding of "no significant difference" indicates that the presence of colour did not **affect** the learning when compared with another presentation technique. Colour then, neither detracts nor improves the amount of learning, it simply does not affect the process.

In Chu and Schramm's work, the issue of black and white versus colour production forms one of sixty propositions which the authors make based on their analysis and classification of research studies on ITV. They group these propositions into a classification scheme which reveals four basic trends in the research. There are studies concerned with the administration and distribution of ITV programs; studies which examine the design of content in the programs; studies which examine the properties of the medium which affect the transmission of content; and evaluative studies which examine attitudes towards instructional television. Issues surrounding the distribution of ITV will be dealt with later in this chapter and questions surrounding attitudes towards using the medium have already been aluded to earlier. The main issues of concern here are the design of content in television
programs and the effect which the properties of the medium have on the presentation of the content.

**ITV and adult instruction.** One of the most thorough reviews of recent research on instructional television was undertaken by Peggie L. Campeau for the Council of Cultural Cooperation of the Council of Europe. The review covered a range of studies undertaken from 1966 to 1971 and served to supplement earlier reviews by Briggs, Campeau, Gagne and May which had covered the period prior to 1965. While the review covered a variety of audiovisual media, one of the major concerns was with television and the most interesting aspect of that research was that it focused exclusively on material related to adult education. Using fairly rigorous screening criteria, Campeau examined reviews of "literally hundreds of comparative effectiveness studies" and found no conclusive difference between instructional television and face-to-face live instruction. Some researchers like Dubin have indicated some differences between live and televised instruction and Campeau explains three of the major findings.

First, when teaching methods were matched, face-to-face instruction was only superior to two-way instructional television, and then only when the lecture method was used by each medium. ("Two-way" television provided students and lecturer with audio facilities for exchanging questions and initiating discussions, thereby approximating a "live" instructional situation.) Second, one-way instructional television produced the same amount of learning as face-to-face teaching.
by lecture, a combination of lecture-discussion-demonstration, or discussion alone. Third, instruction by either method yielded no significant differences when the studies were grouped by the broad subject-area headings of humanities, social sciences, and science-math. In attempting to explain the clear finding that two-way television was definitely inferior to face-to-face teaching (both using lecture methods), the authors conjectured that the requirement for students and lecturer to utilize the fairly complicated technical apparatus necessary for two-way communication may have been detrimental to the effectiveness of the medium.

Campeau also reported on findings by Chu and Schramm, who reviewed 207 studies using adult populations and reported a variety of inconclusive findings. Their findings indicated that

...instructional television was less effective at the college level than at the high school or grade school levels. At the college and adult level, results of 235 comparisons indicated that 176 found no significant difference between televised and conventional instruction, 29 favoured television over conventional instruction, and 30 comparisons were significant in the opposite direction. In those studies using adult participants, there seemed to be no conclusive or consistent evidence to suggest that the following variations would improve learning from television: physical variations such as size of screen, use of colour, camera angle; variations in viewing conditions pertaining to viewing angle and distance, home or school viewing, homogeneity or heterogeneity of viewing groups, permissive versus required viewing; pedagogical variations such as use of humour and animation, dramatic versus expository presentation, use of inserted questions; variations in student response mode; variations in student-teacher contact, such as two-way talk-back.
Campeau herself examined three experimental studies, one comparing televised and non-televised instruction, one comparing televised lectures with tape-recorded lectures and one investigating the contribution of colour to learning by television.\textsuperscript{54} In the study comparing televised and non-televised instruction a significant difference in performance was noted between those who viewed the television program and those who did not. The researchers indicated that the former group performed better than the latter. In the second study a significant difference in performance was noted between students who received lecture presentations on videotape and those who viewed live televised lectures. The same study indicated "no measurable difference in learning or information gain as a result of presentation device, size of screen, or student location in the auditorium".\textsuperscript{55} Students had viewed the programs on monitors with different sized screens. The third study Campeau examined concluded that colour played no significant part in the improvement of learning by television. Qualifying this finding the researchers noted that this conclusion might have resulted from the fact that learners viewing the black and white production were given verbal clues about the colours which might have been effective enough without actually showing the colours.

Campeau's review serves an important purpose in that it helps to point out the disagreement which exists in the research on instructional television. For every study which shows television
to be more effective than live instruction there is another which contradicts the findings. While television seems to be no more effective than live instruction it also appears to be no less effective. Possibly it is the focus of the research which has caused the confusion and not the design of the studies. Perhaps researchers in the area have chosen inappropriate ways of examining television in an attempt to attribute capabilities to the medium which it simply does not possess. Perhaps they have taken what is essentially a communication system and attempted to use it as a unique instructional technique.

Process Versus Content in Instructional Television

In almost all the comparative effectiveness studies cited, the main instructional technique used was the lecture, both live and televised. At its best the lecture is an instructional technique designed to disseminate information efficiently to large numbers of people. It is suitable for establishing interest in the learner and as a way of introducing learning tasks to be completed using other techniques. The lecture is appropriate for presenting material for short-term memory retention and its effectiveness depends to a great extent on the organization and presentation of the material. When used in the traditional instructional setting the lecture is by no means the only educational technique used. It is a one-way flow of information and therefore not the best technique for facilitating learning. By recording or broadcasting a lecture on television one simply extends the
efficiency of the technique without necessarily improving it. Television's unique properties which will be described later might very well improve the experience but none of the studies reviewed explored this facet in an appropriate way. Instead they compare the content of the experiences without examining the nature of the medium itself. The lecture becomes the content, standardized for purposes of the study and it would seem only reasonable to assume that its content would remain at least fundamentally the same no matter what the delivery system. This factor might account for the lack of conclusive evidence that TV is better than live lectures. It is significant also that the main concern in these studies was the acquisition of information. Tests compared the amount of information assimilated by the participants which seems to reflect more on the characteristics of the learners than on the effectiveness of the different media. For example, in studies which examined the effects of television viewing on long term and short term memory it was found that short term retention was not affected one way or the other when the medium was used to present factual information. Learners still demonstrated the normal phenomenon of forgetting. On the other hand, when material was presented which was designed to affect attitudes, retention was prolonged and opinions actually seemed to increase over time.\textsuperscript{57} It appears, then, that about the only thing which can be said in favour of TV as an information medium is that the nature of the medium
allows for maximum distribution and control of content to the degree that a taped lecture may be repeated over and over again to large numbers of people and still demonstrate absolute consistency in content. Still this approach does not examine the more important issue. Can television instruct? The fundamental error seems to be the assumption that television is effective in instruction when it is the only technique used. Similarly, it would be wrong to assume that a lecture by itself is appropriate as the sole means of instruction. A lecture is only part of a total instructional design which would include other techniques as well as continuous monitoring of the experience through "feedback" and the opportunity for evaluation to occur to measure the degree of learning which takes place.

Some ETV studies which have incorporated "feedback" systems showed a significant difference in learning although studies like Dubin's showed this type of design to be less effective than straight one-way systems. Dubin attributed his findings to problems connected with the complex technology involved in two-way television which in fact hindered participation and interaction between the learners and the instructor. This problem resulted from the characteristics of television and it is interesting to note that Dubin did not consider this problem in his research design. Instead he referred to it in the conclusions, his primary concern having been with the content.
of the television program.

This concern with examining the effectiveness of content in ETV programs is what seems to confuse the design and produce inconsistent and inconclusive results. Comparative effectiveness studies use the program's content as the one common factor in both designs and the procedure may be inappropriate. For example many studies use the lecture technique as the basis for evaluation. A live lecture is compared with a televised version and the lecture technique itself becomes in a way the content. A televised lecture does not really represent an appropriate use of the television medium. A live lecture is a technique which facilitates learning but when transferred to television, which possesses "techniques" of its own, the lecture becomes the content and it is possible that this creates a conflict between the two mediums which influences the effects of television. To compare a live lecture and a recorded lecture on television is like trying to compare techniques like the lecture and group discussion. Both serve a useful function when used in circumstances appropriate to each, but neither technique is better or worse than the other – only different. One might assume that this conflict would not hold true when comparing a lecture with a televised lecture except that while they are basically the same, television affords the opportunity, through the use of different shots, angles, and editing effects to manipulate and change the effect
of a lecture. The reason this change is not apparent might be
the result of an inappropriate system for measuring the effects.
For instance McKeachie in his research points out that achievement
tests used in most comparative effectiveness studies failed to
"measure the proficiency with which students [evaluated] visual
properties of the instructional content", certainly one of
the areas where a visual medium like television should be
effective. The lecture is primarily used as a technique
for disseminating information verbally and tests are designed
to evaluate only verbal content. In another study the researchers
implied that visual presentation of subject matter might make
the learning of concepts more efficient although there is no
evidence to suggest that they examined this aspect preferring
instead to concentrate on verbal information as the main vehicle
for instruction.

It is interesting to speculate why later studies
in ETV tended to concentrate so much on the acquisition of
verbal information when television would seem to be much
better suited for demonstrating processes. The role of the
medium as a process demonstrator was identified in early studies
conducted in agricultural extension, one field of study from
which adult education evolved. These studies showed that ETV
was an effective device for demonstrating procedures because
it could present tasks in an orderly and logical sequence.
It was able to illustrate detail in ways not possible using
other techniques and it was ideal for illustrating tasks involving motion.

Although many of these works took the form of case studies and testimonials which may not have exhibited the degree of scientific rigor expected by today's standards, at least researchers were able to identify some important properties of ETV which gave it the potential to contribute to the instructional process. For instance, some studies examined the novelty effect of the new medium and found it to be an effective device for capturing and holding a viewer's attention. It is important to note that even after TV became a common part of North American life it still retained this capacity to interest and motivate learners.

The extension studies also identified some other important properties of TV: specifically, its ability to present information to a wide variety of viewers and to reach audiences not readily accessible to institutional programs. Certain advantages and limitations of the medium were predicted which were later confirmed by more rigorous research. Most importantly, these studies predicted a role for TV as a "how-to-do-it" medium, a device to demonstrate and aid in the acquisition of development of skills.

Properties of Television

The research studies discussed so far have identified
certain peculiar properties of television which make it a useful device in an instructional setting. Edling has developed a conceptual scheme which classifies and describes what he sees as three basic properties of media: fixative, distributive, and manipulative. He describes the fixative property of media as that which:

...enables us to capture, preserve, and reconstitute an event. It is no longer ephemeral. It can be "consumed" without being "used up". In effect, this property permits us to transport an event through time.

The capacity to store and repeatedly recall information with absolute accuracy is a significant property of television as well as many other media.

Edling draws a distinction between the fixative property of media which allows for the transportation of information through time and the distributive property which allows for the transportation of information through space "simultaneously presenting each of the potentially millions of viewers with a virtually identical experience of an event". The fixative and distributive properties of a medium like television are similar and obvious to the degree that they are mechanical characteristics of the medium. They both can play an important part in the process of presenting instruction but, in themselves, are not really instructional processes. It is in the manipulative property where television begins to function in an instructional capacity as outlined by theoreticians like Gagne. Edling
defines the manipulative property of media as that which:

...enables us to transform an event in any number of ways. An event may be speeded up, slowed down, stopped, or reversed, scope may be made broad or narrow. It may be edited, resequenced, interspersed or shown simultaneously with another.

It is within the manipulative property that the structure and processes of the television medium itself contribute to the instructional process.

**Fixative and distributive properties of television.** By and large adult educators have identified the fixative and distributive properties of television as the factors which most affect the role of television in instruction. Distribution is a relatively important factor, but to be able to screen a lecture to 10,000 people simultaneously is, in itself, not enough grounds to defend television as instructional. After all, distribution is basically only a mechanical process. It becomes a significant characteristic when it is used as a way for organizing adults to learn, in which case distribution then becomes an important part of an educational system. Broadcast television can organize people because it operates under rigid schedules, although this factor is often cited as a deterrent because prospective participants are unable to schedule their time to coincide with the broadcasts. Television can also reach people not normally available, people who live great distances from centres providing educational programs and
people who do not normally participate in adult programs. With the former group, television might act as one of the few contacts they have with an educational institution. With the latter group television fulfills another important function. It allows non-participants the opportunity to observe one part of the educational process and in so doing encourages them to become active participants.

Another property which makes television a useful device is its capacity to record and store events and information with a fairly high degree of accuracy. Viewers accept the information presented on television as representing the truth or reality. The whole question of the credibility of information presented on television is in many ways debatable. Still there are surveys which have shown that viewers accept this kind of accuracy from the medium. It is likely though that television is as incapable as any other mass medium of presenting objective, truthful information. So many factors affect the production, transmission, reception and interpretation of information over television that it would be dangerous to assume that the content of television is absolutely accurate. One point which can be made for television, however, is that it is able to present information instantly and exactly the way it was recorded.

Manipulative properties of television. It is the manipulative property of television which provides the opportunity for the medium to affect the instructional process, but a
further distinction must be made within this category before an analysis can be made. Edling uses the term to describe the process of slowing down the content, stopping it, speeding it up, reversing it, or showing it simultaneously with another production. What he seems to be describing here is external manipulation at the presentation stage. These techniques may also be designed into a production, but the implication in Edling's scheme is that these processes occur during presentation. At the same time Edling describes manipulative properties which include editing, resequencing and interspersing content within a production. In this instance he seems to be describing the kind of internal manipulation which occurs during the production stage, during the creation of the program itself.

Both of these forms of manipulation can modify the instructional effect of a television program. Internal manipulation affects the design and construction of the program while external manipulation affects the use of the program during an instructional event. The former process is finite in the sense that once the production is complete there is really no more internal manipulation unless the production is physically changed or revised. The variety and amount of external manipulation which can occur at the presentation stage, however, is infinite and can change the very character of the original production depending on how it is used within an instructional setting.
**External manipulation.** Some research has already been reported in this study which describes the effects certain types of external manipulation have on the instructional effectiveness of television. Studies reported by Campeau, Travers, Chu and Schramm have established that certain presentation factors affect or do not affect instruction by television. For example, screen size, changes in viewing angle, changes in viewing distance, and clarity of the image, were factors which could not be shown to affect the quality or amount of learning on television. Other factors which could fall into the category of external manipulation include slowing down or speeding up the image at the presentation stage.

**Internal manipulation.** Factors which fall under the category of internal manipulation include such things as the use of colour, the use of a dramatic versus expository style in the production, and the insertion of humour or animation techniques to "liven up" the program. Travers and Campeau point out that these factors cannot be shown to affect significantly the quality or quantity of learning which takes place in instructional television programs.

It would seem that the most logical way to approach the instructional effectiveness of television would be to examine its internal structure to see how the medium itself communicates. The process would involve the development of a visual language which could explain the effects of the various techniques used
in television. The approach is fraught with danger and apart from a few courageous attempts by scholars like Peters, Slade and McLuhan little has been done by communication researchers and virtually none by adult educators. In fact, the proposition that a visual language does exist and that it affects the communication of information or concepts via television or film is viewed with much skepticism. The subject is raised here not for purposes of drawing any conclusions but simply to raise some issues and outline some approaches which may prove worthy of research by adult educators.

Before discussing any issues surrounding whether or not a visual language exists in film and television it would seem appropriate to examine what linguists say about the nature and structure of language and how communication systems function which are founded on visual elements. It is only recently that script has been re-discovered by linguists as a "legitimate mode of communicating language". Most research has concentrated on the spoken word while script was largely "excommunicated...as nonlanguage". Linguists' concentration on the spoken word has been grounded in the belief that a language remains alive and develops only in its verbal form which is its everyday use, but may stagnate in its written form. As Martin points out:

...every writing system is in some way defective even when first instituted, and the institutionalization itself prevents the continuous revision that
would keep the conventions of writing as well matched to the continuously changing spoken language...

Linguistics, then, involves the study of two distinct communication processes: spoken language and written language. Written languages, in turn, are generally subdivided into alphabetic and non-alphabetic systems. Alphabetic languages, like English, are written using symbols which represent sounds while non-alphabetic systems like Chinese use symbols which represent visual images. These symbols are called "characters" and are pictorial representations of real visual images even though they have evolved over time into highly stylized symbols. Linguists like Martin list six categories of characters, three of which are directly relevant to this discussion. The basic units of a visual language like Chinese are pictographs which:

...are direct iconic representations, such as those that depict the sun, the moon, a tree, a mouth, a mountain, a well, a bow, a stream, a gate, a shell, etc. Most characters have become highly stylized with the passage of time so that the original picture is not always obvious at first glance.

Pictographs represent tangible things, but lack the versatility and richness to embody concepts. Once conceptualizing becomes an important factor in developing a communication system, pictographs, by themselves, are incapable of handling the degree of sophistication required. To solve this problem the Chinese developed ideographs. There are two types of ideographs: simple
Simple ideographs depict a logical idea: three horizontal lines to represent the number three, a pointer above or below the line to signal the words for up and down....

Compound ideographs represent an abstract idea by combining simple graphs, as when MOON is put to the right of SUN to represent the word for 'bright'. Two TREES are put together to represent the word for 'grove'; three are combined to represent the word for 'forest'.

Ideographs maintain their identity as a visual language, but extend the possibility for more complex levels of communication.

To translate this process of evolution into a visual language for film, the noted Russian film theorist Sergei Eisenstein drew direct parallels between the structure of the Chinese ideograph and what he saw as the visual language of film. To Eisenstein, the simple act of recording an image on film produced what amounted to a kinetic pictograph, capable of communicating simple "picturable" things and ideas. When these shots were edited together, a process which he called "montage", the result was a kinetic ideograph, a new image capable of communicating more than the sum total of the original images. He described the cinematic process as that of:

...combining shots that are depictive, single in meaning, neutral in content - into intellectual contexts and series.

To carry the analogy further, Eisenstein postulated that when these montage sequences were combined to form an entire film
the result was a series of kinetic ideographs which in turn
combined to depict an even higher level of meaning.\(^86\) The
proposition that a visual language exists in film and related
media is generally accepted by those working in the media, but
scholars in the social sciences are not inclined to accept
the idea.

Travers, one of the most highly respected scholars
in the field of instructional media, rejects the idea of the
existence of a visual language:\(^87\)

> The comparisons of pictorial material with
language is, at the best, a weak analogy.
True, pictorial sequences have been used
since the earliest civilizations for the
transmission of stories, but pictorial
material generally lacks the structure
which is typical of language. There is
no syntax of pictorial representation;
at the best, a series of pictures which
tell a story represent events in a sequence
and the pictures are organized in a time
structure. If pictorial material constitutes
a language at all, it is only at a very
primitive level.

Other theorists like Worth tend to support Traver's
feelings except that Worth makes a fine, but important,
distinction to further clarify the issue.\(^88\) While Travers
appears to be talking about the question of structure in
pictorial sequences made up of static visuals, Worth makes
the point that when motion is introduced, a significant
change occurs in the characteristics and the quality of
communication. Film and television, as kinetic mediums,
exert an influence over the viewer which is affected by
time and space. To Worth, a visual "language" exists to a
degree in film because of its ability to transmit meaning
through symbols presented in sequence and linked by motion.
Like Travers, he questions the efficacy of characterizing
the level of communication as language, but concedes that the
term "language" is in part useful to a discussion of film's
ability to communicate using a systematic set of symbols. Worth,
however, prefers the term "semiotic" to describe filmic structure
because "language" connotes a range of functions which he feels
go beyond the capabilities of film.

Travers summarizes his position on visual language by
saying that the issue "is an interesting question which needs
to be explored systematically, rather than speculatively". 89
Travers' choice of the term "speculative" stems from his choice
of source material in his discussion. He quotes exclusively
from a work by J.M.L. Peters who, in 1961, wrote a book on
Teaching About the Film which concerned itself primarily with
the examination of film "aesthetics", a term which Travers
dislikes, with good reason. 90 As Peters uses the term it
refers to the study of film as an art form and the examination
of visual language in film as an exercise in criticism rather
than as part of the communication process in an instructional
device. There are then two approaches to the study of visual
language: one is to approach the subject from the point of
view of an artistic experience and the other approach is to examine the process as one component in a communication system which may or may not affect instruction. The problem is that most attempts to define visual language have been made by people interested in applying the information to the study of film and television as an artistic or social experience instead of an instructional process. The exercise has been for the most part subjective and the results speculative.

The purpose of this discussion is to explore the issue of visual language and identify aspects of the proposition which could have important implications for instructional television. As Gagne has pointed out communication is a necessary first step in the process of instruction. Studies in television reviewed so far have adopted an approach that television might, or should, communicate information or concepts better than, or equally as well as, any other instructional process. To communicate presupposes the existence of some form of language either independent of or supplementary to traditional communication systems. If there is a unique visual language then the implications for its use in instructional television are profound. If the language is only fulfilling a supplementary role to traditional communication processes then the implication could still be significant, because communication is a key factor in the instructional process.

One problem with conducting any systematic study into visual language is that there appears to be a lack of
consensus among researchers and practitioners over the interpretation of visual symbols. Travers, for example, contends that producers, directors and educators may recognize the symbols but cannot agree on their meaning. The point may not be entirely correct. Practitioners have developed quite standard definitions for visual techniques used in television and film. For example there are three basic shots used in television, the long shot, the medium shot and the closeup. Each shot is used not only to communicate subject matter but also to comment on the material. The long shot is normally used to establish a scene, to set the mood, or to establish a sense of perspective. The medium shot is most often used in television because of restrictions of size. Its function lies between the environmental effect of the long shot and the intimate effect of the closeup. In television a medium shot normally includes two people and is often referred to as a "two-shot". The closeup shot concentrates the viewer's interest on a subject and can be an extremely powerful shot.

Besides the three basic static shots there are also a variety of shots involving motion. A trucking shot involves physically moving the camera right or left keeping parallel to the subject or action. A dolly shot involves physical movement towards or away from a subject. A zoom shot resembles a dolly shot except that outward and inward motion is controlled through the lens and not by physically moving the camera. A
pan shot resembles a dolly shot to some degree except that the camera only turns to follow an action rather than physically moving along with it. The final most common shot involving motion is the tilt where the camera moves upwards or downwards.

Various camera angles are also important to the visual language. In a high angle shot the camera is positioned up in the air looking down on a subject. It is often called a dominant shot because it creates a feeling of dominance and power from the viewer's point of view. In low angle shots the positions are reversed with the camera looking upwards at a subject. It creates the feeling that the object or person in the frame is dominant but the viewer is submissive. In a canted shot the camera is tilted at unusual sideways angles making the subject appear off balance. Canted shots are used to suggest instability, uncertainty or abnormality. The position of the camera can affect the mood of any scene. In objective shots the camera and the viewer are placed in the position of passive observers watching the action occurring in front of them. For example this type of shot is most common in the tele-lecture technique where the subject stands or sits facing the camera and the viewer observes the activity as if he were sitting in the audience. Use of the subjective shot involves using the camera and the viewer as part of the subject or action within the scene. Documentaries often incorporate this type of shot by using a hand held camera which moves with the cameraman
creating the sense that the camera itself is a person involved in the action.

There are a variety of techniques used to provide transitions from shot to shot or scene to scene. The most common technique is the cut or edit, executed on film by physically splicing together different shots while in television, cutting is purely an electronic process. A dissolve is another common technique for change where one scene or shot appears to melt or dissolve into another. In a wipe one shot appears to push or wipe the other shot out of the frame. Still other examples include the fade in and fade out, techniques commonly used for opening and closing scenes where the scene begins as black and the picture fades into view or, in reverse, as the scene ends the picture fades into blackness. Titles may also be used to provide transition although their use in film all but ended with the advent of sound.

Finally there are a variety of special effects available in film and television which serve to suggest the transmission shots. These effects include such things as keys, travelling mats and corner inserts. When parts of one picture are added to parts of another to make a new whole, the effect is termed a key. The process is difficult to accomplish in film requiring a complex processing system, but in television, an electronic medium, the process is quite simple and can be produced instantly. The travelling mat effect is an old film technique which has
recently been revived in multi-image or multi-screen films. The effect is used to present more than one image at a time on the screen and the images move and change creating an added dimension of motion. Corner inserts involve superimposing smaller images in the corners of the screen and also serve to add another dimension to the visual image.

Together, these various shots and effects make up a basic structural form in television and film which, in some ways, resembles a visual "grammar". Worth, for example, classifies these basic techniques into two distinct, but interrelated forms: cademes and edemes. Cademes are the basic unit of film "which results from the continuous action of the movie camera resulting from the moment we press the start button of the camera to when we release it". An edeme is "the editing shot.../or/...that part of the cademe which is actually used in the film". Together, the cademe, or original shot, plus the edeme, or edited version combine to form the videme, the complete sequence or scene. It is interesting to note that the terms coined by Worth to describe these units sound very much like linguistic terms, a coincidence which Worth himself admits was calculated to imply an analogy between the medium and language.

To use another analogy which is, perhaps, less "jargonized" than Worth's description, the individual shots may be said to represent pictographs and, when combined, or edited together, form ideographs which communicate more than the total of the
original parts. Each element affects how the program's content is communicated, and like any other form of systematic communication, these forms can be abused or misunderstood. There has never really been a determined effort to examine the influence which these visual elements have over the communication process. Early film theoreticians like Eisenstein and Pudovkin were fascinated with the way in which film communicated. Pudovkin for instance found that by randomly editing shots of various scenes and activities into a reel of film and juxtaposing them against a constant shot of an actor's face staring blankly ahead, he could create stories where none consciously existed. Students viewing his film created their own story line and attributed emotions to the actor which in reality did not exist. The most startling aspect to Pudovkin's experiment was not simply the fact that viewers created a story in their own mind but that there was a high degree of consistency of interpretations among the viewers.

Eisenstein wrote many treatises on film and almost all approached the medium from the standpoint of its ability to communicate concepts, ideas, and information visually. He too was concerned with examining how film techniques could be used to create a visual language based on a common frame of reference. Another theoretician, Raymond Spottiswoode, wrote a book entitled *The Grammar of the Film* in which he too tried to identify common communication symbols which could be used
in visual media like film. It is possible that a visual language exists which communicates to people on a common level of perception regardless of what the content may be.

Some linguists make the point that one of the great advantages to a visual language is its universality. While individuals may speak in quite different dialects they are still able to communicate through a common written language. The proposition that mediums like television and film possess these qualities of universality is not without its critics. Chu and Schramm report studies in film which have shown the content to be culture bound under certain circumstances. They report on studies by Holmberg, Court, Marsh, Winter and Spurr which show that visual media, used in cultures unfamiliar with the language of film, failed to communicate. Of this group of studies Chu and Schramm report in some detail on one by Holmberg. He found that when he screened a film on personal hygiene to a group of Peruvian villagers the experience was unsuccessful because they were unable to relate to the content. There were, for example, various enlarged closeup shots of body lice which the villagers interpreted as pictures of an entirely different species. Their perception of the image appeared to be culture bound. The closeup shots made the lice seem unreal even though the lice themselves were part of the audience's experience. Holmberg concluded that those unfamiliar with film need some degree of instruction in its language.
In another study Morton-Williams observed the same type of perceptual problem showing films to a group of Nigerians although he reported that with very little instruction the people learned to understand the film. These studies indicate the possibility of two factors at work which can affect a film's potential for communication. First, the content or subject matter of a film may be unintelligible if it is outside of the viewer's experience. In this sense the content of visual media may be culture bound. Secondly, the method of presenting the information may affect the viewer's comprehension. If the viewer is confronted with images which are within his experience he may still be unable to recognize or understand them if those images are presented in an unusual way. In other words, if the viewer is unfamiliar with the language of the medium he will be unable to perceive the content. Once a viewer can understand the language of film he can begin to deal with the content.

It is worth noting that most empirical studies on television's effectiveness in instruction have not considered the possibility that a visual language might exist. Instead most studies evaluated only the content of the programs which was primarily verbal transmission of information. Visual content played only a secondary role where it was used as illustrative material to supplement the verbal content. The very choice of the tele-lecture technique indicates this bias. A few researchers like McKeachie comment on the possible
implications for using the visual media to transmit conceptual material, but by and large instructional programs seem to have been designed around a formula where one communication system has been superimposed upon another. The point of comparison then has been the content and not the process which should have been examined. Indeed it would seem inappropriate to compare live lectures and televised lectures at all. To compare the two is like comparing apples to oranges: they are two different articles altogether and neither may be more or less effective than the other. It would seem more appropriate to approach the study of visual media like television by first examining the nature of the medium itself. If it is possible to discover how it communicates then it might be possible to manipulate its structure to produce measurable effects. Once we have a clear understanding of how it communicates it might be possible to set criteria to describe in what areas of instruction television could be best used. At the very least these kinds of studies will help to reinforce Gagne's theories of the important role which visual media can play in the first three phases of learning.
FOOTNOTES


3. Ibid., p. 3.


5. Gagne, op. cit., pp. 29-43.

6. Ibid., p. 29.

7. Ibid.

8. Ibid., p. 31.

9. Ibid., p. 32.

10. Ibid., p. 33.

11. Ibid., pp. 33-34.

12. Ibid., p. 34.

13. Ibid.

14. Ibid.

15. Ibid., p. 36.

16. Ibid., p. 37. For further discussion see also:


19. Ibid., p. 38.

20. Ibid.

22. Ibid.
23. Ibid., p. 43.
24. Ibid.
25. Ibid., pp. 36-38.
26. Ibid., p. 31.
27. Ibid., p. 116.
28. Ibid., p. 117.
29. Ibid., pp. 141-143.
30. Ibid., p. 141.


33. Gagne, op. cit., p. 141.
   It should be noted that Gagne restricts his discussion to television even though similar characteristics might be attributed to film which is also a kinetic visual medium. This study will include material on film based on the assumption that both mediums function in much the same way. For more discussion see footnote 84.

34. Ibid., p. 142.
35. Ibid.
36. Ibid.
37. See Chapter II, Definition for Educational Television.


40. Ibid., p. 100.


42. Ibid.

43. Ibid.

44. Lumsdaine, op. cit., p. 604.


46. Lumsdaine, op. cit., p. 635.


52. Campeau, op. cit., p. 20.

53. Ibid., p. 21.

54. Ibid., pp. 22-25.


Charlene D. Kirschner, Joseph L. Mapes and Ray L. Anderton, 
Stanford, California: ERIC Clearinghouse on Information 
Resources, Stanford Centre for Research and Development in 
Teaching, School of Education, Stanford University, 1975.


60. Ibid., p. 23.

61. Educational Television Research Findings, Extension Service 
Circular No. 514, U.S. Department of Agriculture, November, 
1957.

62. Ibid. 
"Creative TV Farm Shows, experts reveal how agriculture 
television can capture viewers", National Project in Agriculture 
Communications, Michigan State University, 1956.


64. Effectiveness of Television in Teaching Sewing Practices, 
U.S. Department of Agriculture Extension Service Circular 466, 
1951.

65. Meredith C. Wilson and Gladys Gallup, Extension Teaching Methods: 
and other factors that influence adoption of agricultural and 
home economics practices, Federal Extension Service, U.S. 
Department of Agriculture, Extension Service Circular 495, 
1955.


67. Ibid.

68. Ibid.

69. Chu and Schramm, op. cit., p. 100.

Ohliger, op. cit., p. 38.

70. It should be noted that use of the term "accuracy" here does 
not imply an accurate interpretation of events which make 
up the content, but means instead technical accuracy in 
recording the event. The distinction is important because 
many factors can affect the accuracy of the content. Pictures 
do not necessarily record the "truth".

72. Edling, op. cit.

73. Lumsdaine, op. cit., p. 604 identifies these conditions as experimental factors called "media variables" and "utilization variables". "Media variables" is another way of saying internal manipulation and "utilization variables" describe the process of external manipulation.

74. Campeau, op. cit.

Travers, op. cit.


75. Ibid.

76. Campeau, op. cit.

Travers, op. cit.


78. See Travers, op. cit., p. 204.


80. Ibid.


82. Ibid., pp. 83-84.

83. Ibid.

To draw from film theory for supportive evidence in a study about television might be grounds for criticism from those who believe the mediums to be inherently different. We refer here to McLuhan's distinction between "cool" and "hot" as descriptors for television and film. McLuhan uses the terms to describe the relative difference between TV and film as primary and secondary media for communication. TV is a primary source of information which people accept as part of their everyday life. Its pervasive quality, then, makes it a "cool" medium. Film, on the other hand, no longer enjoys the position of being a primary source of information and influence. McLuhan contends it is an art form which people go to see voluntarily to participate in an emotional experience. The content of films are not always accepted as reality in the same way as television. Film, then, is regarded as a "hot" medium. For purposes of this study, we will assume that given the relative difference in social importance and the technical differences which exist between the two mediums, they communicate in essentially similar ways and use basically the same techniques to convey their message. They are, after all, both moving pictures.

85. Ibid., p. 30.

86. Ibid.

87. Travers, op. cit.


89. Travers, op. cit., p. 2.04.

90. Ibid., p. 1.10.

91. Peters, op. cit.

92. Gagne, op. cit.

93. Ibid.


96. These shots may be modified to form various combinations: an Extreme Long Shot (ELS), Medium Long Shot (MLS), Medium Closeup (MCU), and Extreme Closeup (ECU). The terms are relative, depending on the discretion of the director and the limitations imposed by subject matter and size and format of the medium used.

97. Millerson, op. cit.

98. Worth, op. cit., pp. 299-300.


103. Chu and Schramm, op. cit., pp. 75-77.


106. Campeau, op. cit., p. 22.
This chapter is included to review and analyse some television programs for adults in light of the definitions created in Chapter II and concepts discussed in Chapter III. Examples are drawn from a variety of sources but no attempt has been made to list all programs. So many valuable innovations in television have been made over the years that it would be impossible to list them all here. Instead, a representative sample of educational and educative programs has been selected for examination. Although the examples are drawn from various sources the main concern in this review is with Canadian programs, not with any intention to be parochial, but because Canadian
attempts at ETV are not as widely known as some others. Scholars like Rosen and Thomas have made significant contributions to the literature with their attempts to document Canadian experiments in ETV, but on the whole, ETV in Canada has maintained a relatively low profile.¹

The data have been searched for examples of television as an educational method, an educational device, and an educative device. The examples have some historical significance insofar as they demonstrate some of the trends which have occurred in educational broadcasting over the past few decades. Information has been drawn from available sources which might be subject to misinterpretation or incompleteness and therefore must be judged accordingly. Nonetheless, these examples do demonstrate the general approaches taken by adult educators and certain key institutions.

**ETV as a Method**

No examples could be found from the field of practice which would meet the criteria for educational television as a method. Many come close, particularly those projects discussed later in this chapter which were undertaken by the CBC and various universities. These kinds of projects went so far as to use television as the primary system for organizing the learners but none could fulfill the criterion of providing continuous contact between the agent and the learner. Some
provide for limited interaction in the form of seminars, discussion groups or personal meetings held after the groups viewed the television programs. This level of interaction would likely facilitate learning, but still could not equal the level which can be attained in an adult education method like, for example, the class where there is personal, direct, and continuous management of the instructional event.

Even though there are no examples of ETV as a method to be found in the field, there are examples to be found which have been created by educational researchers examining the potential use for television in the formal instructional setting. In an earlier chapter reference was made to a study by Dubin which examined the use of two-way communication systems in live television productions. Here the technology was used as a way of organizing the learners and continuous monitoring of the experience was achieved through the use of a "talkback" system where learners could communicate directly with the instructor. Other examples of ETV which include various forms of two-way communication can be found in the work of Bretz, Wolgamuth, Johnson, and an earlier study by the Southwestern Signal Corps Training Center. In these studies the instructors delivered their lectures to a group of learners via television. With a two-way audio hook-up the learners were able to ask questions and seek clarification from the instructor during the course of the lectures. Television was the primary source of organization
for the experience and was used in such a way that interaction could occur which would affect the management of instruction. Television, then, was used as a method of adult education although, as previously noted, experiences like these represent an unusual use of the medium. 4

A contemporary Canadian example of an experiment in the use of ETV as a method can be found in the HERMES project sponsored by the federal Department of Communications. 5 HERMES is an acronym used to describe a new generation of geosynchronous communications satellite currently in use in North America. The satellite has been used by the U.S. and Canada for a variety of purposes and recently has been made available for experiments in educational broadcasting. To date ten projects have been planned, eight of which are currently underway, on a variety of subjects ranging from communication links with isolated areas to inservice professional development programs for health science personnel and teachers. The satellite provides the technical facilities for two-way visual and sound communication between any number of locations anywhere on the continent. Most experiments to date have been sponsored by universities and government agencies which have used the system as a way to present recorded and live instructional programs to various groups outside the range of existing programs. The satellite's biggest advantage lies in its ability to provide opportunities for live interaction between instructors and learners using TV as the main system
to organize the learners. Experimental projects like HERMES demonstrate the potential for ETV as a method of adult education, but still its use is limited by the expense involved in using such sophisticated technology.

ETV as a Device

Normally ETV is used as a source of information or a way to extend an educational experience. Many examples exist in broadcast television which demonstrate these characteristics and among the contributors is the Canadian Broadcasting Corporation.

CBC television. The Canadian Broadcasting Corporation has had strong historic ties with adult education organizations. In co-operation with the Canadian Association for Adult Education the CBC produced the Farm Radio Forum and the Citizen's Forum both influential programs for mass adult education in Canada. The CBC's commitment to education at both the pre-adult and adult levels has been limited to some extent by constitutional constraints. Traditionally, education in Canada has been the sole responsibility of the provinces, a right protected by the British North America Act. The division of responsibility has made it difficult for the Federal government or its agencies to pursue any kind of national education policy except in specific areas like vocational and technical education.

As a Crown Corporation CBC has never been able to initiate mass adult education programs although it has co-sponsored specific kinds of projects like the Farm Forum with other organizations like
the C.A.A.E. Another factor which has affected the role of the CBC in adult education programs has been the constraints imposed on the Corporation by its mandate to provide a variety of services to the Canadian public. Its primary responsibility has been to inform and entertain the Canadian public. While education forms a part of this responsibility it is not the Corporation's primary objective. It is one of those institutions which adult educators like Schroeder have identified as a Type III agency: that is an institution which uses adult education as "an allied function...to fulfill only some of the needs which [it recognizes] as [its] responsibility". Consequently its participation in adult education activities has been marginal.

It seems a characteristic of Canadian Federal government agencies that their terms of reference are very broad. For instance, in the 1967 Broadcasting Act the CBC is charged with the responsibility of providing:

...a balanced service of information, enlightenment and entertainment for people of different ages, interests and tastes covering the whole range of programming in fair proportion....

It is further directed to:

...contribute to the development of national unity and provide for a continuing expression of Canadian identity....

These terms of reference are, obviously, quite general and allow for many different interpretations. The CBC mandate
closely resembles that of other agencies like the National Film Board whose primary role is to:  

...interpret Canada to Canadians and to the rest of the world.

The general nature of these edicts likely results from two major factors: constitutional constraints imposed by the peculiar structure of Canadian federalism and administrative constraints imposed by the size of the organizations and the necessity for them to try to be 'all things to all people'. Farris, for instance, has made the point that once institutions reach an optimum size their priorities must be compromised to some degree as they attempt to fulfill a number of roles at once. Even a cursory examination of the broadcasting acts and commissions reveals this trend. The 1929 Aird Commission outlined a number of responsibilities for broadcasting and with each successive act the number and variety of responsibilities increased.

The Fowler Commission, in 1957, identified four major responsibilities for the CBC:

...first, to inform (news, public events, the reporting of facts); secondly to enlighten (interpretation of news, education, discussion, debate on the facts); thirdly to entertain (enjoyment, relaxation); and fourthly to sell goods (advertising, distribution of goods and services)...

Education was recognized as only one part of the four subsections called enlightenment. In the 1967 Act, the reference to CBC's role in education formed one of fourteen statements describing
areas of responsibility. Section 2(i) of the act states that "facilities should be provided within the Canadian Broadcasting system for education broadcasting...". The statement is interesting not for what it says, but for what it does not say. There is no indication that CBC's commitment to ETV should extend beyond the provision of the mechanical wherewithal to facilitate the production and distribution of ETV programs. There seems to be no implication that the CBC should take any part in initiating programs. It should, instead, provide technical expertise and assist others.

It should also be noted here that government policy towards educational television contains some ambiguity over the nature of the audience to be served. For the most part CBC educational television has been directed towards children. The reasons appear obvious: children are readily accessible in schools, the content is easy to control because it is consistent with a set curriculum, and the effects are relatively easy to measure. CBC policy towards "school broadcasting" has been fairly clearly defined. As early as 1952 the CBC supervisor of School Broadcasts outlined the corporation's role as being one:

(a) To assist Departments of Education wishing to provide educational broadcasts to schools on a provincial or regional basis.

(b) To supplement such provincial or regional schemes of school broadcasting by providing, on the national network, school broadcasts designed to strengthen national unity and increase Canadian consciousness among students; also school broadcasts dealing with subjects that are of common interest to the schools of all provinces.
Here again CBC's role is perceived as one of an advisor, assisting educational agencies to produce and distribute their own educational programming.

The Corporation's role in adult education is, on the other hand, not so clear. The report of the 1965 Committee on Broadcasting describes education as made up of "four distinct but overlapping elements":\(^{19}\)

1. **Scholastic Education** - formal school and university programs - both for children and adults
2. **Vocational Training** - directed towards adolescents and adults
3. **Special Enlightenment** - for people of all ages...to popularize and develop skills in or knowledge of specific arts, crafts, hobbies and sciences
4. **General Enlightenment** - humanities, broad improvement of the mind

These categories imply a clear understanding of subject areas in which CBC television can play a role but the division between a concern with adults and children seems unclear. In fact, at one point the committee recognizes its lack of specific policy towards adult education, but rationalizes its uncertainty by stating that "the omission of 'adult education' from this list should not be taken to mean that we are not mindful of its importance, for adult education clearly covers the whole spectrum".\(^{20}\)

It can be seen that the CBC's natural reticence to involve itself actively in educational pursuits or to act
as a leader in developing educational television stems largely from constitutional constraints placed upon it by virtue of its position as an agency of the federal government "discharging a national function". It recognizes that it is not an educational body and:

...decided that it would not provide any [educational] broadcasts, except in partnership with the constitutionally accredited education authorities.

While the CBC has not been involved in many ETV experiments for adults, it has made some significant contributions by lending its expertise to the production of programs and providing a distribution system to deliver them to adults in the community.

CBC programs. In April of 1961, the CBC Audience Research Division released the results of a study on ETV which demonstrates its use as an extension device. The project was co-sponsored with the Department of Slavonic Studies at the University of Toronto which designed a language course called Beginning Russian. The course consisted of 48 half-hour "television lessons" broadcast over CBLT the local CBC station. It was designed for undergraduate arts students enrolled at the University of Toronto, but members of the general public were also invited to participate. The course followed a fairly traditional pattern with television acting as the main vehicle for disseminating information.
In addition to watching the televised lectures participants were expected to attend regular tutorial sessions designed to provide opportunities for both agent and learner to interact directly. Participants were also required to submit weekly exercises, undertake reading assignments and write examinations. It was, in other words, a modified correspondence study program. Each student was supplied with a special television study guide, a Russian grammar text and a workbook. The goal of the program was to provide "an opportunity for individuals with no previous knowledge of Russian to take the first step towards understanding the language, as well as reading, writing and speaking it". The television program itself was used as a source of information and a device to extend the experience to as diverse an audience as possible. It should be noted that an attempt was made to use the programs for something more than an information device. During the course of each television program:

...viewers were invited by the instructors to repeat Russian words and phrases out loud. Furthermore, written tests were dictated now and then to let viewers gauge their own progress.

In other words, some attempt was made to at least give an illusion of contact between the agent and learners. Without the possibility of any direct contact however, the attempt to replicate a method of adult education could not be successful. The best that could be achieved was a form of vicarious
contact which certainly could not be real or continuous.

An analysis of this program by the CBC produced some results which have interesting implications for using television as an information or extension device in adult education programs. Participation in the program raised some interesting questions both from the standpoint of the numbers of participants and their characteristics. From the CBC data it is unclear as to the actual number of participants in the program. It was ostensibly designed for undergraduate arts students and it appears that there were between 135 and 200 students registered in the program. To estimate the number of participants from outside the program, the CBC used an audience projection formula which placed the number of viewers anywhere from 1100 to 4000. Their research indicated a startling dropout rate among the volunteer viewers: more than half the original audience dropped out by the midpoint in the course. A profile of the regular audience indicated that the majority were adults: only 7 per cent of regular followers were persons under the age of 20. The median age was 37 years, and 60 per cent were between the ages 30 and 49. Most regular viewers held full-time jobs, and the largest single occupational group in the audience (35 per cent) were persons in managerial and professional occupations. Over half the regular viewers had already taken university courses, and 40 per cent were university graduates.

These findings tend to complement those of other researchers who have examined the characteristics of ETV viewers and found
them often to be people who really do not need its offerings but who were inclined towards educational experiences which they perceived as high status experiences. Those who dropped out of the series or were not regular viewers were profiled by the CBC in the following way:

[They were] (a) younger persons and single persons; (b) housewives, students and persons in the 'white collar' and 'manual' occupations; (c) persons who have never attended university; and (d) persons who could not speak a language other than English.

Another important factor which affected participation was the viewers' motivation to join the program. Those who enrolled for purposes of "general intellectual curiosity" were less likely to remain in the program than those who enrolled because they could see a specific use for the language in their everyday lives. Those who intended to use the language to communicate with family or friends were likely to remain loyal in the course to the end.

Another experiment in using ETV for language instruction was undertaken in 1961. The program was called Let's Speak English and was designed to provide remedial instruction in English for immigrant groups living in and around the metropolitan Toronto area. The program was co-sponsored by the CBC and M.E.T.A., the Metropolitan Educational Television Authority, a consortium of educational organizations in Toronto. The program began in October of 1961 and continued for a total of 78 sessions spaced over
a 26 week period ending in April of 1962. Two half-hour sessions per week were held on Saturdays and Sundays supplemented by a review program each Wednesday morning. The television programs were produced and broadcast by the local CBC station CBLT using CBC technical facilities to produce the shows and adult educators to design and appear on the programs.

The programs were based on a series of English language textbooks incorporating a "mimicry-memory" technique for instructing which required learner participation in repeating common phrases and sentences supplied by the instructors. The textbook was called *Let's Speak English* from which the television series' name was adopted. The television programs were structured to provide information and to simulate a classroom experience. Three instructors participated, one as the central instructor appearing in most of the programs with the other two involved from time to time in presenting certain specific kinds of exercises. Six different kinds of activities were used to facilitate instruction:

- **The exercises in vocabulary**: in which the meaning of words was taught without translation into other languages.
- **The pronunciation drills**: in which the sound of English phrases and sentences was taught.
- **Phrases for conversation**: involving instruction in the use of English idiom in everyday conversation, conveyed in the form of dramatic episodes or skits.
Drills in grammar: showing the way English sentences are put together or, in more linguistic terms, demonstrating the structure of the English language.

The presentation of pictures: i.e. the use of visual aids to show the meaning of words and sentences, and to convey complex linguistic meanings without translation.

The use of cards: a further set of visual aids to demonstrate English accentuation and intonation.

This series of programs differed from the Russian language series insofar as the television programs represented the only instructional experience. No regular opportunities were provided for participants to meet with each other or with the instructors. In fact, there seems to have been no monitoring of the learning experience. It was strictly a one-way flow of information and experience. This weakness in the program was reflected in the audience research findings which sought to examine the characteristics of the viewers.

The target audience for the series was defined as "...that section of the total population aged 17 years or over, living in metropolitan Toronto, whose usual language of conversation at home was not English but some other language". According to the survey, demographic statistics placed the number of adults in this category at about 141,000 representing some 30 different language groups. The TV programs sought to achieve mass appeal by attempting to cater to the entire group.
The results of the CBC's research into participation rates among the entire population indicated a distribution as follows: of the 141,000 target population only about 49,000 people actually watched some part of the series. Of this group, only 17%, or 24,000 people watched the programs regularly. Another 18% were classified as casual viewers who watched some, but not all, of the presentations. The remaining 65% saw none of the programs and many of this group were never aware of the series, despite what the CBC described as "an extensive publicity campaign". The CBC researchers identified a number of factors which may have affected participation. For example, the timetable was seen by some as too rigorous and demanding despite the fact that the CBC attempted to place the programs in time periods which were convenient and attempted to repeat programs whenever possible. The survey also pointed out that those who attempted to follow the course on their own were more likely to drop out of the course than those who organized themselves into groups to view the programs. Problems also seemed to arise from the series' primary objective to appeal to a mass audience. With 30 different language groups the audience was simply too "heterogeneous to permit effective instruction in a single course". The divergent nature of the group made it impossible for the educators to meet
the varying needs of participants who were at different levels of proficiency in the language. Another important factor which militated against the success of the program as an educational experience was the "isolation of the student from his instructors." Unlike the Russian language course described earlier, this program provided no opportunities for students to interact with instructional agents. It would have been impossible, therefore, for any reinforcement of learning to take place. The English language project does, however, demonstrate the potential for using television as a device to disseminate information to large numbers of people.

In 1962 the CBC produced a series of television programs for farmers entitled *This Business of Farming*. The programs were co-sponsored by the Manitoba Department of Agriculture and Conservation in collaboration with the University of Manitoba. The university and the government produced the materials for the course, the shows were produced by the CBC in their studios at CBWT Winnipeg and were distributed by two other affiliated stations, CKX-TV Brandon and CKOS Yorkton. The program was made up of:

...a series of five daily hour-and-a-half telecasts from Monday January 15 to Friday January 19. The Monday and Tuesday programs were devoted to beef cattle, the Wednesday and Thursday programs to field crops, and the Friday program to farm and home improvement.

They were aired in the mornings from 10:30 a.m. to 12 noon each weekday in the hope of reaching an estimated 15,900
farm households and an audience of 14,500 farm operators. The purpose of the programs was to disseminate information to farmers, to appeal to as wide an audience as possible and particularly to try to reach the small farmer "who had no previous contact either with an agricultural extension department or with their local agricultural district office." The television series was a pilot project to evaluate the use and possible effectiveness of the medium for promoting adoption and change. According to CBC estimates approximately 15,900 farm households or about 14,500 farm operators viewed at least some of the five programs. It was estimated that there were about 22,800 farm homes in the area with television: Additionally, 1500 to 2000 farmers, or other adult members of farm households not equipped with TV sets watched some part of the series in a farm home that did have a TV set, or in a community hall or elsewhere. The figures are impressive although closer scrutiny reveals that of the total number of farmers with TV sets only 4,800 watched all five programs, 33% of the total estimated number of farm operators with television. The findings seem to indicate as well that the programs did not reach the small farmers who traditionally do not have much contact with extension agents. The study did not consider the quality or degree of learning which resulted from the series and indeed the assumption that any learning could occur from such a use of television is tenuous. The
same could be said for the effects which the programs may have had on adoption of innovations. As Verner and Millerd have pointed out television may prove to be a useful device for disseminating information during the initial stages of adoption, but the medium in itself cannot be said to be a key factor in achieving adoption.  

In 1964 the CBC undertook a replication of the televised programs for farmers. The series, also entitled This Business of Farming was extended to include farmers in the three prairie provinces of Manitoba, Saskatchewan and Alberta. There were five one-hour telecasts aired during the weekday morning period. Material for the programs "was prepared by the Extension Services of the Departments of Agriculture of the three provincial governments involved, in collaboration with the CBC Prairie Regional Farm Department". The programs were produced by the CBC and broadcast over a network of fourteen CBC and CBC-affiliated stations covering territory from eastern Manitoba to the western portion of Alberta. There were five programs in the series covering some 28 topics:

The first four programs in the series, which dealt respectively with soils and summerfallow, forage crops and pasture management, the handling and improvement of beef cattle, and beef cattle feeding, were telecast to farmers in all three provinces. The fifth and final program in the series differed in each province: in Manitoba it dealt with education and farm career opportunities, in Saskatchewan with improving the farmstead, and in Alberta with farm management.
Findings from a CBC audience research study on this series tended to support findings from the 1962 experiment. A large number of farmers saw at least some part of the programs, but relatively few followed the entire series. Farmers in marginal operations were less likely to participate than those with larger farms, although there was some evidence of increased participation from those farmers who normally remained alienated from agricultural Extension services.

It might appear to be stretching the point somewhat to include these farm programs as examples of television being used as an extension device. Nowhere is there any evidence that these programs formed part of any educational method. Instead the programs themselves appear to have existed as the only so-called "educational" experience. There does not seem to have been any opportunity provided for direct or even indirect contact between the "learners" and an educational agent either before, during or after the experience. No provision was made to provide opportunities for agents to direct the learning or re-enforce learning behaviours. This condition then might be grounds to characterize these programs as educative as opposed to educational experiences, because it might be said that they provided no other opportunity than that of one which tends to educate. However, referring back to the earlier definition of an educational experience as one in which three components must exist: intent, planning
and management, it can be seen that in this instance the quality of intent existed in these particular programs. The earlier definition of "educative" precluded the existence of intent where a program was produced for purposes other than education. In the farm programs at least it was the intention of the program organizers to provide what they perceived as an educational experience. This intention affected the design of the programs, created a situation where some form of planning did occur, but provided no systems to manage the experience. The result then was an example of television being used as an extension or information device.

It is significant to note that the majority of studies on co-operative programs undertaken by the CBC are not contemporary. There seems to be little data to show the current level of CBC commitment to ETV programming. One possible reason for CBC's drop in involvement over the past few years is revealed by Faris in his study on the C.A.A.E.'s contribution to radio broadcasting. He makes the point that the level of co-operation between CBC and adult education agencies like the C.A.A.E. appears to be a direct function of the size of each organization. Originally, CBC's involvement in educational radio was high because its need for programming was great and its administrative structure was flexible enough to accommodate the needs of special interest groups like the C.A.A.E. The degree of co-operation began to drop, however,
as the institutions grew. As the CBC became bigger and demands on its time more varied, its programming priorities changed. Changes in personnel and philosophy in the C.A.A.E. as well affected its priorities. The result was a parting of the ways with both institutions moving into other areas. This process of change may have affected ETV programs as well. During the early 1960's, CBC television was in a state of development where it could afford to experiment in areas like adult education. As time progressed the corporation's responsibilities increased and became more clearly defined as an information and entertainment medium which resulted in a move away from a direct involvement with adult education activities.

Another key factor which may have affected CBC's participation in adult education activities was the effect of the television medium itself on established adult education structures. This factor is particularly germane to the evolution of the Citizen's Forum programs. They began on radio and when television was introduced the programs were transformed to the new medium. With this transformation came a profound change in the nature of the audience. Participation among the traditional listening groups declined while a new type of audience developed. The format of the programs themselves was altered drastically to fit the new medium and some basic administrative changes in the Forum structure.
occurred. For example the number and style of the discussion groups was reduced and while there was a substantial increase in the numbers of passive viewers the degree of active participation declined. In a way, the effects of the change in format of Citizen's Forum resembled the phenomenon which Verner has described in his discussion of the processes involved in cultural diffusion of adult education methods.

Verner proposes that a method of adult education "developed to meet a specific need in a culture at one moment in time is not always suited to the same need in the same culture at a different moment in time". In other words, the change in format, style and audience which occurred when the Citizen's Forum was transferred from radio to television resulted in the demise of that program because it no longer served the needs of its original audience in an appropriate way.

The CBC has, however, maintained a consistent position as advisor and technical assistant to institutions concerned with providing educational experiences for adult populations. The corporation has provided production and distribution facilities to these organizations to assist them to achieve their goals. Examples of this kind of co-operative effort can be found in university sponsored adult education programs.

University programs. Some Canadian universities
have conducted interesting experiments in the use of broadcast television to extend instructional experiences in adult groups outside the formal university system. Most of these ventures have involved a co-operative effort with the Canadian Broadcasting Corporation which has acted as a technical advisor to the educational institution. The historical development of university involvement with ETV broadcasts is outlined in a table extracted from an article by G.A.B. Moore in the British Journal of Educational Technology. Moore's chronology deals with the growth of educational technology in Canadian higher education institutions. Moore uses the term "educational technology" mainly as a synonym for television and while his scheme deals with other kinds of organizations besides ETV, it does help to put the role of broadcast television in Canadian universities into perspective with developments in other areas of educational media. Moore characterizes the evolution of ETV in Canada as a history which is "long in time and short in intensity". An examination of his chronology reveals an interesting trend in the evolution of broadcast television. He lists the first university sponsored ETV broadcast as originating from the University of Toronto in 1957. There is a brief but significant effort put into broadcast television from 1961 to 1964 at which point university experiments into closed circuit TV begin to take the place of broadcasting. The move away from broadcasting coincides
### TABLE I

Implementation of Organized Educational Technology Activity in Canadian Universities to 1965

<table>
<thead>
<tr>
<th>Year</th>
<th>Institution</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1957</td>
<td>Toronto</td>
<td>Broadcast televised instruction non-credit</td>
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<tr>
<td>1958</td>
<td>Carleton</td>
<td>Co-operative film series on space technology</td>
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<td></td>
<td>McMaster</td>
<td>CCTV - observation and demonstration</td>
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<td></td>
<td>Toronto</td>
<td>Broadcast televised instruction -credit (French)</td>
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<tr>
<td>1961</td>
<td>Alberta</td>
<td>Broadcast televised instruction -credit (French)</td>
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<tr>
<td></td>
<td>Montreal</td>
<td>Broadcast televised instruction -credit (French)</td>
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<td></td>
<td>Sherbrooke</td>
<td>Broadcast televised instruction -credit</td>
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<tr>
<td></td>
<td>Toronto</td>
<td>Broadcast televised instruction -credit</td>
</tr>
<tr>
<td>1962</td>
<td>McGill</td>
<td>Closed circuit television - lecture</td>
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<td></td>
<td>Sir George Williams University</td>
<td>Broadcast televised instruction</td>
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<tr>
<td></td>
<td>Calgary</td>
<td>Broadcast television</td>
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<tr>
<td></td>
<td>Sir George Williams University</td>
<td>Broadcast televised instruction -credit</td>
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<tr>
<td></td>
<td>Calgary</td>
<td>Controlled television experiment in Economics</td>
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<tr>
<td>1963</td>
<td>Laval</td>
<td>Broadcast televised instruction -credit</td>
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<tr>
<td></td>
<td>Western</td>
<td>Extension lectures via cable television</td>
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<td></td>
<td>Ottawa</td>
<td>Broadcast televised instruction -credit (French)</td>
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<td></td>
<td>New Brunswick</td>
<td>Broadcast televised instruction -credit</td>
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<tr>
<td></td>
<td>McMaster</td>
<td>Closed circuit television for demonstrations</td>
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<tr>
<td></td>
<td>Montreal</td>
<td>Established Central Instructional Media Office with responsibility for all instructional media</td>
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<tr>
<td>Year</td>
<td>Institution</td>
<td>Activity</td>
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<td>1965</td>
<td>British Columbia</td>
<td>Closed circuit television demonstrations</td>
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<td></td>
<td>Calgary</td>
<td>Closed circuit television demonstrations, lectures</td>
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<td></td>
<td>Laval</td>
<td>Closed circuit television</td>
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<td></td>
<td>Manitoba</td>
<td>Closed circuit television - lectures</td>
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<tr>
<td></td>
<td>McMaster</td>
<td>Closed circuit television - lectures</td>
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<td></td>
<td>Saskatchewan (Saskatoon)</td>
<td>Closed circuit television - lectures</td>
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<td></td>
<td>Saskatchewan (Regina)</td>
<td>Credit courses via telephone to remote study centres</td>
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<tr>
<td></td>
<td>Simon Fraser</td>
<td>Audio tutorial system in biology</td>
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<tr>
<td></td>
<td>Toronto</td>
<td>Closed circuit television demonstrations</td>
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<td></td>
<td>Waterloo</td>
<td>Closed circuit television demonstrations</td>
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<td></td>
<td>York</td>
<td>Closed circuit television - lectures</td>
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<td>1966</td>
<td>Carleton</td>
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<td></td>
<td>Laurentian</td>
<td>Broadcast television - credit</td>
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<td></td>
<td></td>
<td>(French)</td>
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<td>Memorial</td>
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<td></td>
<td>Moncton</td>
<td>Broadcast television - credit</td>
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<td>(French)</td>
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<td></td>
<td>Queens</td>
<td>Closed circuit television - demonstrations</td>
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<td></td>
<td>St. Francis Xavier</td>
<td>Broadcast television - non credit</td>
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<td></td>
<td>Saskatchewan (Saskatoon)</td>
<td>Division of Audio Visual Services established with responsibility</td>
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<td>for all instructional media</td>
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<td></td>
<td>Toronto (Scarborough)</td>
<td>Closed circuit television - lectures and demonstrations</td>
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<td></td>
<td>Windsor</td>
<td>Department of Communications established - closed circuit television</td>
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<td></td>
<td></td>
<td>lectures, all instructional media services</td>
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<td></td>
<td>Western</td>
<td>Closed circuit television - lectures demonstrations</td>
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<tr>
<td></td>
<td>York</td>
<td>Closed circuit television - lectures</td>
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<tr>
<td>Year</td>
<td>Institution</td>
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<tr>
<td>1967</td>
<td>Dalhousie</td>
<td>Closed circuit television in medical services</td>
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<td></td>
<td>Memorial</td>
<td>Educational Television Centre established</td>
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<td></td>
<td>Simon Fraser</td>
<td>Audio Visual Centre established with responsibility for all instructional media</td>
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<tr>
<td></td>
<td>Western</td>
<td>Television Services Department established</td>
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<td></td>
<td>York</td>
<td>Instructional Aids Resources Department established with responsibility for all instructional media</td>
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<td>1968</td>
<td>Alberta</td>
<td>Department of Radio-Television established</td>
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<td></td>
<td>Laval</td>
<td>Service Audio Visuel established with responsibility for all instructional media</td>
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<tr>
<td></td>
<td>McGill</td>
<td>Instructional Communications Centre established with responsibility for all instructional media</td>
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<td></td>
<td>Montreal</td>
<td>Centre des Techniques audiovisuelle with responsibility for all instructional media</td>
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<td>Waterloo</td>
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<td>1969</td>
<td>Calgary</td>
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<td></td>
<td>Ottawa</td>
<td>Department of Communications established</td>
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<tr>
<td>1970</td>
<td>Toronto</td>
<td>Instructional Media Centre established with responsibility for all instructional media</td>
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</tbody>
</table>

with changes in relationship between the CBC and other institutions mentioned earlier. It tends to support Faris'
thesis that changes in organizational goals within the CBC and its co-operative agencies resulted in a general move away from the use of broadcast television as a medium for extending educational experiences to adults in Canada.

Some examples of university involvement with ETV which are of historical interest include series like Decks Awash produced by the Extension Division of Memorial University in Newfoundland.\(^{54}\) The objective of the series was to disseminate fisheries information to local fishermen and provide opportunities for them to exchange information and ideas with each other and the provincial extension agents. Eleven half-hour interview-discussion programs were produced in January of 1962. A second series was produced in 1963 and extended into 1964. In addition to the programs regular newsletters were mailed out to fishermen and supplemented with visits by the local extension field representative.

Another example of a university sponsored ETV project was Town Talk an experiment in community development in the Thunder Bay region in 1967.\(^{55}\) The project was co-sponsored with Lakehead University and incorporated a number of activities including television, hot line radio, public meetings and formal discussion sessions, designed to acquaint residents with local issues of concern, to seek their advice and encourage action to promote community change.

Other examples of the use of broadcast television
in adult education programs can be found originating from
L'Universite de Montreal and L'Universite de Sherbrooke
which first offered broadcast courses for credit in 1961.56
In 1964-65 the University of Ottawa began to offer programs
by television. In 1966 Laurentian, Memorial and Moncton
universities produced ETV programs along with St. Francis Xavier.
Other pioneer applications of ETV can be found in work produced
by Sir George Williams, McMaster, and the University of
Calgary.57

One of the most ambitious experiments in the use
of broadcast television as an extension device was TEVEC,
an educational and research project developed in 1968 by the
Continuing Education branch of the Department of Education
in Quebec.58 The aim of the project was to offer upgrading
programs in French, English and Mathematics to adults in the
community of Saguenay/Lac St. Jean. Besides meeting an
educational need, the program was also intended to promote
community development, to relate the learning taking place
to the everyday lives of the adults involved in the program.
The intention was to use the programs as a basis for effecting
social change. TEVEC had three major components: (1) television,
used to disseminate information for the courses, (2) correspondence
courses, to provide continuity and reinforcement for the learning,
and (3) social activation, the direct involvement of the
community with the programs through meeting centres, and contact
with trained "social animators".

Television programs were broadcast four times a week with each program lasting one and one-quarter hours. The choice of a daily schedule of programs was to provide continuity in the courses allowing participants to progress systematically through the material to be covered. Every Friday a so-called "synthetic programme" was broadcast which served to summarize the material covered in the previous four days. The summary broadcasts served an evaluative function by providing the answers to quizzes held during the week's series. Participants could check their answers with the correct ones to determine their attainment of the objectives. The Friday programs also served as a forum to promote other social activities related to the project.

One of the most important features of the television component of the project was the creation of "tele-clubs" as part of the educational experience. These clubs, which closely resembled the listening groups in the old Farm Radio Forum, met regularly to view the programs and discuss the issues raised. The results of their discussions were transmitted in report form to the TEVEC programmers. The reports and the responses from the programmers were published in the local newspapers as a form of "feedback" to the participants.

The correspondence course component of TEVEC functioned in a slightly different way from traditional forms of correspondence
study. Here it acted only as an evaluation device where participants were supplied with questionnaires and answer sheets for the examinations conducted on the television programs. Participants completed their questionnaires, submitted them by mail to the central organization where they were marked and returned. Written materials, texts, workbooks and exercises were not really a part of the correspondence component.

The social activation component was designed to permeate all facets of the TEVEC program. The organization of the tele-clubs not only served as an opportunity for learners to come into contact with instructional agents but also provided an opportunity for participants to meet with each other and with animators to discuss community issues of concern to all. In addition to the tele-clubs there were organizations set up called "repetition centres" which served as drop-in centres for adults to meet with each other and with instructional agents. Committees made up of local citizens and representatives from TEVEC were organized to coordinate the tele-clubs and the repetition centres. In all there were 73 local committees and four district committees with a total membership of 1200 people. These committees conducted conferences and public meetings to discuss issues connected with TEVEC. The forums served as a continuing system for evaluating the program and helped to identify topics of interest
to local citizens which might become the subjects for future ETV programs. As well, from these committees came the social animators who were trained as group leaders to organize and conduct the tele-clubs and repetition centres.

In its design, TEVEC represented an effective use of television as part of an educational program. The medium was used as a way of disseminating information to adults as part of their educational experience, an experience which included continuous management by educational agents through the correspondence program, the tele-clubs and the repetition centres.

The Tele'universite de Quebec is another example of university involvement in the use of television as a medium to distribute educational experiences to adults. Founded in 1972 the Tele-universite began as an arm of the University of Quebec, but later became a semi-autonomous campus within the Quebec university system supported and coordinated by representatives of the university. The Tele-universite offers three programs, "two of which are specifically aimed at teachers and the third at the general public".

The first program of professional development for teachers is called PERMAMA (PERfectionnement des MAitres en MMathematiques). It allows secondary school mathematics teachers to obtain a bachelor's degree in their subject specialty. The program began in 1972 before the university could gain
access to broadcast facilities so programs were distributed on videotape and screened to groups of math teachers meeting in their local schools. This procedure resulted in a strong emphasis on group meetings in a formal classroom setting with television playing the role of an information device. In total there were 70 groups of teachers involved in the PERMAMA project, each group led by a "moniteur-animateur". The animator's role was similar to that of the group leader in the TEVEC programs. He or she acted as a discussion leader not as a teacher, because in many cases the animator was himself one of the students in the program.

PERMAFRA, the second program in the tele-universite series began in 1975 and was designed to provide professional training for primary French language instructors. It used a similar delivery system to PERMAMA with television acting as a source of information along with correspondence material and regular meetings with the animator to discuss issues connected with the courses.

The Tele-universite's first attempt at broadcast television began with the third program called "Connaissance de l'homme et du milieu", a series of programs designed for the general public which dealt with the "history and philosophy of the co-operative movement worldwide, and the economic, social and legal aspects of co-operatives in Quebec...". With over 3000 co-operatives functioning in Quebec and a
total membership of over a million people it was perceived that there was a need for this kind of program. Written texts and correspondence materials formed the basis for the course and these materials were supplemented by, and organized around a series of 13 television broadcasts. In addition four full day seminars were scheduled for the participants to meet to discuss issues raised by the TV programs. Like PERMAMA, PERMAFRA and TEVEC, the seminars were organized and led by animators who were assigned to encourage and lead discussion on the broader issues dealt with in the programs and as well to assist the groups to identify specific local issues which related to the general topics.

Open university. Perhaps the most impressive contemporary example of broadcast television being used for educational purposes is Britain's Open University. It is an example of ETV on a massive scale and represents a degree of commitment to the use of the medium which is, perhaps, unparalleled. The Open University began in 1969 as an experiment in distance education to provide university level training to individuals who, for various reasons, could not leave their jobs to attend formal university programs. Those who enroll in the Open University are able to receive undergraduate training in six subject areas: Arts, Social Sciences, Mathematics, Physical Sciences, Technology, and Educational Studies. The first students were admitted to the program in 1971 and the
first graduates completed in 1972. Courses in the Open University are organized around four basic components: correspondence study, radio and television broadcasts, summer schools, and study centres. The television programs function as a primary source of information and as a device to extend instruction outside the boundaries of an institution. Participants enrolling in courses receive books, supplementary materials, and related correspondence materials which form the independent study component. A sense of formal instruction is achieved through the ETV programs broadcast regularly over BBC television and repeated on radio. In addition participants are required at some point in their studies to attend a summer session program at a local university and are also required to meet regularly with course tutors at the local study centre. The centre provides an opportunity for participants to come into contact with instructional agents as well as the chance to meet with other participants to exchange information and ideas.

The amount and variety of programming undertaken by the Open University is impressive. As Table II shows, a total of 106 programs covering seven major subject areas have been developed since 1972. The table shows the evolution of these courses from 1972 to 1976 and although they are more heavily weighted towards the social and physical sciences the number of courses in other areas is also impressive. One point of particular interest is the subject which was
introduced in 1973 to provide post-graduate courses for participants who had completed their degrees. Its creation demonstrates a degree of commitment to continuing education which goes beyond the level of similar programs.

TABLE II
Evolution of Courses in the Open University Program

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<tr>
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<td>2</td>
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<td>6</td>
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</tbody>
</table>

Total Courses: 106

What is unique about the Open University is its existence as a separate educational entity, not affiliated to a parent university like the examples given in the Canadian model. Of course there are constitutional constraints in Canada, discussed earlier, which preclude the development of a national education body and there are significant differences in the population base in both countries to allow for the
Another unique feature of the Open University is the degree to which the various educational processes are integrated into a complete system. For instance, broadcasting, and particularly television broadcasting, is perceived by those associated with the Open University as an information or extension device forming one equal part of a comprehensive educational methodology which includes opportunities for learners to interact with instructional agents in a formal setting. In an early publication of the Open University, Robert Rowland, Head of BBC/Open University productions presented some of the issues of concern to professional broadcasters. His concern centres mainly around one of the distributive properties of television: scheduling and the effects it might have on participation and the individual's learning rate. He reports that while early research indicated that audience commitment to the programs was fairly stable around the 80 per cent mark, scheduling might affect this level of participation over time. Broadcasting schedules raise two major problems: first, learners might not be able to adjust their personal schedule to meet the demands of the broadcasts and secondly, those students who fell behind in their correspondence study would find it difficult to keep up with the course because the television programs progressed at a set rate. One possible solution to the problem was
to develop some system for repeating the programs. Rowland states that in the early stages of the Open University a decision was made to broadcast the television program twice and then repeat it a third time in a modified form over radio. At the time this article was written there was no clear evidence that the repetition was successfully meeting the learner's needs and he proposed more research studies into alternate forms of distribution. Many of Rowland's concerns are reinforced in a 1974 study by Bates which examined the characteristics of Open University students. Bates' survey indicates that while most of the participants watch most of the television programs, many do not watch all of them. He concludes that scheduling plays an important part in these findings indicating an inherent weakness in the use of broadcast television as a distribution system. One possible solution to the dilemma is seen in the use of videotape as a means to store programs and make them available to participants at the local study centres.

Another important issue raised by Rowland relates to the fixative property of the medium. He makes the point that more efficient means must be employed to assure that modifications are made to programs identified as having weak spots. He recognizes and supports the idea of continuous revision but he is also quick to recognize the economic problems which such a plan could create. While it is a
fairly simple technical process to revise television programs, it is also very expensive.

In 1976, after eight years of operation, Radcliffe re-examined the role of television in the Open University. He identified eight characteristics of broadcasting which play an important part in the over-all operation of the education system. Radio and television he concludes have an important part to play in delivering information and instructive experiences to the learners. Its importance, he concludes, derives from what he terms the "unique characteristics" of the medium for conveying information. Here he seems to be addressing some of the issues discussed in Chapter III of this study, but regrettably he does not elaborate on the topic. Another important role of television is its capacity to motivate the learner and to present information in a logical and well paced manner. Further he concludes that "broadcasting is an extremely valuable way of attracting the casual viewer...motivating him to become an active learner". In addition, the television programs are regarded as valuable not only to the independent learner studying at home, but also as an instructional device to be used in the formal instructional setting. Radcliffe recognizes the importance of television's secondary use in the form of recorded information on videotape to be used for review and enrichment. He stresses the importance of co-operation between broadcasters, program planners and adult
educators in the planning, development and use of ETV broadcasts. This conclusion is significant to the definition of television's role in the Open University system because it recognizes that television "is at its most effective when it is planned so as to complement and support other materials and activities, including, for instance, print in various forms, group activity, and face-to-face tuition". The work of Radcliffe, Rowland, Bates and others connected with the Open University demonstrates a level of co-operation between broadcasters and adult educators which has not existed to quite the same degree in the Canadian model. There is a strong sense of commitment to the use of ETV in the Open University system, but at the same time there is a recognition of its limits within the total educational experience. Television functions to extend some parts of the educational institution into people's homes, but it does not, by itself, attempt to manage the entire experience.

**Educative Television**

Even a cursory glance at current and past television fare reveals literally hundreds of examples of programs which might be termed educative as defined in this study. These are the programs which, under certain circumstances may be used as part of an educational experience, but were not originally designed for that purpose and in themselves, cannot function as an educational or instructional device or method. In
order not to become overcome with the number and variety of educative programs an attempt has been made to categorize them. The categories are arbitrary and perhaps not complete because they concentrate on the content of the programs instead of their design or use. The attempt here will be to select representative examples of historical and contemporary interest which illustrate the criteria described for educative television. Some examples, particularly in the Instructive category may seem close to generally perceived ideas of educational television. Some in the other categories may at first glance appear to be as outlandish as the example in Chapter II where broadcasters promoted the old Amos and Andy Show as an educational experience. The point to bear in mind is that the choice of these examples has been determined solely on their content and content is the only real criterion which can be used to judge their "educational" merit. It has been already established that the criteria for an educational program depend on factors other than program content. These educative programs however, do have a part to play in adult education at certain times. They can be used to enrich an educational event or provide information relevant to the content of a particular instructional event, but they were never originally designed to be part of a formal instructional event.

Another point should be stressed here as well. The
organization of these programs as educative should not be interpreted as an attempt to relegate them to a position of lower status when compared to educational television. Educative programs are not less important, they are only different from educational television because their status within the educational enterprise is determined by their use not by their original design or intent. As such they do not fall within the direct concern of adult educators until and unless the adult educator perceives a need to use them within a particular instructional event which he has designed. He would then choose to use them in whole or in part but only after the fact and only because they relate to his need to use them for information or enrichment within a particular educational program. Use, then, determines status. If the particular program is used to provide enrichment or information it may be regarded as an instructional device, but the TV program, in itself, is not.

Instructive programs. Programs in this category have already been described as those which broadcasters themselves perceive to be their contribution to "educational" television. They often deliver information using a lecture demonstration format which resembles a televised classroom setting. These programs are created as unique experiences and are not linked to any other means to ensure that learning takes place. The two most obvious contemporary examples
of instructive programs are **Sunrise Semester** and the University of the Air, neither of which is produced by the CBC. University of the Air began during the 1965/66 program year and was produced by CJOH, the Ottawa affiliate of CTV.\(^1\) The series was expanded to cover the entire CTV network and has operated as a national program ever since. **Sunrise Semester** is produced by CBS television and is received by many households in the southern portion of British Columbia.\(^2\) Some historical examples of other types of programs which could be called instructive are identified by Thomas in his study on "ETV and Adults".\(^3\) One is the **Live and Learn** series which began in 1964 and later evolved into another series called **Extensions** which used university faculty as guest lecturers on a range of subjects in the arts and sciences.

**News and public affairs.** It is in this category where the educative offerings of broadcasters are most apparent. National and local television news programs play an important role as a primary source of information on news and current events. Public affairs programs provide a forum for more in-depth analysis of news and afford the opportunity for broadcasters to editorialize. The CBC is generally recognized as a major contributor to the development of public affairs programs. One of CBC's most significant public affairs programs was **This Hour Has Seven Days** which, through its controversial approach to news interpretation
and investigative reporting contributed much to popularizing the idea of public affairs programming. Current examples of public affairs programs include shows like *Marketplace*, a half-hour program on consumer affairs and *The Ombudsman* which functions as a forum for individuals to air their grievances against personal injustices perpetrated by government agencies and industry. The *Nation's Business* is a program designed to allow political parties regular opportunities to present their views on contemporary political issues. *Country Canada* is an information and public affairs program designed for farmers. Besides these regular series the CBC also produces a number of special news programs throughout the year which deal with contemporary issues.

The CBC is not the only source of public affairs programming. The CTV network in Canada produces programs like *Canada, A.M.* and *W-5* which examine topical issues and personalities. In the United States, the Columbia Broadcasting System produces *60 Minutes* and the Public Broadcasting System produces programs like the *MacNeil/Lehrer Report*. These kinds of programs have an important part to play in presenting issues to the viewer which he may think about and possibly discuss with others. He may also learn something from them, but they are not educational programs. Their primary function is to inform and entertain. They are not designed to systematically
affect behaviour.

**Documentaries.** This term is used by broadcasters to describe any form of non-fiction production and even some fiction programs which use a particular style of presentation. In fact the term "documentary" has a much more precise meaning, but to avoid a long discussion here this study will accept the broadcasters' use of the term to describe any non-fiction production. Some examples of Canadian Documentary series include programs like *Living Tomorrow, Heritage* and *Man Alive* which deal with social, political and cultural issues. The CTV network's series *Witness to Yesterday* is an example of an historical documentary. Other related programs in this category include the CBC series *The Nature of Things*, produced during the 1960's, and a more contemporary example, *Science Magazine*. These type of programs all seek to entertain and inform viewers on past, present and future developments in the physical and social sciences.

**Interview programs.** These programs have a fairly broad educative appeal. They use a structured interview style to present information and to deal with issues in a systematic way even though they are also concerned with entertaining viewers. Some example programs include *Look Who's Here*, a CBC production where host Max Fergusson
conducted interviews with individuals from all walks of life and the Watson Report where host Patrick Watson conducts in-depth interviews with Canadian political figures. Other programs include the CBC's V.I.P. series and the CTV network series Question Period which also deal mainly with interviews of political figures and notable people in public life. Programs like these seek to provide viewers with a broader analysis of issues of current concern. Meet the Press, an American series which has become an institution over the years is yet another example where a television interview program is used to present information in a structured form to the viewing audience.

Discussion programs. These are the "talk shows", a category which is marginal even in the educative sense. Programs here are produced solely for entertainment, but depending on the subject matter, the viewer may devote the kind of attention necessary to learn something. Examples of discussion programs abound: there is the Bob McLean Show, Take 30, and 90 Minutes Live on the CBC network. On the American stations there is Merv Griffin (CBS), Mike Douglas (CBS), and Johnny Carson (NBC). These programs are specifically produced for entertainment and have few redeeming qualities as educative experiences, but are included here because under some specific circumstances they may offer viewers some opportunity to learn.
Process demonstration. These programs probably exhibit the strongest characteristics of an educative type of program. While they are primarily produced as entertainment they do make some effort to demonstrate processes which might be of use to the viewer. Examples include the CBC production Mr. Chips which demonstrates procedures and techniques of woodworking designed to assist the "home handyman" and Celebrity Cooks which offers viewers the chance to observe celebrities from all walks of life preparing their favourite dishes. The Galloping Gourmet and Julia Child are other examples of cooking programs. Physical fitness is the subject of programs like Kareen's Yoga, produced by CTV, and Shape up with Sparling, produced by NBC. The PBS network offers a very popular gardening program called Crockett's Victory Garden produced on the campus of Boston University. The balance between the entertainment and instructive features of these kinds of programs differs greatly. Some present their material in a more structured manner than others but they all may make some contribution to the viewer by assisting him to understand the procedures involved in developing certain skills.

Cultural programs. This category describes those fiction programs which are perceived by viewers to be outstanding and which not only entertain but enrich our lives. Masterpiece Theatre on the PBS network is an excellent example of this
type of program. It has brought to the attention of viewers such series as the Forsyth Saga and Upstairs, Downstairs which have not only entertained viewers but helped to enrich their understanding of the social and political development of society. Examples of individual programs and series abound, far too many really to even begin to describe them here. Besides, to identify programs in this category requires essentially an individual value judgment. Not everyone might agree on what should or should not be included on the list. The purpose for creating this broad category was to allow for this type of indefinable, individual judgment which is known as "taste". There is little doubt that these kinds of programs contribute to the general development of society but it is only under special circumstances when they are used in an educational event that these kinds of programs become more than entertainment. In such an instance they become an educative experience.

Role of Educative Television

To place the role of educative television into some kind of perspective descriptive data are presented here which indicate the amount of time which broadcasters devote in their schedules to these types of programs. Since 94.7% of Canadians watch television at some time during a normal week it seems fairly certain that the medium exerts some influence on their lives. How much and what kind of influence
really go beyond the scope of this study, but the number and the timing of educative programs help to reveal the degree of commitment which broadcasters exhibit towards educative programming. Data for this section have been extracted from a study undertaken by the author in 1973 which examined the total number of television programs available during a typical one week period to Canadians living in the southwestern portion of British Columbia.\(^77\)

The data includes programs broadcast from American stations and distributed to Canadians through local cablevision systems. At that time the southwestern portion of the province received ten television stations, three Canadian and seven American. They were:

- CBUT - Channel 2 (CBC television network)
- CHEK - Channel 6 (combined CBC and CTV affiliate)
- CHAN - Channel 8 (CTV television network)
- KOMO - Channel 4 (ABC television network)
- KING - Channel 5 (NBC television network)
- KIRO - Channel 7 (CBS television network)
- KCTS - Channel 9 (PBS television network)
- KTNT - Channel 11 (Independent CBS affiliate)
- KTVW - Channel 13 (Independent)

It should be noted that since 1973 two more Canadian stations have been added to the service. They are the CBC French language network and CKVU, a commercial independent station on the UHF band which has replaced KTVW as Channel 13 on the cablevision service. One might assume that the appearance of two more stations would affect the viewing rate by increasing
the viewer population or increasing the amount of time existing viewers devoted to televised viewing. The research indicates that these assumptions are incorrect. When the number of stations increases the number of viewers does not follow suit. Instead it seems that viewers redistribute their time in such a way as to include those programs from the new stations which they wish to watch. In this sense the inclusion of two new Canadian stations into the service may affect the data presented here by skewing the viewer rate towards Canadian programs, but it will not affect the overall pattern of viewing or the numbers of viewers.

In almost any given week Vancouver viewers have a choice of over 1580 television programs amounting to approximately 1103.58 hours of program time. Each of the 1580 programs was examined and placed into categories according to their subject: drama series, comedy series, variety shows, educative programs, and so on. For the purposes of brevity only those in the educative categories are reported here. Educative programs directed towards children were ignored because the main focus of this study was adult material.

As Table III shows those programs described as "instructive" account for only 7.02% of the total number of programs being offered to adults. They account for 58.30 hours or 5.28% of the total hours of programming for the week. Combining all the categories except cultural programs
it can be shown in Table IV that they amount to only 36.14% of the total number of programs offered and take up only 26.36% of the total hours of program time. The distribution of these programs is shown in Table V. In Table VI the programs were then broken down to compare the relative percentage distribution of Canadian and American programs. It was found that Canadian educative series accounted for only 1.77% of programs occupying only 1.45% of the time. American instructive series accounted for 5.25% of the total programs amounting to 3.82% of the time. In total the American stations offered more programs covering more hours which is understandable considering they outnumber Canadian stations. Table VII shows the percentage distribution of programs by time of day indicating that the majority of instructive programs appear to be offered in the morning. A closer examination revealed that the morning programs usually occupy the time slot from 6:00 am to 7:00 am, not a particularly convenient time for adults to watch television. The balance of educative programs are distributed thinly but evenly over the entire day.

Table VIII shows the distribution of instructive programs by day. The total number and hours devoted to instructive programs by all stations is small. The CBC offers only 9 programs per week amounting to only 5 hours of broadcast time. The offerings on the CTV network are even smaller.
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<th>Number of Hours</th>
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<td><strong>Total:</strong></td>
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## TABLE IV

Comparison of Educative Programs with Total No. and Hours of Programs Available

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<th>Number of Programs</th>
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**TABLE V**

Distribution of Educative Programs

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<td>19.00</td>
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*Number of programs scheduled during the day.
+Total number of hours for daily programming.
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<th>%</th>
<th>No.</th>
<th>%</th>
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Total: 571 35.91 295.04 26.36

* Denotes Canadian programs
+ Denotes American programs
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<th>Morning (6am-12am)</th>
<th>Afternoon (12am-6pm)</th>
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<tr>
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*Denotes Canadian programs
+Denotes American programs
TABLE VIII
Distribution of Instructive Programs
By Station By Day and By Week

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<td>21</td>
<td>20</td>
<td>16</td>
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<td></td>
<td>Hrs.</td>
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<td>11.00</td>
<td>9.60</td>
<td>11.05</td>
<td>8.05</td>
<td>8.05</td>
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% Canadian Sub-total |
Nos. 1.70  Hrs. 1.35
KCTS, the PBS affiliate in Seattle, Washington, offers a substantial amount of time in comparison, but that situation is to be expected considering their evolution and historical commitment to alternate educative types of programming. While educative types of programs still form a major proportion of television fare scholars like Thomas point out that one should not forget that the main role for broadcast television is to entertain people and act as an advertising medium. Nevertheless, more research into the nature and effects of educative television might certainly provide some useful data for adult educators. This kind of research, however, should not be based on the assumption that these types of programs offer educational experiences for adults. It is possible that they do exert considerable influence in their own way by acting as a source of information or enrichment. It is possible that the techniques used by program producers to convey their messages may affect viewers in general and predictable ways. The main point to remember with educative programs is that they exist as unique experiences and are produced for reasons other than promoting learning. They may have a part to play in adult education if adult educators choose to use them but they are not by themselves an adult education experience.
FOOTNOTES


Southwestern Signal Corps Training Centre and Camp San Luis Obispo, Calif., "Instructor-student Contact in Teaching by Television", Training Evaluation and Research Programs, Part IV, Training Research Programs, 1953.


16. Ibid.


20. Ibid., p. 272.

21. Lambert, op. cit., p. 3.


23. Ibid., p. 21.

24. Ibid.

25. Ibid., p. 34.

26. Ibid., p. 35.


28. Beginning Russian, op. cit., p. 34.


30. Ibid., p. 39.

31. Ibid., p. 11.

32. Ibid., p. 54.

33. Ibid.

34. Ibid., p. 58.

35. Ibid.


37. Ibid., p. 3.

38. Ibid., p. 10.

39. Ibid., p. 5.

40. Ibid., p. 10.

41. Ibid., p. 15.

42. Coolie-Verner and Frank W. Millerd, *Adult Education and the Adoption of Innovations by Orchardists in the Okanagan Valley of British Columbia*, University of British Columbia: Department of Agricultural Economics, 1966.

44. Ibid., p. 2.

45. Ibid., pp. 286-297.

46. Faris, op. cit.

47. Canadian Association for Adult Education, "Has TV Helped Citizen's Forum", *Food For Thought*, 17:5, February 1957.


49. Ibid., p. 5.

50. It should be noted that Citizen's Forum is not a "method" of adult education. It is, rather, a program. Nevertheless the change in the character of Citizen's Forum affected its acceptance in a similar fashion to that described by Verner.


52. Ibid., p. 33.

53. One notable exception is a program by St. Francis Xavier University in 1966.


56. Moore, op. cit., p. 34.

57. Ibid.


60. J.S. Daniel and M. Umbriaco, "Distant Study in French Canada: The Tele-universite", Teaching at a Distance, 4, Britain: The Open University, November 1975, pp. 8-13.

61. Ibid., p. 9.

62. Ibid., p. 11.


64. Data extracted from:


65. Robert Rowland, "Some Thoughts on the Use of Broadcasting in the Open University", Teaching at a Distance, 4, Britain: The Open University, February 1975, pp. 61-65.


67. John Radcliffe, "The Contribution of Broadcasting to Continuing Education", Teaching at a Distance, 6, Britain: The Open University, June 1976, pp. 46-55.

68. Ibid., p. 53.

69. Ibid., p. 54.

70. Ibid.

71. Thomas, op. cit., p. 61.

72. Current examples of programming are selected from programs available to viewers in the southwestern portion of British Columbia. Local programs may differ in other parts of Canada.

73. Thomas, op. cit.

75. For a more detailed discussion about documentary film see:


79. Alan Thomas, "Audience, Market and Public, An Evaluation of Canadian Broadcasting".
This study has sought to examine what are believed to be some of the fundamental issues surrounding the role of educational television in adult education. In Chapter II a definition of adult education was given to set the basic parameters for examining ETV. A number of key concepts in adult education were also discussed to show the difference between adult learning as a formal activity and adult learning within the natural societal setting. The distinction was extended to include the conceptual differences between education, learning, and instruction. Next, Werner's conceptual scheme for classifying adult education processes was discussed with particular emphasis placed on the three
major categories of methods, techniques, and devices and their relationship to the process of adult education. Educational television was then defined as a device and as a method of adult education. These definitions then formed the basis for analyzing a number of existing definitions for ETV gathered from various sources. The purpose of the analysis was to test the validity of existing definitions and the stability of the definitions created for this study. The accuracy of definitions in this study was important to any further analysis.

A dilemma was found to exist between the role of television in the formal instructional setting and its role as a medium for mass communication which likely could result in learning. To unravel the dilemma a further definition was created for educative television to describe the medium's role as an informal educative device from which adults might learn. Seven major categories of educative television were constructed to describe programs which in themselves might provide opportunities for adults to learn but which were not specifically designed for that purpose.

Next some important issues were discussed concerning the role of television in instruction. The processes of learning and instruction were identified to show the relationship between each: learning as a process of internal change in behaviour and instruction as the external process which directs and affects learning. Gagne's eight phases in the learning process
were discussed and related to activities in the instructional process. Gagne's perception of the role of television in instruction was analyzed based on his learning model.

A variety of studies and reviews of studies on television's effectiveness for instruction were then examined. These included some early studies with adult groups which were of historical interest, and reviews by Travers, Lumsdaine, Chu and Schramm which are classics in the field of communication study. To focus on adult instruction the work of Ohliger and more recently Campeau were also examined. Some issues surrounding the nature of research into ITV were identified and discussed including the effect which comparative effectiveness studies have had on the evolution of theory in instructional television.

The characteristics of television were examined using Edling's scheme to show the difference between the fixative, distributive and manipulative properties of the medium and a modification was proposed to the manipulative category to facilitate a more precise system for identifying internal and external factors which may affect the way in which television communicates. Some issues surrounding the existence or non-existence of a visual language were also discussed. It was proposed that a visual language might exist which could affect television's capacity to communicate and, in turn, might affect its performance as an instructional device. The proposition was raised not for purposes of drawing any conclusions
but to raise the possibility of another approach to the study of ETV which might be more appropriate to its role as a device to enhance instruction as opposed to its role as a unique means for managing the entire instructional process.

Television program offerings for adults were then examined in light of the definitions and issues discussed earlier in the study. The focus of interest here was on Canadian programs, specifically the work of the CBC, although some examples were drawn from outside the Canadian scene. Examples of ETV’s use as a method of adult education were difficult to find. For the most part television was used as a method in experimental studies although one notable innovation from a field outside of adult education was identified in the current HERMES satellite projects sponsored by the federal government Department of Communications. Although the projects to date are still experimental, the satellite affords the opportunity to use broadcast television in the future as a method of adult education.

A number of examples were identified where ETV was used as an information or extension device. CBC contributions were discussed as well as examples generated by Canadian universities. To compare the design and management of these programs a section was devoted to Britain’s Open University which represents one of the most comprehensive adult education programs using television to date. Examples of educative
programs were presented using the classification scheme developed for this study. The focus here was again on Canadian programs although some from the U.S. networks were also discussed because the pervasive nature of U.S. television makes these programs available to most Canadian viewers. To indicate the degree and proportion of educative programs available to viewers, a section was devoted to providing descriptive statistical data to show the number of programs available, their proportion when compared to the entire bill of fare, and the amount of program time devoted to educative programming.

CONCLUSIONS

A number of conclusions might be drawn based on the original questions under investigation as well as some additional issues which have come to light during the course of the analysis.

In this study, an appropriate definition for educational television involves the recognition that for an event or activity to be termed "educational" it must exhibit the qualities of intent, planning and management over the instructional process. The primary focus of the experience must be to facilitate learning, the instruction should be designed in such a way that the content is presented in an appropriate form and there must be some kind of management over the instructional activities.
to ensure that learning is taking place and that the learning is appropriate to the objectives. Based on these precepts then, it was found that under certain circumstances television can fulfill an educational function. This state occurs when TV is used as a way to organize learners, when it is used as the primary source for delivering instruction and when there are opportunities provided for direct and continuous management over the event by an instructional agent. Under these conditions television was found to function as a method of adult education.

The formal definition, created for this study, states that:

Television may be defined as a method of adult education when it is used as a way of organizing adults for a planned, systematic learning experience under the management of an educational agent and providing opportunities for continuous contact between agent and learner to affect the content and management of instruction.

Further analysis revealed that such conditions exist rarely in the field due largely to technological and financial restraints imposed upon the medium. Nevertheless, conditions can exist which allow television to behave as a method of adult education and, in time, it may become more commonplace.

It was found that under normal conditions television does not really satisfy all the requirements of a complete educational experience. Instead, it acts as one means to inform, extend or enrich instruction within another educational method. In this case television plays the part of an education or
instructional device, a part which may be highly significant to the success of the enterprise, but which is not, in itself, a complete educational process. In this role television may be defined as:

an illustrative or extension device capable of distributing information to enrich an instructional event or extending an existing educational method to individuals or groups who might not otherwise participate in an educational event.

When television is used as a device within the instructional setting it exhibits the qualities of intent and planning: the program is created specifically for instructional purposes and the design of its content reflects a concern for presenting material in a way which complements the instruction. For a graphic illustration of the relationship between TV as method and as device see Figure 1.

The ability to be able to create the definitions for this study and observe them relating to existing program areas seems to indicate that there is some basis in adult education theory for stating that under certain circumstances television may be referred to as educational. Certainly at the superficial level ETV exists because both adult educators and laymen believe it to be a legitimate medium. The problem with these global attitudes is that they do not afford the kind of precision necessary to distinguish between television as it is used for educational purposes and television used for
Role Of Television in Adult Education

Figure 1.

EDUCATIONAL TV

METHOD
intent
planning
management

DEVICE
inform
extend
enrich

EDUCATIVE TV

INSTRUCTIVE
NEWS & PUBLIC AFFAIRS
DOCUMENTARIES
INTERVIEW PROGRAMS
DISCUSSION PROGRAMS
PROCESS DEMONSTRATION
CULTURAL PROGRAMS
something else. Much is assumed about the power of television to influence the instructional process even though research into its role in learning and instruction reveals many anomalies which raise serious questions about its effectiveness. What seems fairly certain is that television can be a powerful motivating force and anything which can affect this most important first step in learning is worthy of consideration. It seems that television may also play an important part in gaining and holding a learner's attention, so he may begin the process of learning. Television also has an important part to play in helping a learner to absorb and interpret new information to be learned. It seems fair to say that ETV appears to have a significant part to play as an aid to instruction.

Another important concern of this study was how to handle television programs which did not fit within the strict definition of educational television but which exhibited some of the qualities associated with ETV. To resolve the issue a distinction has been made between educational and educative with the latter term used to describe those kinds of programs which tend to educate. The term educative television refers to:

programs which provide some opportunity for learning to occur but which are not specifically designed for that purpose.

For a graphic illustration of the relationship between educative and educational TV see Figure 1.
Educative programs run the gamut from those which pretend to be educational by providing information which may be presented in a systematic manner but which provide no opportunities for managing the event to those types of programs which concern themselves exclusively with entertainment and make no overt or covert pretense to provide instruction of any kind. In this study seven categories were created to describe different types of content in educative programs: instruction, news and public affairs, documentaries, interview programs, discussion programs, process demonstrations, and cultural programs. The list could be longer, but these categories are used to describe the major content areas in educative programming.

It is probable that viewers watching these types of educative programs do learn something from them. The question, of course, which is largely unanswerable, is how much and to what degree do people learn from educative programs? It is almost impossible to assess. The primary function of these programs is to provide entertainment or information, not education. The information may or may not be presented in a format which demonstrates some consideration for designing instruction and little or no regard is given to provide opportunities or systems for managing the event. Nevertheless, these programs do have a pervasive effect. Many people watch them and are likely influenced by them in one way or the other. The power and
effectiveness of educative programs as unique experiences is not really at issue here. They may be profoundly effective in communicating information. They may also spark ideas or develop awareness in the viewer. They are not, however, educational. They do not, in themselves, instruct and if learning occurs from watching them it does so by chance and not in a systematic way.

There is a place for educative television within the methodology of adult education, not as an integral part of the methodology but as a form associated with it. For example, there is no reason why an instructor cannot use any television program as an illustrative device to provide information or enrichment. When he does so he uses it as a device to enhance the learning, even though the original intent of the producers was not to provide instruction. Use then, can determine status, but it still cannot change the program's position from educative to educational. An educational program is produced for the express purpose of contributing to an educational event.

By creating the distinction between educative TV and educational TV and by placing one form of the medium within the conceptual scheme of adult education and the other outside the scheme does not imply that one form should hold higher status than the other, or that one form should be ignored in favour of the other. One is not necessarily better than the other or more important than the other, only different. The distinction
is made so that adult educators and educational broadcasters may recognize the fundamental differences between the intent, the design and the distribution of the two forms. It is more a question of territory than pedagogy. There is a fundamental difference between the two forms and one lends itself more readily to the process of adult education than the other. This is not to say that adult educators should divorce themselves from any concern with educative television. It is important that adult educators understand what this role is and approach its use accordingly. Educative television is locked into its own form. It is content oriented and can really never change. Educational television, on the other hand, begins with the assumption that its form and design will be affected by the intention to assist in the process of education. There is a conscious attempt to promote learning which affects the design of the program and its use. Educative television does not possess this conscious attempt to promote learning. The producer's concern is with the content of his program, how it is shaped to present its message in the most dramatic or expedient manner. If later the content of the program becomes relevant to the content of a particular instructional event it may be used as an illustrative or enrichment device. It did not, however, begin that way and cannot, therefore, exist as an educational program.

The final question to be considered is the role of
CBC television and its contributions to ETV in Canada. As the study has shown the CBC's role in the development of ETV has been marginal. It has undertaken a number of projects on its own and in cooperation with universities and adult education agencies like C.A.A.E. It has, because of constitutional constraints, functioned largely as an advisor providing production and distribution facilities but not the leadership which has been characteristic of some other agencies like the BBC in Britain and the PBS network in the United States.

The CBC cannot really be faulted for its activities in educational television because its mandate to provide education has been limited and overshadowed by its primary role as a national broadcasting agency with a variety of duties to fulfill. It has, however, demonstrated a leadership role in its capacity to produce educative programs. Its tradition of providing information and enrichment programs is really second to none. Its reputation as a producer of non-fiction programs, documentaries, news, and public affairs programs has been long recognized. These kinds of programs certainly contribute to the general enlightenment of Canadian viewers but are really only indirectly related to adult education. The CBC, therefore, may be regarded not as an adult education institution but as a mass media instrument which from time to time contributes to adult education.
IMPLICATIONS FOR FUTURE RESEARCH

It is customary for this section of a dissertation to be devoted to a consideration of general areas for future research. Educational television is a subject which lends itself easily to this kind of global approach because it permeates so much of our lives and affects us in so many ways. The attempt here, however, will be to identify some specific areas worthy of consideration which, perhaps, have not been pursued in great detail before.

Over the past twenty years much valuable research into ETV has been conducted using pre-adult learners. The natural inclination might be to call for more of the same using adult groups, a procedure which might not be in the best interests of adult education. The immense variety of adult learners and the diverse nature of institutions servicing their needs make it difficult to follow a style of investigation which assumes a role for television as a mass education tool. The main focus of ETV research appears to have centred around comparative effectiveness studies to examine the relationship of TV to other forms of instruction. These kinds of studies create a dilemma because they assume that television is, in itself, an instructional process, an assumption which may be fundamentally incorrect.

If we can assume that television plays an important role in certain aspects of the instructional process and little
or no part in others then future studies can be freed to explore those areas which it can affect and ignore the dilemma of attempting to justify the medium as a unique instructional process affecting all phases of learning. To explore ETV's role as a motivator and presenter of information may result in more success and a more reasonable recognition of its usefulness. It is, after all, primarily a communication medium and to restrict studies to examine those features may prove to be more useful in the long term.

More research is needed to examine certain properties of television which make it a useful device for communicating information and experiences. There is really no further need to explore television's fixative and distributive properties except possibly to document new technical innovations as they are developed. It is already an established fact that TV is capable of storing and distributing information with a great degree of efficiency. What is needed are studies to examine those properties which make television an effective communicator. It is the manipulative properties of television which need further study, particularly the effects of internal manipulation on TV's capacity to convey its message.

One route open to researchers is to determine whether or not television and its sister medium, film, actually do possess the qualities of language which affect their ability to communicate. First, such a proposition must be presented
in a way which would be understandable and acceptable to both adult educators and television people. Then the proposition must be tested rigorously. If in fact a language of television does exist then the medium may be in a position to exert a more direct and measurable control over certain parts of the instructional process. Given that communication is the fundamental building block upon which all learning and instruction are built, then mediums like television and film may be found to possess more power than is presently recognized. At the very least, the documentation of such a language may help to show in what ways and to what degree TV affects viewers.

Whether or not television possesses a language of its own or merely acts as a vehicle to deliver language in the form of its content or whether it is a combination of both processes are questions which, when answered, may have a profound effect on future uses of the ETV in adult education. Most studies to date have chosen to concentrate on the content of television programs excluding the possibility that the manipulative property of the medium itself may affect the quality and the amount of communication. Of course the content of television is a critical factor; without it there would obviously be no program and therefore no message to communicate. We must be careful, however, not to become bound by the content. It could be that the properties of television which affect the dissemination of the message exert an influence which is
distinct from the content but equally important to the success of the communication.
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