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INSTRUCTIONAL TELEVISION SYSTEM

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AN INVESTIGATION

OF THE

ST. JAMES -ASSINIBOIA

INSTRUCTIONAL TELEVISION SYSTEM

ΒY

BARBARA LAHAM

A thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

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Abstract

The purpose of this thesis was to study the role of television in education, especially focusing on an unique instructional television system which had been operational in the St. James-Assiniboia School Division No. 2, for the past fifteen years. The study traced the historical development of the St. James ITV Centre, from its inception in 1967 to the present, concluding with two surveys, the first was directed at Junior High School Teachers and the second was administered to Junior High School Principals. The survey population numbered one hundred and thirty-eight (73%) for teachers and eleven (100%) for principals. Survey results indicated a generally positive attitude to the ITV Centre, as indicated by the 70% usage of the ITV by teachers; and by the favorable comments expressed by both teachers and administrators. In general, most teachers had a limited ITV background training and wanted more help in using ITV. wanted more ITV programs directed to their subject areas. Non-users had a variety of reasons for non-use, but many welcomed more help with orientation regarding the ITV system. Principals had a good attitude to the ITV system. They generally viewed the teachers as users and although principals were basically non-users, they perceived that the ITV system greatly enhanced their schools. In conclusion, this ITV Centre is an excellent inter-school network and it should be considered a valuable asset to the St. James-Assiniboia Division No. 2.

CHAPTER I

INTRODUCTION TO THE STUDY

"Failure to communicate has often in the history of man been a classic cause of grief, destruction and disaster "(Educational Screen, November, 1971), for "communication is perhaps 'the' fundamental social process without which, societies would not exist" (Schramm, 1963).

In the beginning, ancient man functioned primarily as a visual creature, communicating at length through pictorial writing, before adopting the more common forms of human speech and language. However, it wasn't until the early 20th century that Thomas Edison "finally satisfied man's ancient urge to put motion into pictorial representations", when he introduced and encouraged motion pictures for educational purposes. Among his philosophies were that "textbooks were obsolete" (Wiman, 1973), and that "the natural way to teach was through the eye" (School Progress, 1972).

Following Edison's most provocative breakthrough of the "talking machine", November 29th, 1877, technology's most conspicuous highlights became a bewildering blur of motion picture, wireless radio, the vacuum tube, television, talkies, the long-play record, frequency modulation, color TV, the tape recorder, cable television, videotape, stereo, satellite transmission, quadrophonics and videodisc. Not only was this communication technology concerned with the storage, retrieval and transmission of information, but it also attempted to extend and amplify man's most fundamental informational processing of ideation, memory and

speech (Winnipeg Free Press, January 19, 1977). In this way, "Man evolved a host of different systems of communication in the modern world, and came to depend more and more upon the technical means of communication" (Cherry, 1968).

A 1966 White Paper on Canadian Broadcasting pointed out that "there is no area of human endeavour that is more affected by the present pace of technological change than the means by which people communicate with each other through electronic devices" (Rosen, 1967). An interesting technological innovation which allowed one "to see at a distance" (Grob, 1964) and which greatly modified film perspective was the medium of television. Although its creators had been cynical about their invention, they recognized television's potential power for electronic communication (Roth, 1982), and its growing acceptance indicated a "strong desire to improve communication or learning process through technology" (Rosen, 1967). In less than three decades, television "assumed a more pervasive role in American society than the combined communication technologies of the three centuries preceding it, and with careful deliberation, television...spawned the consumer society we live in today" (Roth, 1982).

Television first emerged on the educational scene in the 1950's "primarily in closed-circuit form" (Cochran,1973). Though it had been "one of the most controversial of innovations" in education, many educators readily accepted the implications of televised instruction and many began by incorporating television into their educational system (Murphy and Gross, 1966). While critics of educational television argued that the medium had not "lived up to its potential as a diverse national resource for education" (Roth, 1982), authorities such as Marshal

McLuhan emphasized that television belongs in the schools of today.

McLuhan questioned why we continue using "yesterday's techniques to train today's students to live in tomorrow's world" (McLuhan, 1964).

The renowned educator, J. Lloyd Trump (1967) recognized that, in the model school concept, television could not only instruct the masses, but could also provide individualized instruction, for as he had observed "it is the technical devices that produce better teaching and learning".

Richard C. Burke (1971) agreed that television may well be the best solution to updating instruction.

Although educational television developed slowly, it became a significant element in education (Brown, et al, 1972). In fact, the period-mid 50's to mid 60's was labelled "the decade of Educational Television" (Allen, 1971). During the enactment of legislation allocating television channels to education, research also switched dramatically from film to television. Much of these early research results proved worthless, with no clear pattern of accomplishment, and were often characterized by a pre-occupation with evaluative, non-scientific comparisons (Allen, 1971). Often the emphasis was on development rather than research, but predominant findings from hundreds of evaluative studies concluded that instructional television's overall effectiveness was equal when compared with face to face instruction (Allen, 1971; Bright, 1967).

The key for contemporary education was the effective integration of technology with the processes of planning and implementing the entire instructional program (Brown, et al, 1972). Rosen (1967) noted that the successful integration of television into any educational program required considerable awareness of the nature of the medium, its

potential and its deficiencies. Chu and Schramm (1967) observed that the effective use of instructional television in a school system required broad support, including administrative, financial and teacher. Murphy and Gross (1966) stressed that one cannot gauge the impact of TV on education without some knowledge of the technological and organizational apparatus involved.

Thus, a changing society required educational research not only to develop and expand the science of teaching, but also to provide the scientific control and responsible direction for technological innovation (Brown, et al, 1972). However, Allen (1971) noted that research on factors that are external to the direct instructional situation, but which influence the overall impact of the media in the school, haven't really been studied in a systematic way. In a sense, Instructional Television (ITV) is more complex than the research that dealt with it (Chu and Schramm, 1967).

In consideration of the many implications of television in education, and because a unique ITV system, "the only one of its kind in Manitoba" (Winnipeg Tribune, May 21, 1980, p.31), had been introduced in the St. James-Assiniboia Division No. 2 during the late 1960's, it was decided that an investigation of the development and state of this Instructional Television system would provide an excellent topic for study.

Importance of the Study

"The interest in the instructional and educational application of important media, such as television, is great and widespread. An increasing number of countries, developing, as well as developed, have turned to television for the promotion and improvement of the whole system, for in and out of school education. Under such circumstances, the experience gained is of value to the whole

international community, especially in the context of life long education" (Report No. 67, 1973).

"The decision to place one of the most powerful tools of mass communication technique at the service of education, is fraught with problems...but to employ modern communication to help shape an educational society is too great an opportunity for Canadians to miss" (Rosen, 1967). On the national scene, Canada's Federal Government took the big plunge too, as they unanimously joined in the "big spending spree during the television craze" of the 60's (Winnipeg Tribune, April 5, 1975, p. 24). But, when the romance with television had faded, many federal employees grew disillusioned with the medium and decided to abandon it because the cost was too high. Just like an expensive toy, elaborate studio equipment often stood idle, or constantly awaited repairs. Television equipment in the Department of Agriculture was used primarily to record autopsies of farm animals, while often government departments produced tapes mainly geared to staff training. Tapes for public viewing were few and generally of poor quality, and government officials reluctantly acknowledged the existence of a "policy gap on the whole television question (Winnipeg Tribune, April 5, 1975, p.24).

During the mid sixties, Canadian educators also witnessed the introduction of television in the schools. According to Ross (1966), next to man himself, "television is without doubt the best communication device ever developed and it is logical that television should be part of our educational systems". Many Canadian provinces eagerly made the commitment to invest in the electronic TV medium, and often this required substantial funding for the necessary planning, purchasing and installation of equipment. For some, instructional TV became "an

expensive and time consuming undertaking", but for others it represented one of the distinctive teaching and learning tools of instructional technology (Coffelt, 1968).

In a book entitled <u>Educational Television Canada</u>, Rosen (1967) traced Canada's development in educational television. In 1962, very few Canadian school systems had seriously thought about using television in Education. However, by 1964-65, interesting changes took place as Canadians became aware of the tremendous role of Educational TV and were eager to find out more about its development in Canada. By 1965-66, Rosen noted a very rapid expansion of Educational Television in Canada.

The City of St. James joined the educational television bandwagon in 1967-69, with a pilot Instructional Television Project which was initiated under the directorship of Mr. Wayne Warren, a former Geography Teacher in the St. James-Assiniboia School Division No. 2. Its introduction marked the beginning of a new expanding era in Educational Technology in St. James. During the past fifteen years since its inception, the Instructional Television facility has undergone numerous changes in philosophy and development.

Presently located on the second floor of Sturgeon Creek Regional High School, 2665 Ness Avenue, the ITV Centre is not only considered a leader within Manitoba Schools (Boyd, 1976), but it also appears to be one of the better systems across Canada. A formal study of this unique television system set out to achieve the following objectives:

- To be able to offer a historical review of the St. James-Assiniboia ITV Centre for those wanting to introduce television in the schools.
- 2. To be able to offer current information about the St. James-Assiniboia Division No. 2 Schools' ITV Centre.
- 3. To be able to offer recommendations for future development of

the St. James ITV system, so as to improve the quality of instruction and education.

Statement of the Problem

The principle problem of the study was dealt with the St. James Assiniboia Division No. 2 Instructional Television System, in terms of its past development, present state, and potential for future growth. Answers to the following questions were sought:

- 1. Why was the ITV established?
- 2. How was the ITV established?
- 3. How suitable is the ITV's present role in the division?
- 4. How has the ITV been accepted by the educators in St. James?
- 5. How can the ITV system be improved?

Analysis of the Problem

- 1. With respect to why the ITV system was established, the initial needs of the community were examined.
- 2. With respect to how the ITV was established the historical aspects are cited.
- 3. The suitability was determined by investigation of the present role within the division and focused on the degree to which the ITV program was satisfying the presently defined objectives.
- 4. In determining the ITV's acceptance by educators, attitudes of the system's users were measured.
- 5. Recommendations for future improvement were based on findings of the study.

Limitations of the Study

1. Only those schools which were presently hooked up to the Instructional System of the St. James-Assiniboia School Division No. 2 were studied.

Delimitations of the Study

- 1. Only the St. James-Assiniboia School Division No. 2 was included in the survey.
 - 2. Schools to be studied were delimited to Grade 7, 8 and 9.
 - 3. Only teachers and principals were surveyed.

Definition of Terms

Education - A process of imparting new and increasingly complex capabilities to the student. In a total sense, a process of communication (Meierhenry and Wiman, 1969).

Communication Medium - A specific kind of system, audio, visual or motion, which may be used for storage, or transmission of isolated material information (Bretz, 1972).

 $\overline{\text{TV}}$ - Transmission of picture or scenes with sound by electronic methods over considerable distances (Connochie, 1969).

<u>Closed Circuit TV</u> - A system whereby routes of transmission are controlled so that the signal cannot be recieved by outsiders (Haney and Ullmer, 1970).

<u>Coaxial Cable</u> - Special cable containing 2 conductors insulated from each other (Connochie, 1969).

Micro Waves - Ultra High Frequency radio signals transmitted by parabolic reflectors (Connochie, 1969).

<u>2500 MhZ</u> - 2500 Million Hertz System - "Mega Hertz" is the upper part of the micro-wave band reserved for sight-to-sight educational systems, "Hertz" indicates wave frequency, or cycles per second (Connochie, 1969).

Instructional Television Fixed Service - (2500 Mega Hertz band) A hybrid transmission service (compromise between closed circuit and broadcast television) which sends televised lessons. It offers multichannel flexibility and this system requires a special receiving antenna and frequency converter to receive the 2500 MhZ transmitted signal (Burke, 1971).

<u>Information Retrieval System</u> - (IRTV) A television monitored in the classroom for the purpose of on-demand information retrieval (Wahlstrom, October, 1970).

<u>Instructional Television</u>* - Educational television that lends itself to formal direct instruction for achieving course credits (Burke, 1971).

Educational Television* - Generally viewed as enrichment material, but in a broader sense, educational television may encompass both ITV and ETV (Burke, 1971; Rosen, 1967).

<u>Suitabliity</u> - The ability to meet the objectives of the St. James-Assiniboia School Division No. 2.

Acceptability - The measure of users attitude toward ITV.

^{*} It was difficult arriving at a concensus regarding the terms ITV and ETV because various authors presented 'grey areas' of contradictions in this regard. For example, Rosen grouped both ITV (instruction) and ETV (enrichment) under the broad heading of Educational TV (1967), while Burke incorporated the term ETV into the context of Instructional Television (1971). In this thesis, both ETV and ITV were referred to in the broadest sense of definition.

CHAPTER II

THE REVIEW OF LITERATURE

This review of literature examines the various stages of Television's development, from its inception in society, to television's present status within the context of education generally, and in particular in Canada. The views and recommendations of various authorities and critics are included in this study. An analysis of the many surveys, in terms of the child, the home and family, schools, teachers, administrators and various ITV systems have been included to provide indepth bases of comparison for the state of the art television in education.

"Television is neutral; it is neither educational nor instructive; it is a means and not an end. It is simply an instrument that can be used to do certain kinds of educational jobs and the quality and dimensions of these jobs are the primary considerations of educators who are interested in using TV. It cannot of itself perform important educational functions, and it cannot be expected to do so" (Dubin and Hedley, 1969).

"This instrument can teach, it can illuminate; yes, it can inspire. But it can do so only to the extent that humans are determined to use it to those ends. Otherwise, it is merely lights and wires in a box" (Murrow, 1979).

Educational Television

Opulence of educational technology in the classroom has made television "one of the most controversial innovations of our time" (Murphy and Gross, 1966). "In the past, tools of teaching were limited to texts, blackboards, squeaky chalk and talents of teachers" (Kepple, 1965). Today, television has become a significant element in education

(Brown, et al, 1972). According to Rosen (1967), its growing acceptance indicates a strong desire to improve communications or learning through technology. In fact, television is "so much a part of our own and our students' everyday lives that it simply cannot be ignored" (Morrison, 1969).

ITV Authorities

Many authorities state that ITV has become one of the distinctive teaching and learning tools within the domain of education, offering both teachers and students new opportunities to share experiences (Coffelt, 1968; Connochie, 1969; Ross, 1966). "The medium of TV has tremendous power through its ability to transmit ideas and information in a form which commands attention" (Miller, 1970). In the classroom, television can be fast, immediate and frequently it can be used to clarify ideas, by thoroughly and precisely going through a teaching situation (Raecke, 1971). It can incorporate most other types of media, overcome space and time relationships, magnify demonstrations and generally stimulate rapid learning to occur (Ross, 1966; Raecke, 1971; Haney and Ullmer, 1970). Raecke contends that "by using television within education, we can extend specialized instruction to classrooms when it would not otherwise be possible".

Murphy and Gross (1966) point out that the limitations on the use of television in education are due, not to the medium itself but to a lack of imaginative boldness in the people using it. Though extensively investigated, Murphy and Gross indicate that few educators have actually used this new technology to help bring about a basic change in instruction. Under pressure educators have tended to overwork television, concentrating unduly on its promise of economy and in so

doing, have by-passed quality. Although ITV's educational values have been witnessed in many specialty areas such as medicine, dentistry and languages, Murphy and Gross note that TV machinery has become commonplace, taken for granted, used as an extension of practices, and has generally lost its excitement. They stress that "by magnifying and extending mediocrity TV may actually lower instructional quality instead of raising it".

Some criticize that television still suffers from the "talking face" reputation gained during its infancy (Coffelt, 1968), and that far too much ITV transmits no more than a fuzzy image of a teacher, teaching in a traditional way, using the traditional and impoverished resources of the classroom. However, the medium should not be blamed for magnifying the basic flaws in instructional procedures, for it has just served to display uninspired teaching (Murphy and Gross, 1966). Dubin and Hedley (1969) warn that "when television instruction tries to be like face to face instruction, it succeeds in being only a poor substitute".

Connochie (1969) however, believes that "as the novelty of TV wears off in our daily lives, educational television will become a part of education, and not simply a form of television".

In an article entitled, Validation Methods for Instructional Television, Wilkinson (1972) reported on a presentation by Dr. Cavert. At this workshop, Cavert warned that attempts to improve television through "greater capacity" and "increased production competencies" often result in "television's adherence to its hardware-bound traditions of enrichment established in the last decade". If television is used in addition to the blackboard and textbook syndrome, little is going to be gained from the educational system. In fact Dr. Cavert suggests that as

long as the experts focus in on "what TV can't do, then television will be relegated to the periphery of instruction". Bretz (1972) points out that only when television is introduced into an educational system to replace certain traditional elements, will it have qualitative advantages over what has been done before.

TV and Society. With television service almost thirty years old, "few technological innovations have become such an important part of the lives of so many people so quickly" (Education Manitoba, February, 1980). "Television has changed our senses, our lives and our mental processes" (McLuhan, 1964). It is a part of our homes and particularly a part of our children's lives day after day (Frank, 1969). Television has become an integral part of the ecology (Looney, 1971). Our children have grown up in a media rich environment and, for them, "television is the most persuasive, credibly consumed and adored medium" (Greenberg, 1973). It is a common fun box which allows children to choose the channels (Breitenfeld, 1967). But, how do our children relate to the television medium?

TV and Children. Christensen (1967) found that children exposed to the medium liked TV, were fascinated by it; had easy access to it; perceived it as a normal part of living and as a source of recreation. They tended to treat television with the respect and devotion of a third parent.

Garry and Witty observed that TV liking starts early (1967). Both found that, at the age of two, children were already conscious of TV, but by three, one-third of these children made regular use of television. Garry stressed that television's impact on these children particularly

affected areas of knowledge, concepts and attitudes.

In a survey of 726 British children, Greenberg (1973) listed these six reasons for watching TV: arousal, relaxation, habit to forget, to learn, or to pass time. He observed that children used the medium to satisfy certain needs and he concluded that children came away from the medium with certain gratifications.

TV Statistics. Statistically, American television was outstanding during the period 1950 to 1960, for at that time Condry (1971) noted that 90% of American homes were equipped with TV. By 1980, the Nielson Report on television viewing found that nearly all American households (98%) owned a TV set; that most owned a color set (83%); and that daily usage of television had increased by 13 minutes from the previous year, to 6 hours, 23 minutes (Winnipeg Free Press, May 8, 1980, p.41).

Canadian statistics for 1979 indicated that 97% of Canadian households were equipped with TV sets and that almost 50% of them were connected to a cable system which provided them with additional program choices. Considering such statistics, Mirabelli (1979) suggested maybe we are "trading our daily calander for our TV Schedule".

Statistics directed at children revealed that 90% of American children were TV viewers (Schramm, 1976): that 40% of their leisure time was spent viewing TV (Schramm, 1976); that the average child viewed television 30 hours per week (Manitoba Journal, February, 1980); had seen 20,000 commercials per year (Winnipeg Free Press, December 29, 1979); and that by age 16 had probably watched 10,000 hours of TV (Schramm, 1976). Bishop (1980) concluded that "by the time today's children reach adulthood, they will have spent more time watching television than engaging in any other activity, except sleeping".

ITV and Schools

Head of Instructional Media with the Provincial Department of Education, Joan McLaren recommended that "television should be dealt with in the schools". Chu and Schramm (1967) stressed that television must be built into the learning context and managed by the classroom teacher, for "both the interest and the experience of the classroom teacher influence learning". However, Mortin (1974) reported that "technology and education are colliding in a messy environment instead of working together".

ITV and Teachers

Although there has been definite acceptance of television in our society as an educational tool, television is still questioned by the educators. For instance, some studies have shown that television had been a factor in changing the teacher's world, for it could raise or lower the status of teachers (Vento, 1971). In fact, "instructional TV had seldom, if ever, come into use without some resistance from teachers because it's basically threatening" (Chu and Schramm, 1967). The 1967 Carnegie Commission on Educational Television reported that "television frequently made evident the shortcomings of teachers by exposing them to the scrutiny of their peers, their supervisors and the public" (Burke, 1971). Some teachers perceived that their classroom autonomy was challenged when televised lessons were incorporated into the educational system (Richardson, 1967). "Many teachers were overwhelmed by the physical difficulties involved in using Educational television" (Morrison, 1969).

Television could be considered either "an ally or a rival" to the

classroom teacher, but the answer was to find ways of utilizing TV along side the teacher for best results (Haney and Ullmer, 1970). Above all, educators must use the resources of technology in schools to release teachers for more human tasks (Winnipeg Tribune, September, 27, 1974, p. 4).

ITV and Children

Understandably, television has had tremendous influence on the youth of today, but Jennings(1971) observed that this vital force was not always being used in the best interests of children. Sargent (1971) identified parents, schools, and television as three forces which shaped and influenced the thinking of children, but Sargent found that only television was not responsible for its action. She noted that although television directly influenced children, the networks were not set up to educate children because TV was still an industry designed to sell products.

ITV and Education

Critics agreed that there was a need to educate children early about television viewing in their formative years. "Children must understand the construction of false reality and they must acquire the technique for critical viewing" (Roth, 1982). McCance, a former Supervisor of School Broadcasts for Manitoba, observed that in Manitoba Schools, very little has been done about how to look at TV critically and analytically. She said that "students understand the techniques of television, but not how to look at it" (Winnipeg Tribune, September 27, 1974). To Professor Dennis Hlynka, Educational Technology Department, University of Manitoba, this was appalling. "Most of us approach TV as illiterates. It's such an

important tool in our homes. It's the number one entertainment tool and yet it's as if it doesn't exist" (Winnipeg Free Press, July 31, 1982). If television is an "ideal conveyor of information and an important educational tool", then education must accept the significance of television in the lives of today's students and learn to explore the medium more fully in teaching (Rosen, 1967).

ITV Development in Schools

During the last thirty years, considerable time and resources have been spent trying to adapt the medium of television to education. Chu and Schramm (1967) reported that a "high incidence of school systems... typically muddled into television without adequate planning". In these cases, it was observed that instructional television was introduced without full consideration of such factors as: need, availability and alternatives. Often too little attention was paid to "technical adequacy and set maintenance", once the hardware was operational. Basically, ITV systems were "under-used, had unused technical capacity, and generally both users and programs" were limited.

On the other hand, a large number of mature educational television systems had developed. Ross (1966) observed that some centers operated very sophisticated and professional systems, while others moved through "various stages of development". Ross found that television usage in education ranged "from a single camera and receiver", to systems that produced programs which were equal in quality to that of commercial telecasting stations.

ITV Surveys

Educational TV. Countless surveys (Vail, 1974; TV Council, Austin,

1973; Chu and Schramm, 1967), indicated that television had generally gained public acceptance but the "greatest noted growth in television" usage was cited by Roper, Elmo and Associates (1973), in the area of educational television. Their study revealed that a cross-section of national population findings from June 1959 to March 1973 recorded a marked increase (from 43% to 225%) in the area of educational television.

Eric Reports. Seibert (1973) made a study of several hundred Eric reports regarding instructional television. Similar to Chu and Schramm's observations, Seibert found that early television projects were "mediocre and that time or money was limited". When these ventures succeeded Seibert noted that "almost no one cared, but if they failed, no one cared". However, Seibert's study of later trends revealed a bright future and a "sense of the increasing significance of instructional television".

Recommendations

Contrary to Seibert's rosy predictions for educational TV, Knowles (1971) found that the Scarborough Board of Education was discontinuing funding of educational television without full consideration of research evidence. Knowles indicated that the board's criticisms were based on impatience, and "educational hear-say", instead of scientific evaluation, and he stated that the biggest challenge was that of re-educating teachers and educators in the value of instructional technology. He recommended "more efficient and economical use of resources in a co-operative approach to television".

Steele, Executive Director of Joint Council for American Television, observed that television "could not be carried to its maximum

effectiveness by stereo-typed thinking or by stereo-typed men". Steele stressed that acceptability applied to administrators too. This level had to be well convinced of the usefulness of ITV before television could be successful. Chu and Schramm (1967) also observed that strong administrative support "from the top" was required in order to achieve a strong ITV base in the school system.

In analyzing the development and state of ETV in Canada 1966, Rosen (1967) recommended that the ETV planners "avoid being trapped by the glamour of television". He said that "all too often schools will develop a replica of a small commercial TV studio...rather than a system specifically designed for their needs". Rosen also stressed cautious decision making regarding ETV and emphasized careful selection of advisors, because he reported that there were very few Canadians "who were qualified" to advise.

A report entitled Suggestions from META, 1969, published a survey of Metro Toronto's school ETV utilization. Despite efforts to develop this area of instruction, the survey indicated that many factors influenced the low TV utilization as a communications medium in the educational context. At this time they recommended an advisory group to investigate new techniques for integrating television with learning, and also encouraged re-education of teachers regarding this medium.

A later article, Community Television new plan of META, January, 1971, described a plan to restructure their organization. Based on the premise that the days of the television studio <u>per se</u> were numbered, this group set up new objectives. They chose to operate as a community television service, and, in the process, selected to withdraw vital television services from the schools by limiting their school TV programs.

Recognizing that the META had underestimated the importance of television in every students' life, this article recommended that Toronto school boards immediately plan for television program in the schools.

In seeking to ascertain television facilities and frequency of equipment usage in the Borough of York, Toronto, Sussman (1973) surveyed the educational television facilities with respect to the teachers' and administrators'attitudes. Sussman's findings confirmed the results of nine previous research studies, which had been conducted in the Toronto and United States areas from 1967-68, to 1972. Data conclusively indicated low overall utilization of the television medium in the schools.

Smith and Cooper (1974), conducted an evaluation of instructional television in the Public Schools, Washington, D.C., to determine the extent to which the ITV program was being used. Earlier research had indicated a considerable interest among principals and teachers within the division. Through a system of teacher questionnaires, interviews and administrative evaluative forms, the researchers found that many teachers had positive views of ITV as a vehicle for evaluation and improvement of teaching. The researchers found that the only factor hampering ITV usage was the teacher-administrator communication. Positive results of this study indicated that ITV could survive given the right environment.

Although Smith and Cooper's study proved relatively successful, the National Center for Educational Statistics (1973) published, Basic Statistics on Instructional Television, for Washington, D.C., 1970. These statistics indicated that 57% of the schools in the area had

television and, of these, more than 70% made use of the Educational Television facilities. They found, however, that 21% of the rural schools did not have television. On the average, there were two television sets per school and this definitely limited the simultaneous use of television by different classes.

Wardwell's (1975) study on the effects of a trained television communicator on university undergraduates who were enrolled in an instructional television course, found that there was no difference between students who had a trained versus an untrained television communicator. Wardwell cited eight major studies of ITV in relation to conventional instruction. Wardwell concluded that successful instructional television required the ingredient of "inspired teaching" and he suggested that learning can be an enjoyable, entertaining experience.

An interesting teacher questionnaire, by Sullivan and Moore (1972), in the Kansas State area, determined the extent to which teachers and students used this media. Results indicated that teachers used electronic non-print media less widely and less frequently than print media, although their students' use of electronic visual media was more frequent. This study was able to relate the extent of media to many other factors such as: course work, academic degrees, years of teaching experience, grade and subject level. The investigators recommended preservice and inservice training for teachers.

IRTV

Another experimental possibility for television in education took the form of the Information Retrieval Television System. By using the television monitors in the classroom, on-demand information retrieval provided instant programs from an IRTV tape distribution centre or library. Wahlstrom (1970) described the IRTV project established in the Ottawa area, but noted that a source of documented catalogue reference for teachers was needed to make this project more efficient. Basically this project was operated from a central library by librarians who frequently visited schools to assist teachers in using the IRTV system.

Abbey (1971) prepared a follow-up article on this system. He reported that classrooms contained TV monitors, a direct telephone line to a central library, and that there was an abundance of films and videotapes (2500) available. Another article regarding the Ottawa IRTV Project (1971) reported that 90% of the parents favored the system; that students reported watching television in their classrooms at least once a day; that teachers reported that they felt inadequate and that they wanted more training in this regard. However, the majority wanted this IRTV system to remain operational.

OSSEO-ITV

In gathering material for review of Instructional Television systems, correspondence with Mr. Shragg of the OSSEO Area School in Minnesota (1976) provided some basis of comparison. This department was pioneered by Mr. Shragg, in 1960, and as Coordinator of Instructional Media, Mr. Shragg had generously provided material on such things as historical development, funding problems, equipment, acceptance and future plans. Mr. Shragg's enthusiasm was evident when he expressed, "I can't understand teachers not using these great things we've produced ...not gobbling them up...I want a 100% usage".

Summary

During the thirty years that television has been a part of the educational community, countless studies of the medium, concerning such factors as the child, home, school, student, teacher and administrator have suggested that television has occupied an important place in our lives and society, both at home and in school. Results of research have often demonstrated that "under proper conditions, students can learn as well or better in a number of different subjects by ITV as by traditional class methods" (Sussman, 1973).

Although some educators have not recognized television's potential as one of the best communication tools available, evidence has indicated that several school systems have made an effort to initiate television into the educational context of their schools. It is important to recognize the value of television in education, for when we "begin to look upon technology as a resource for developing new and more effective alternatives, rather than a malevolent mechanical intruder, then the wealth of technological development will begin to have the desired effects upon the educational scene" (Knowles, 1971).

CHAPTER III

DESIGN OF STUDY

Success or failure of Instructional Television in the schools was often found to be directly influenced by the needs of the community, by the people who use it and by their method of application. In the study of the St. James-Assiniboia Instructional TV Centre, the following techniques were employed to deal with each question.

Establishment of the ITV Centre

In attempting to establish why the ITV system was developed, information was obtained from the ITV Centre's files, and through personal interviews with ITV Co-ordinator, Mr. Wayne Warren, who pioneered the field of ITV development in St. James-Assiniboia School Division No. 2. Answers were sought to the following questions:

- 1. When and where did this idea originate?
- 2. Who was the originator of this idea?
- 3. Why was there a need?
- 4. How was the idea implemented?
- 5. How was the idea presented?
- 6. What was the initial reaction of the administrators?
- 7. How was funding allocated?

History of the ITV system was used to answer question one and will be in the first section of Chapter IV.

Development of the ITV Centre

In tracing the historical development of the ITV centre information was collected from the literature and personal interviews with Mr. Wayne Warren, Co-ordinator of the ITV Centre. The following questions were considered:

- 1. How was ITV introduced in the division?
- 2. How was it initiated into a workable operation?
- 3. What were some of the difficulties experienced in the early stages of development?
- 4. What were the later stages of development?

History of the ITV centre was used to answer question two and will be in the second section of Chapter IV.

Suitability of ITV Centre

Data for the suitability of the ITV system was arrived at in two stages.

Stage one. The present objectives of the ITV system were established through a review of ITV's development as related in the literature, and through interviews with the ITV Centre's Co-ordinator, Mr. Wayne Warren. This information formed the third section of Chapter IV.

<u>Stage two</u>. Two questionnaires were designed to measure the users' opinion of the system, in order to determine the degree to which their present objectives were being met.

Teacher Survey Instrument

The first questionnaire was administered to all Junior High School Teachers in St. James-Assiniboia Division No. 2. (Appendix A3).

Three basic questions were presented to all teachers. These included: major subject area, sex and the number of years of teaching experience. The balance of the questionnaire was divided into three main areas.

Part a. Questions were related to television training and orientation workshops. This section also established whether teachers were users or non-users of the ITV system during the past two years.

Part b. Questions in this group were directed to non-users only. In determining whether in-class assistance was a factor for using ITV, the measurement instrument took the form of a Likert type response. Non-users also indicated reasons for non-usage and their personal comments or concerns completed part b. of survey.

Part c. This section was designed for the 'Users' only and centered around such elements as the degree of teacher ITV usage during the school year 1979-80. Other areas of concern were: grades in which ITV was most or least frequently used, ITV usage with regard to classroom lessons(main, part, supplement or combination; and basic problems related to review and/or discussion). Teachers responded to questions concerning their role in the acquisition of new ITV materials and user's interest in ITV production. Teachers' perception of students' acceptance of ITV lessons was measured by a Likert Scale response, and this survey concluded with teachers' comments and concerns. This teacher survey material formed the fourth section of Chapter IV.

Principal Survey Instrument

The second questionnaire was designed for Administrators, and the sample included eleven Junior High School Principals (Appendix B2).

General questions included the date and number of teachers in the school. In addition, there were five more questions directed to principals. The first of these established the number of television sets, both color, and black and white. Questions two, three and four employed the Likert type response to measure principals' viewpoints. The second question identified the principal's perception of teachers' ITV usage within the school. The third question revealed the principal's viewpoint concerning the utilization and effect of the ITV system in the school's educational progress. The fourth question assessed the use of the ITV system by administrative personnel. The last question dealt with administrative comments and concerns. This survey material formed the last section of Chapter IV.

Acceptability of the ITV Centre

The acceptability of the ITV Centre was first interpreted through a historical analytical review of the ITV Centre. This was followed by interpretation of the teacher and administrator questionnaires. These results served to indicate the degree to which the ITV system was being used in the St. James-Assiniboia Division No. 2.

Future Role of the ITV Centre

Future possibilities and suggestions for improving the ITV system were based on findings in the literature, comparisons with other systems and teacher and administrator attitudes and comments, as revealed in this study.

CHAPTER IV

SECTION I

Establishment of the ITV Centre

In establishing why the ITV system was developed, information was obtained from the ITV Centre's files, and through personal interviews with ITV Co-ordinator, Mr. Wayne Warren, who pioneered the field of ITV development in St. James-Assiniboia School Division No. 2.

The original idea for ITV "popped into mind", after two men. Mr. Wayne Warren and Mr. George Krahn had attended a nation-wide conferance in Winnipeg, the spring of 1967. Following this, both men submitted a proposal to the St. James-Assiniboia School Board, to initiate a pilot project in educational television.

The initial motivation for this proposal was based on two existing problems: "extremely crowded environment and high class load".

Before 1967, Silver Heights Collegiate had a student population of 1400, and a staff of fifty. This meant 50 minute class periods, six hour teaching days, and very high student enrollment.

It was believed that by recording the basic presentation on video, a lesson could be presented to one or more classes, by other teachers, one or more times. For example, if the video recording apparatus was available to one department, in one school, and if the teachers in that department were willing to work in cooperation, they would be able to store lessons on video tape in the Social Studies Department, or more specifically in the Geography Department of Silver Heights Collegiate.

At a meeting with a St. James research committee, both men explained the motivation behind their request. A good deal of credit for explanation to the Board of Education went to Mr. Ron MacIntosh, then Director of St. James-Assiniboia, who understood the technical requirements and potential advantages of television for instructional purposes.

The board agreed there was merit in conducting a program of this sort, and in the fall of 1967, the Board approved initial expenditure of approxiamately \$10,000, to provide the basics of production and distribution of television programs in one school.

SECTION II

Development of the ITV Centre

In tracing the historical development of the ITV Centre information was collected from the literature and from personal interviews with Mr. Wayne Warren, Co-ordinator of the ITV Centre.

In the fall of 1967, the board approved initial expenditure of approximately \$10,000. That money, was used to purchase a black and white video camera, a black and white Sony one-inch Helical VTR, a microphone, and the video and audio distribution equipment required to carry programs from Wayne Warren's home room to six other rooms in Silver Heights Collegiate, via cable (closed-circuit television).

"With much co-operation and a lot of after-hours effort, a number of primitive TV programs were produced on a co-operative basis, and shared by teachers concerned" (Boyd 1967).

According to Wayne Warren some of the difficulties experienced in

the early stages of development were:

- 1. the operation was the responsibility of teachers busy with many many other duties
- 2. equipment was operated from within a crowded classroom

3. space for 'studio' productions was not available

- 4. only a few privileged teachers had access to the programs
- 5. certain necessary additional hardware and software were not available to 'Flesh out' the service to the teachers (Gayfer, 1970).

After two complete years of operation at Silver Heights Collegiate, it was decided to review the philosophy of educational television. It was agreed by everyone involved that a complete reorganization was required in order to more efficiently use the existing equipment. At that time the teachers of Silver Heights Collegiate felt that they could share information with colleagues in other schools.

In the spring of 1969, another proposal was made to the School Board. It was recommended that the equipment housed in Silver Heights Collegiate be moved to a central location in the school division. The School Board approved expansion of its television service to other schools.

Expanding the ITV system outside a single school created problems. The alternatives narrowed down to some form of distribution to link six high schools in the Division. The choice was either the coaxial cable system or installation of an ITV Fixed Service 2500 Mega Hertz microwave system(ITFS). Great effort was expended in getting meaningful estimates of cost comparisons. Ultimately, all such cable had to be under the control of the Manitoba Telephone System which would not cooperate directly with the school division.

Finally, the decision was made to install a low power, closed circuit, one channel microwave transmitter at 3195 Portage Avenue,

December, 1969. According to Mr. Warren, this choice was made because of the following factors:

"-relative ease of licensing

-privacy of the system and local control of its application

-ease of relocation

-experienced users elsewhere in Canada

-multi-channel capacity(option to lease 3 adjacent channels), with 8 more available to other certified institutions in the Metro Winnipeg area

-easy merger with any other system that may develop in adjacent divisions

-relatively small cost per student, to date (fall 1970) \$3.50 (total: \$62,000)" (Gayfer,1970).

Ten classrooms in each of six high schools were wired to receive super high frequency signals from the ITV Centre, a total of 60 classrooms were wired to one Centre. The divisions' ITV station, CJS-449, made its first transmission in early January, 1970. The low-power micro-wave transmitter yielded very satisfactory television signals to each reciever site. Even the furthest school, which was about 4.5 miles away, had good reception.

After two years of operation, the ITV service outgrew the available space at Portage and School Road, and moved to Sturgeon Creek Regional High School, 2665 Ness (Boyd,1976). By 1976, the ITV Centre occupied 1800 square feet on the second floor, consisting of several rooms: control room, repair shop, office and transmitter room. Staff consisted of a full time Co-ordinator, operator, technician and half-time secretary. There were three micro-wave transmitters, and a total of 18 Junior High and Senior High Schools, (650 classrooms) wired to receive micro-wave telecasts, from an approximately 1000 tape library.

From December, 1967 to February, 1977, the Centre had accumulated equipment valued at a quarter million dollars. By June, 1980, the ITV

Centre was operating 5 channels. The designation of these channels were:

- Channel 2 for internal cable to Sturgeon Creek only

- Channel 4 cable presently operating for Sturgeon Creek

- Channel 8 micro-wave link Channel Cl feeding 18 schools at present

- Channel 10 micro-wave link Channel C2 feeding 18 schools

- Channel 12 micro-wave link Channel C3 feeding 18 schools
- Channel 13 micro-wave link Channel C4 which was installed in Spring of 1980, would be available to the ITV Centre after June 1981.

The ITV now offered:

- service to over half of the schools, students and teachers

- maximum of 40 hours daily programming capabilities

- 1100 taped program library

- direct telephone booking line from outside the ITV Centre
- catalogue condensed to a handy ITV index of programs arranged for teachers (600 indexes were printed and distributed in 79/80).

In addition to the basic operation, the ITV Centre had a black and white TV production studio, reserved for selective live studio programs. Other services included the availability of two sets of portable TV recording equipment, for use in the schools, and instruction in the operation of TV equipment.

This ITV service reflected a cost of \$5 to \$6 per student in the school division during school year 1979/80.

SECTION III

Suitability of the ITV Centre

In analyzing the ITV's present role in the division, a review of ITV's historical development revealed factors which had influenced the Centre's present objective.

In 1967, the St. James-Assiniboia School Division ITV began small scale operation as a closed circuit system, for the purpose of viewing

live presentations in several locations of one school. They were able to tape in-school and off-air programs as required, and they progressed slowly but steadily through the experimental stages, in order to hold costs, and avoid costly mistakes (Wayne Warren, 1977, interview).

By 1979, the ITV system was designed to function on a first-come, first-serve basis, as a type of random-access information-retrieval system. Teachers could call the Centre and request films and video-tapes as required. The basic philosophy of the ITV Centre was to make use of expensive equipment as fully as possible(Wayne Warren, 1977, interview).

By February, 1976, the main function of the Centre was still to provide a library of material which Mr. Wayne Warren referred to as "rapid-transit" ITV service (Contact, 1976).

In February, 1977, Mr. Warren stated that "equipment was being purchased with an Information Retrieval function in mind, rather than for student demonstration purposes". It was very difficult to rationalize \$100,000 for a small class of students. Mr. Warren indicated that classes in television were impractical considering the availability of staff and philosophy of the Centre. He noted too that encounters with students TV training sessions had been unsatisfactory, and the overall experience didn't adequately prepare students for TV careers. The primary objective was to assist teachers by providing an efficient tape library information retrieval, and a more polished service, although a few choice productions were prepared by the Centre (Warren, 1977, interview).

By June 1980, the ITV Centre had improved the substance and

service of program content and quality. Direct telephone bookings and a complete tape library index, provided teachers with better access and better service. Live studio production was still available for the occasional project commitment, but because of the time and cost involved this area generally was the exception to the rule. At this stage the ITV Centre was anticipating involvement in pilot Project Ida a computer-based data 2-way educational television service, which was slated to go into operation by the end of July, 1980 (Warren, interview June, 1980).

SECTION IV

Teacher Survey Results

The teacher questionnaire was administered to all Junior High School Teachers (Grades 7, 8 and 9), in eleven (11) schools in St. James -Assiniboia School Division No. 2, on May 21, 1980. The sample population of one hundred and eighty-nine (189) teachers returned one hundred and thirty-eight or seventy-three percent (73%) of the teachers' questionnaires.

Three basic questions were requested of all teachers. These included: a)Major Subject Area; b) Sex and c)Teaching Experience.

Table (1) gives a breakdown of these teachers according to Subject.

A total of twelve major subject areas yielded 138 responses. The largest group, the Language Arts Teachers, totaled thirty one (31). This was followed by Social Studies, with twenty (20) responses, Science with eighteen (18) and Physical Education with fifteen (15) responses.

Mathematics was fifth with twelve (12) teachers, followed by French and Home Economics teachers each with eight (8). Special Education was represented by seven (7) teachers, Music and Industrial Arts each

Table 1
Analysis of Survey Population by Subject

Subject	N	%
Science	18	13.04
Mathematics	12	8.7
Language Arts	31	22.46
French	8	5.80
Social Studies	20	14.49
Home Economics	8	5.80
Industrial Arts	6	4.35
Physical Education	15	10.87
Guidance	2	1.45
Art	5	3.62
Special Education	7	5.07
Music	6	4.35
Total	138	100

totaled six (6) while the Art group numbered five (5). Guidance, with two (2) teachers completed this group.

Table (2) presents a breakdown of teachers according to Sex, and interestingly in this division, Males dominated Females by slightly more than two to one, (2.12:1).

Table (3) shows the breakdown of teachers according to the number of years Teaching Experience. In this grouping, the largest number of teachers had fifteen years of teaching experience (13). Beyond this point, the number of teachers with more experience declined dramatically as indicated from 20 years and on. Teachers with 21, 22, 23, 24, 25, 26, 33, and 36 years experience, each numbered one. There seemed to be more grouping in the stage from three (3) years to ten (10) years. Of the total number (138) of teachers, (135) one hundred and thirty-five responded, and three (3) chose not to respond.

The next section of the Teacher Survey, Part a. contained questions related to : 1) television training courses, 2) ITV orientation workshops, and 3) ITV usage during the last two years.

Table 4 represented the television training courses' figures for trained and non-trained teachers. A total of one hundred and thirty-five teachers responded to this question, and of these, only twenty-eight (20%) had had previous television training courses. Eight teachers had studied TV, seven had studied AV, and the rest had a variety of ITV, VTR, and Micro Teacher Courses. Eight teachers who took television training courses, did not identify their courses. A total of one hundred and seven (78%) negative responses resulted in a ratio of 3.9: 1 non-trained to trained teachers. Three teachers left this question blank.

Table 2
Analysis of Survey Population by Sex

Sex	N	%
Males	94	68
Females	44	32
Total	138	100

Table 3
Analysis of Survey Population by Teaching Experience

Years		N		o/ /o
1		3		2.17
2	•	4		2.9
3		8		5.8
4		8		5.8
5		8		5.8
6		9		6.52
7		6		4.35
8		7		5.07
9		6		4.35
10		8		5.8
11		5		3.62
12		5		3.62
13		4		2.9
14		8		5.8
15	;	13		9.42
16		9		6.52
17		4		2.9
18		6 .		4.35
19		4		2.9
20		2		1.45
21		1		.72
22		1 .	y ·	. 72
23		1		.72

Table 3 (continued)

Years	N .	%
24	1	.72
25	1	.72
26	1	.72
33	1	.72
36	1	.72
Total	135	100

Table 4
Analysis of Survey By Television Training Courses

Have TV Training Course	N	%
Yes	28	20
No	107	78
Total	135 *	98

^{* 3} people did not respond to this question

One hundred and thirty-eight teachers responded to the question of ITV orientation workshops for teachers. Table 5 indicated that only twenty-four teachers (17%), answered positively, while the remaining one hundred and fourteen (83%) teachers had not participated in any ITV orientation. The yes/no ratio equaled 1:5.

Table 6 identified the ITV users during the past two years. A total of one hundred and thirty six teachers responded, and of these, ninety-seven (70.3%) teachers considered themselves users while 39 (28.3%) teachers identified thenselves as non-users. The ratio of users to non-users was 2.5 : 1.

In a cross-reference of Subject/Sex analysis of survey population, Table 7, indicates that males dominated most subject areas in the Junior High curriculum, with the exception of French, Home Economics, and Art. Male teachers led in the areas of Science (16) and Language Arts (21), while subjects Social Studies (20), Industrial Arts (6) and Guidance (2) were totally male oriented. A greater number of females was noted in the Language Arts program (10), in Home Economics (8) and Physical Education (7).

In a comparison of Subject/Teacher Experience, Table 8, the greatest number of teachers, (13) recorded fifteen years of teaching experience. Generally, teachers below this level, with one to fourteen years experience, totalled eighty-nine (89), while teachers with more teaching experience numbered thirty-three, indicating a steady decrease in teacher number as the experience increased.

At this point of the survey, teachers were requested to fill out Part b of survey if they were non-users, of Part c if they considered themselves users of the ITV system in the last two years.

 $\begin{tabular}{ll} Table 5 \\ Analysis of Survey by Orientation Workshop for ITV \\ \end{tabular}$

Orientation Workshop ITV	N	%
Yes	24	17
No	114	83
Total	138	100

Table 6
Analysis of Survey by ITV Usage In the Past Two Years

ITV Usage	, N	%
Yes	97	70.3
No	39	28.3
Total	136 *	98.6

 $[\]star$ two people did not respond to this question

Table 7
Analysis of Total Population Survey by Subject/Sex

Subject	Total N Subject Response	Females	%	Males	%
Science	18	2	1.45	16	11.59
Mathematics	12	4	2.9	8	5.80
Language Arts	31	10	7.25	21	15.22
French	8	6	4.35	2	1.45
Social Studies	20			20	14.49
Home Economics	8	8	5.80		
Industrial Arts	6			6	4.35
Physical Education	15	7	5.07	8	5.80
Guidance	2			2	1.45
Art	5	4	2.90	1	.72
Special Education	7	3	2.17	4	2.90
Music	6			6	4.35
Total	138	44	31.88	94	68.12

Table 8

Analysis of Total Population Survey Subject Area Versus Experience

N Years Experience	SC	M	LA	F	SS	HE	IA	PE	G	А	SE	MU *	Total
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 33 36	2 1 2 2 2 2 1	1 1 1 1 1 1 1 1 3	1 1 2 2 4 1 1 1 1 2 3 2 1 1	2 2 1 1	1 1 1 1 1 2 2 3 1	2 1 1 1	1 1 2 1	1 6 1 1 1 2 1	1 1	1 1 1 1	1 1 1 1	1 1 1 1	3 4 8 8 8 9 6 7 6 8 5 5 4 8 13 9 4 6 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	18	12	29	8	20	7	6	15	2	5	7	6	135

^{*} subjects are abbreviated

Table 9 analyzed the survey population of non-users by subject, and of the 138 survey responses, forty-two (42) teachers were identified as non-users of ITV systems. Primarily, teacher non-users were found in subject areas of Music (83%), French (75%), Mathematics (66.7%), Special Education (42%), Art (40%), Home Economics (37.5%), Industrial Art (33.3%), Language Arts (22.6%), Physical Education (20%), and Science (5.6%). Guidance was the only sugject area not represented in this category.

Part b, non-users' survey, dealt with three main questions. The first question established whether non-users' attitude to ITV would change, if more asistance were available to them. The Likert method of response was used on a gradient scale of 1 (no) to 5 (very much so). Table 10 indicated that 26.2% non-users would have a good attitude towards ITV, if they received assistance, while those with a fair attitude to ITV usage represented 23.8%. Conversely, 11.9% showed no interest, in any form of assistance, in using ITV. There were 7.1% non-users with a very good attitude, while 4.8% had an excellent attitude, and welcomed any ITV training assistance available.

Question two established why ITV was not being used by teachers. Table 11 listed eight different categories that could be selected. The most obvious reason for non-use, was that the program was not suited, as indicated by 37% of non-users. Conflict of time was the main reason for 14.8%, while 7.4% felt that TV was not useful and that it limited the curriculum. Thirteen percent felt that ITV was not useful, disturbing, not suited, time consuming and often overlooked.

In summarizing question three, the non-users' comments or concerns, a typical 5 group pattern emerged. The reasons for the non use fell into the following division of time 12%, material 24%, knowledge 12%, attidude 36% and equipment 16%, are shown in Table 12.

Subject	N From Population		N of Non-users	% of Total Non-Users
Science	18	5.6	1	2.4
Mathematics	12	66.7	8	19
Language Arts	31	22.6	7	16.7
French	8	75	6	14.3
Social Studies	20	10	2	4.8
Home Economics	8	37.5	3	7.1
Industrial Arts	6	33.3	2	4.8
Physical Education	on 15	20	3	7.1
Guidance	2			
Art	5	40	2	4.8
Special Education	7	42	3	7.1
Music	6	83	5	11.9
Total	138	30.4	42	100

Table 10

ITV Usage if More Assistance Available

Likert Scale Response	Non-users	% of Total
1	5	11.9
2	10	23.8
3	11	26.2
4	3	7.1
5	2	4.8
no response	11	26.2
Total	42	100

^{1 =} no

^{5 =} very much so

^{2,3,4 =} represent a gradient response

Table 11
Reasons for ITV Non-use

Questi	on Reason	N of Non-users	% of Total Non-users
А	Program not suited	20	37
В	Equipment not available when required	1	1.8
С	No control over programming		
D	TV not considered useful	4	7.4
Ε	Limits or reduces curriculum	4	7.4
F	Conflict of time	8	14.8
G	Difficulty of Booking	3	5.6
Н	Other *	7	13
	No response	7	13
	Total	54	100

*
Other = not useful
no habit
not suited
no time
disturbing

Table 12.
Categories of Non-Users Comments

Subject	A	В	С	D	E	Total Commen	% t Subject
Science	1	1		1		3	12
Mathematic		2	2		1	5	20
Language Arts		2		3		5	20
French	1		1			2	8
Social Studies				1	1	2	8
Home Economics		1		1	1	3	12
Industrial Arts				1	1	2	8
Physical Education				1		1	4
Guidance							
Art							
Special Education							
Music	1			1		2	8
% Total Comment	12	24	12	36	16	- TT / I To - All	100

A = time

B = material

C = knowledge

D = attitude

E = equipment

Table 13 summarized non-users' comments in greater detail, according to the individual subject areas. Generally their comments were negative in nature, although a few felt that ITV had good potential and that it was good for special topics.

The next section, Part c, followed with eight questions directed to ITV users. Teachers were asked to identify how often they had used ITV during the school year 1979-80. Frequency of use was related to subjects in Table 14. Social Studies led subjects with 220 incidents of use, followed by Science with 184, Language Arts 181, and Physical Education with 106 incidents of use. By comparing deviation with average incidents of use, five subjects were found to be in the above category. These were Guidance + 16.2, Social Studies + 2.6, French + 1.7, Science + 1.2 and Mathematics + 0.4. The remaining six subjects were all below average.

Frequency of use was also compared to the factor of sex. In Table 15 the number of males outnumbered females three to one (3:1). This resulted in a greater number of incidents of use for males than females. The average incidents per teacher user was 10.3, while the deviation from the average was + 1.1 for males and - 3.2 for females.

Frequency of use was then compared to Years of Experience in Table 16. No clear pattern emerged. Eight groups ranged above average. Leading the groups were teachers with 23 years experience, followed by 17 years, 16 years, 10, 36, 5, 7 and 3 years.

The second question established the relationship of Subject to Grade most used and least used.

Table 17 indicated that Grade 9 was the Grade most used with 45.7% of the total usage. Grade 8 was next with 28.4%. Of 116 responses, 53 or 45.7% teachers used ITV for Grade 9, 33 or 28.4% used ITV for Grade 8,

Table 13 Non-users' Summary of Comments

Subject	Comments
Science	not needed no time poor material
Mathematics	attempting to find not aquainted with ITV useful, but poor material
Language Arts	limited use negative values no material available poor subject matter
French	teacher screening waiting for manual
Social Studies	questions values/appreciation use 16mm film
Home Economics	good potential do not think of it wrong material used
Industrial Arts	ok for special topics difficult to get sets
Physical Education	limited choice
Gui dance	
Art	not useful out dated
Special Education	
Music	lack of time no TV watching habit in open area-disturbing
Total N of Comments	25

Table 14
Frequency of Use/Subject

Subject	N of Users	(Incidents of Use	Incidents of Use/ Teacher User	Deviation From Average
Science	16	184	11.5	+ 1.2
Mathematics	3	32	10.7	+ 0.4
Language Arts	21	181	8.7	- 1.6
French	2	24	12	+ 1.7
Social Studies	17	220	12.9	+ 2.6
Home Economics	5	24	4.8	- 5.5
Industrial Arts	4	30	7.5	- 2.8
Physical Education	11	106	9.6	- 0.7
Guidance	2	53	26.5	+16.2
Art	3	30	10	- 0.3
Special Education	4	20	5	- 5.3
Music			·	
Total	88	904	119.2	

Average Incidents/Teacher User = $\frac{904}{88}$ = 10.3

Table 15 . Frequency of Use Related to Factor of Sex

	N	Incidents	Incidents/ ^{Teache} User	r Deviation From Average
Male	66	752	11.4	+1.1
Female	22	156	7.1	-3.2
Total	88	908	18.5	

Average Incidents/Teacher User = $\frac{908}{88}$ = 10.3

Table 16
Frequency of Usage/Experience

Years of Experience	Incidents of Use	N	Incidents Teacher Users	Deviations From Average
1	8	2	4	- 6.5
2	11	2	5.5	- 5
3	45	4	11.3	+ 0.8
4	53	6	8.8	- 1.7
5	67	5	13.4	+ 2.9
6	21	4	5.3	- 5.2
7	99	8	12.4	+ 1.9
8	30	. 3	10	- 0.5
9	5	2	2.5	- 8
10	94	6	15.7	+ 5.2
11	44	5	8.8	- 1.7
12	30	3	10	- 0.5
13	19	2	9.5	- 1
14	29	4	7.3	- 3.2
15	91	9	10.1	- 0.4
16	100	6	16.7	+ 6.2
17	57	3	19	+ 8.5
18	31	3	10.3	- 0.2
19	12	3	4	- 6.5
20	1	1	1	- 9.5
21	10	. 1	10	- 0.5
22	1	1	1	- 9.5

Table 16 (continued)
Frequency of Usage/Experience

Years of Experience	Incidents of Use	N	Incidents Teacher Users	Deviations From Average
23	20	1	20	+ 9.5
24				
25				
26	8	1	8	- 2.5
33				
36	15	1	15	+ 4.5
Total	901	86	240.6	

Average Incidents/Teacher Usage = $\frac{901}{86}$ = 10.5

Table 17
Subject Versus Grade Most Used

Subject	N	N Gr. 7	% of Total Subject	N Gr. 8	% of 3 Total Subject	N Gr. 9	% of Total Subject
Science	20	3	2.6	5	4.3	12	10.3
Mathematics	4	1	.9	1	.8	2	1.7
Language Arts	34	8	6.9	7	6	19	16.4
French	2			1	.9	1	.9
Social Studies	19	3	2.6	10	8.6	6	5.2
Home Economics	5			2	1.7	3	2.6
Industrial Arts	5	2	1.7			3	2.6
Physical Education	18	8	6.9	5	4.3	5	4.3
Guidance	2					2	1.7
Art	3	2	1.7	1	.9		
Special Education	3	2	1.7	1	.9		
Band	1	1	1.7				
Total	116	30	25.9	33	28.4	53	45.7

while 36 or 25.9% used ITV for Grade 7.

Table 18 measured which Grade ITV was least used by teachers. Grade 7 was first with 30 or 48.4%, followed by Grade 9 with 20 or 32.2% and Grade 8 with 12 or 19.4%.

This pattern of use suggested that the ITV was most used in Grade 9 and least used in Grade 7.

Question three established how teachers used ITV in the classroom. In Table 19 four different categories were used by teachers for ITV these were as a main lesson, as a part of lesson, as a supplement, or in a combination of all. The majority of teachers, 61 or 56% used ITV to supplement the lesson, while 27, teachers or 24.8% used ITV in a combination of all. There were 14 teachers or 12.8% who used ITV as a part of a lesson, and only 7 or 6.4% used ITV as the main lesson.

Table 20 illustrated ITV usage by male/female comparison. Forty-seven males or 61% and 14 females or 43.8% used ITV as a supplement to the lesson, while 18 or 23.4% males used the ITV in combination.

Table 21 cross checked TV classroom usage with the Grade levels. The majority of teachers used ITV in Grade 7,8 and 9 as a supplement to the lesson. For example, there were 17 teachers or 55% in Grade 7, 19 Teachers or 52.7% in Grade 8 and 33 Teachers or 54.1% in Grade 9 who used ITV as supplement to the lesson. Males dominated females in this section of study.

Table 22 represented lesson usage compared to the number of years of teaching experience. No typical pattern emerged, although there was a grouping of teachers from one to nineteen years experience, who used ITV as a supplement to the lesson. Teachers with one to twelve years experience, used ITV as a combination of the main lesson, as a part lesson

Table 18
Subject Versus Grade Least Used

		· · · · · · · · · · · · · · · · · · ·					
Subject	N	N Gr. 7	% of Total Subject	N Gr. 8	% of Total Subject	N Gr. 9	% of Total Subject
Science	9	8	13			1	1.6
Mathematics	3	1	1.6	1	1.6	1	1.6
Language Arts	10	6 .	9.7	3	4.8	1	1.6
French	1	1	1.6				
Social Studies	14	6	9.7	. 2	3.2	6	9.7
Home Economics	6	3	4.8	2	3.2	1	1.6
Industrial Arts	4	1	1.6	2	3.2	1	1.6
Physical Educatio	n 7	3	4.8			4	6.5
Guidance	2	1	1.6	1	1.6		
Art	4			1	1.6	3	4.8
Special Education	1					1	1.6
Band	1					1	1.6
Total	62	30	48.4	12	19.4	20	32.2

 $\label{thm:continuous} \mbox{Table 19}$ Analysis of Survey by % of ITV Usage Versus Subject

Subject	N.	А	В	С	D
Science	21		14.3	52.4	33.3
Mathematics	4			75	25
Language Arts	27	7.4	7.4	66.7	18.5
French	3		33.7	33.7	33.7
Social Studies	18		5.5	66.7	27.8
Home Economics	6	16.7	50	16.7	16.7
Industrial Arts	4	25		75	
Physical Education	15	20	13.3	53.3	13.3
Guidance	3		66.7	33.3	
Art	3				100
Special Education	4			50	50
Music	1			100	
Total	109	6.4	12.8	56	24.8

A = main lesson

B = part of a lesson

C = supplement to lesson

D = combination of all three

Table 20
Analysis of Survey by % of ITV Usage Versus Sex

	. N	А	В	С	D
Male	77	6.5	9.1	61	23.4
Female	32	6.3	21.8	43.8	28.1
Total	109	6.4	12.8	56	24.8

A = main lesson

B = part of a lesson

C = supplement to lesson

D = combination of all three

 $\label{thm:continuous} \mbox{Table 21}$ Analysis of Survey by % of ITV Usage Versus Grade Level

	N	А	В	С	D
Grade 7	31	6.5	6.5	55	32
Grade 8	36	5.5	13.8	52.7	28
Grade 9	61	8.2	16.4	54.1	21.3
Total	128	7	. 13.3	54	25.7

A = main lesson

B = part of a lesson

C = supplement to lesson

D = combination of all three

Table 22
Analysis of Survey ITV Usage Versus Experience

N Years Experience	А	В	С	D	Total
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 26 33 36	1 1 1 1	2 1 2 1 1 1 1 1 1 2	1 3 4 4 2 3 3 1 4 4 1 2 4 7 4 2 2 3 1	1 3 2 2 4 1 1 2 1 1 2 1	3 2 5 9 8 4 4 6 6 3 3 5 10 7 5 3 3 1 1 2 1 1
Total	7	14	59	26	106
% Total	6.6	13.2	55.7	24.5	100

A = Main Lesson

B = Part of Lesson

C = Supplement to Lesson

D = Combination of All

or as a lesson supplement. One group of seven teachers with fifteen years experience used ITV as a supplement to the lesson.

Table 23 compared the ITV usage in relationship to previous television courses. There were twenty-six teachers who responded positively, and of these, fourteen or 53.8% used ITV as a supplement to the lesson. Six teachers, or 23% used ITV in combination with A, B, and C, four teachers, or 15.4%, used ITV as part of a lesson. The remaining five teachers, or 7.6%, used ITV as the main part of the lesson.

Table 24 established the number of problems experienced by users, in the area of review and or discussion. A total of thirteen users indicated problems in seven subject areas. Language Arts and Social Studies each recorded four problems, while Science, Mathematics, French, Physical Education and Special Education recorded one each. There were 82 negative responses.

Table 25 recorded the nature of problems regarding ITV usage. There were a total of ten comments. These were divided as follows: 3 in Science, 2 in Language Arts, 2 in French, 2 in Social Studies and one in Physical Education.

Table 26 identified the teachers' interest in influencing the acquisition of new ITV material. A total of 69 users indicated that they wanted to be in control of new ITV materials and programs. On the other hand, 25 teachers indicated that they wanted no part of decision making.

Table 27 projected the users' interest in producing television lessons for their students. Ninety-five teachers responded to this question, and of these, 31 responded positively. The largest group, ten teachers, was found in the area of Language Arts. Social Studies had five while Science and Physical Education each had four. Three French teachers responded

Table 23
Analysis of Survey ITV Usage Versus TV Courses

TV Courses	А	% Total	В	% Total	С	% Total	D	% Total	Total
TV	1	3.8	2	7.7	4	15.4	2	7.7	9
Av		,	2	7.7	5	19.2	2	7.7	9
U. of M.	1	3.8			4	15.4	1	3.8	6
ITV							1	3.8	1
VTR									
Micro									
TV # 103					1	3.8			1
Total	2	7.6	4	15.4	14	53.8	6	23	26

Table 24

ITV Problems - Review / Discussion

Subject	N	Yes	%	No	%
Science	16	1	6.3	15	93.7
Mathematics	4	1	25	3	75
anguage Arts	24	4	16.7	20	85.3 ⁻
rench	3	1	33.3	2	66.6
ocial Studies	18	4	22.2	14	77.8
ome Economics	5			5	100
ndustrial Arts	4			4	100
ysical Education	12	1	8.3	11	91.7
idance	2			2	100
t	3			3	100
ecial Education	4	1	25	3	75
usic					
tal	95	13		82	***********

Table 25
Users' Comments-Nature of the Problem/ITV

Subject	Comments
Science	It tends to be too general Size of the screen is limiting factor Good discussions result Not if familiar with film and have provided proper introduction
Language Arts	I use programs that are for French classes Language difficulties-Programs Language Arts Student ability to make notes from presented material
French	Pupils do not have working vocabulary to comprehend Need some time to review-not always possible
Social Studies	Cannot stop them to hold discussions Replay may be difficult, time
Physical Education	You can't stop it and discuss it Question can be forgotten
Total N of comments	10

Table 26 . Aquisition of New ITV Materials & Programs

Yes	%	No	%
16	23.2	1	4
1	1.4	3	12
16	23.2	6	24
1	1.4	2	8
12	17.4	6	24
5	7.2		
4	5.8		
8	11.6	3 .	12
1	1.4	1	4
2	2.9	1	4
2	2.9	2	8
1	1.4		
69	100	25	100
	1 16 1 12 5 4 8 1 2 2	1 1.4 16 23.2 1 1.4 12 17.4 5 7.2 4 5.8 8 11.6 1 1.4 2 2.9 2 2.9 1 1.4	1 1.4 3 16 23.2 6 1 1.4 2 12 17.4 6 5 7.2 4 5.8 8 11.6 3 1 1.4 1 2 2.9 1 2 2.9 2 1 1.4

Table 27
Subject Versus ITV Production

		•	
Subject	N	Yes	No
Science	16	4	12
Mathematics	4	1	3
Language Arts	23	10	13
French	3	3	
Social Studies	17	5	12
Home Economics	5	1	4
Industrial Arts	4	1	3
Physical Education	12	4	8
Guidance	2	1	1
Art	3		3
Special Education	5	1	4
Music	1		1
Total	95	31	64

positively, and the remainder of positive responses represented Home Economics, Mathematics, Industrial Arts, Guidance and Special Education.

Table 28 compared male and female views regarding ITV production.

There were 31 positive responses, and of these, twenty-four were males.

Female positive responses totaled seven. There were 64 negative responses,

44 of these were males and the remaining 20 were females.

Table 29 cross-checked the years of teaching experience versus ITV production. There was no typical pattern established here, but the largest largest positive response came from six people with seven years experience. Teachers with five and fifteen years experience totalled four.

Table 30 compared previous TV training courses with ITV production. Twelve users with previous training were interested in ITV production, while the majority of negative responses, 52, came from those teachers without previous training.

In Table 31 teachers were requested to evaluate the degree of acceptance of ITV by students. A Likert Scale Response was used to measure the degree of acceptance by students. The greatest number of responses, 59, was found to be in the fourth category on the gradient response. This was followed by twenty-four responses in category 3. There were twelve responses in category 5 which represented the fullest degree. Only 2 responses were recorded in category 2, and there were none in column one.

Table 32 contained a summary of eighty-six teacher responses.

Subject by subject, these comments were divided positive, 31, to negative, 55, and represented the views of users regarding St. James-Assiniboia's ITV system. This section concluded the teachers' information survey.

Table 28
Sex Versus ITV Production

Sex	N	Yes	No
Male	68	24	44
Female	27	7	20
Total	95	31	64

Table 29
Experience Versus ITV Production

s Experience	Yes	No	Total
1	1	1	2
1 2 3		2	2
		4	4
4 5 6 7	3	4 2 3 2 3	7
5	4	2	6
6	1	3	4
7	6	2	8
8	1 3	3	4
9	3		4 3 5 5 3 2 5
10		5 3	5
11	2 2 1	3	5
12	2.	1	3
13	1	1	2
14		5	
15	4	6	10
16		. 6	6
17	1	2	3
18	1	2	3 3 3
19		6 2 2 3 1	
20			1
21 22		1	1
22		1	1
23		1	1
26	_	1	1
33	1		1
36		1	1
Total	. 31	61	92

Table 30

Previous TV Course Versus ITV Production

11	23
52	68
63	91
	63

Table 31
Degree Acceptance By Student

Subject	N	1	2	3	4	5*
Science	16			2	13	1
Mathematics	4				3	1
Language Arts	24		1	9	13	1
French	3			1	1	1
Social Studies	18		1	3	13	1
Home Economics	5			1	3	1
Industrial Arts	4			1		3
Physical Education	12			3	8	1
Guidance	2				2	
Art	3			2		· 1
Special Education	5			1	3	1
Music	1			1		
Total	97		2	24	59	12

^{*} Likert Scale Response

^{1 =} not at all

^{5 =} fully

^{2,3,4 =} represent a gradient response

Table 32
Users' Summary of Comments

Subject	+ Coi	mments
Science	good potential valuable used extensively last year very useful tool	screen size new material needed bookings few appropriate programs want new programs more current material limited use outdated material no cataloging system to classify
Mathematics	good programs	poor material outdated sadly lacking in Gr. 9
Language Arts	likes ITV most are good valuable tool useful teaching aid useful	questions values negative response over exposure, boring lack of subjects no material available need more drama not aware of ITV no time no selection non-audio
French	useful aid some good material	could be used more lack of working vocabulary more material needed
Social Studies	useful good for smaller classes likes ITV important to teacher useful tool useful aid	poor material negative response wants current films wants current programs not useful not current length and selection want more programs want new programs
Home Economics	a means to keep current useful aid for teaching	broke down time lost
Industrial Arts	important if available useful teaching aid	

Table 32 (continued)

Users' Summary of Comments

Subject	+	Comments -
Physical Education	useful teaching aid good teaching aid very good useful tool	poor material conflicts with timetable problem wants new current program
Guidance	positive values	wants more programs
Art	useful, but outdated	few programs low level screen size for class
Special Education	valuable teaching tool satisfied	no material available wants to tape own program
Music		no subjects available CBC does not cooperate
Total	+ 31	- 55

SECTION V

Principals' Survey Results

The administrators survey was forwarded to 11 Junior High School Principals in St. James-Assiniboia School Division # 2, on May 21, 1980. All principals responded within a week of the survey, as indicated by two returns dated May 21, three dated May 22, three dated May 26, and one each on May 25, 27, and 28.

Principals were requested to indicate the number of teachers and TV sets per school. Table 33 recorded a total of two hundred and thirty-one teachers in the eleven junior high schools. Table 33 also identified a total of 58 television sets and this averaged 5.3 sets per school. Of these, 43 black and white sets and 15 colored sets, yielded a ratio of 3:1.

The second, third, and fourth questions were structured to project the principals' perception of the ITV system, in relation to teachers, school and administrator. The Likert Scale response was used to gather this information.

In Table 34, principals generally perceived their teachers to be users of the ITV system and rated 3 to 4 on the Likert Scale of 1 to 5. Eight of the eleven principals viewed teachers as having a good to very good attitude toward ITV. Two principals indicated a rating of two, which suggested limited usage of ITV by teachers. Only one administrator ranked teachers a score on one, representing total non-usage.

Table 33

Principals' Survey
Teacher/Television Information

School	N Teachers	N Sets	Color	B & W	
A	26	5	1	4	
В	15	7	1	6	
С	18	4	1	3	
D	20	5		5	
Е	18	6	3	3	
F	30	4	2	2	
G	28	6		6	
Н	22	4	2	2	
I	26	8	4	4	
J	14	4		4	
К	14	5	1	4	
Total	231	58	15	43	

Table 34
Degree of ITV Usage by Teachers

School	1	2	3	4	5*
А			1		
В			1		
С				1	
D			1		
Е			1		
F				1	
G				1	
Н	1				
I		1			
J		1			
K				1	
Total	1	2	4	4	
				•	

^{*} Likert Scale Response

1 = never

5 = extensively

2,3,4, = represent a gradient response

Question three dealt with the degree of ITV's enhancement in the school. Table 35 expressed the principals' views in the form of the Likert Scale response. Most principals expressed very favorable views toward ITV in the schools. Four principals indicated a ranking of three, three principals gave a ranking of four, and one principal awarded a standing of five, which suggested that ITV greatly enhanced the school.

Question four measured the degree of ITV usage by principals, as projected in Table 36. Interestingly, the Likert Scale results shifted dramatically to the lower range of one and two. There were two principals who had never used the ITV system, while six principals recorded a gradient response of two, indicating limited use. Of the three remaining principals only one suggested moderate usage of the ITV system, while two principals ranked four on the Likert scale, reflecting a good command of ITV knowledge.

Table 37 contained a summary of principals' comments. Though four principals chose not to respond, there were a total of seven comments, five positive and two negative. These views completed the principals' survey.

Table 35

Degree of ITV Enhancement in the Schools

School	1	2	3	4	5 [*]	
А		1			The second secon	
В			1			
С		ī			1	
D			1			
Е			1			
F				1		
G				1		
Н	1					
I			1		J.	
J		1				
К				1		
Total	1	2	4	3	1	

^{*} Likert Scale Response

1 = none

5 = greatly

234 = represent a gradient response

Table 36
Degree of ITV Usage by Principal

School	1	2	3	4	5*	
A				1		
В		1				
С			1			
D		1				
Е		1				
F				1		
G		1				
Н	1					
I		1				
J		1				
K	1					
Total	2	6	1	2		······································

^{*} Likert Scale Response

1 = never

5 = frequently

2,3,4, = represent a gradient response

Table 37
Summary of Principals' Comments

School	Comments			
А	A tremendous resource that is not fully utilized	+		
В				
С	A very great aid, especially in Science and Social Studies	+		
D	ITV can be a useful supplement to class instruction	+		
E	Controversial and current events can be brought int			
F	the classroom at the teacher's convenience	+		
G				
Н	White Elephant		_	
I				
J	ITV is used more by some than others. over-all the usage is not that great in our school		_	
К	Programs are very good, but staff would like to see them expanded, especially dramatic performances	+		
otal	:	(5)	(2	

CHAPTER V

ANALYSIS AND INTERPRETATION

Vast amounts of time, energy and money are being spent to explore and adapt television's potential to the needs of education. This work has been supported by government and institutional funds, and now television is firmly established and completely accepted as an integral part of educational institutions around the world (L. W. Ross, 1966).

The purpose of this study was to investigate the St. James-Assiniboia Division #2 Instructional Television System in terms of its past development, present state and potential for future growth. This was accomplished by analysis and interpretation of the literature, personal interviews, and teacher and principal survey results and comments.

The Historical Development

Historical material for this study was obtained through personal interview with ITV co-ordinator Mr. Wayne Warren, and through information collected in the literature. This data formed the first section of Chapter IV, and photographs of this early development are included in Appendix C1.

Historical rationale for the introduction of Educational Television in St. James-Assiniboia came about as a result of community needs, crowded conditions and large student population in Silver Heights Collegiate.

Although a few closed-circuit TV systems, were developed in Winnipeg, in the 1960's, St. James-Assiniboia 's ITV Centre was unique

in Manitoba because it transmitted Educational Television programs to the Division's schools, via the 2500MhZ micro-wave system. As pioneers in the field of micro-wave transmission in St. James, the ITV centre developed slowly and cautiously, so as to avoid costly mistakes. Although lack of expertise was the main concern, Mr. Warren recognized the problems involved with ITV production.

ITV co-ordinator, Mr. W. Shragg experienced similar difficulties in developing the ITV field in Osseo, Minnesota, in the 1960's. Some of the problems were: funding, maintenance of costly equipment, and learning from past mistakes. Mr. Shragg stated that because of local production, lack of trained personnel, facilities and costs, it was difficult to compete with commercially produced materials (correspondence, W. Shragg, 1976).

Contrary to research of Seibert 1973, who had found that early ITV projects were mediocre, and Chu and Schramm 1967, who had observed that school systems typically muddled into television without adequate thought of need, availability or alternatives, Wayne Warren avoided "being trapped by the glamour of television", by developing a system specifically designed for the community needs as suggested by (Rosen, 1967). St. James' ITV development was well planned and well researched.

One of the basic considerations of the development, was the changing needs of the community, which directly influenced the changing philosophy of the ITV centre. At first, the requirements were directed to viewing live presentations, but as the ITV centre developed an information retrieval system, the library service was extended and developed into a "rapid transit" ITV centre providing teachers with an efficient, more polished tape library information retrieval.

In spite of Knowles' (1971) findings, regarding negative attitude and criticisms of the Scarborough Board of Education, one of the most positive factors which influenced the ITV centre's historical development has been the excellent, unwaivering, supportive attitude of the St. James-Assiniboia Division #2 School Board and Board of Trustees. Without their understanding, encouragement, eagerness and financial support, the ITV centre would never have materialized. As Ralph Steel (1956) had observed, television cannot be carried to its maximum effectiveness by stereo-typed thinking or by stereo-typed men.

Present State of ITV Development

William Schramm (1973) warned that

You may have a mental picture of what is the perfect ITV system, but that ideal will always have to be modified according to the hard facts of life, such as budgets, technical and staff facilities. Time, talent and money may be lacking, and in almost every ITV project they represent serious constraints.

Presently, the ITV Centre is located in the Sturgeon Creek Regional High School(appendix C2). Although a few choice 'live' programs are produced in the ITV studio every year, Mr. Warren acknowledged that

As long as I am associated with this program, it is my intention to focus on an Information Retrieval System and to streamline getting a lot of material available for the largest number of viewers at the lowest per program transmitted cost. As long as that is our primary objective...I would be remiss in my duty to invest large sums of money in studio production and studio people (transcript of interview W. Warren, February, 1977)

In the IRTV project, which developed in Ottawa in 1970, Wahlstrom concluded that a source of documented catalogue reference for teachers was needed for more efficient use of programs. This was one of the primary goals of the ITV Centre in St. James, and consequently

Mr. Warren developed a catalogue of all tapes available, complete with a condensed commercial print ITV index for teachers.

In addition to improved program index catalogues, the ITV centre has increased telecasts; has wired additional schools; has a direct telephone booking line to the television centre and has taped eleven hundred TV programs for distribution to the schools, via the ITV centre.

Implications of Teachers' Survey

Two questionnaires were designed to measure the users' opinion of the system, in order to determine the degree to which their present objectives were being met. The teachers' survey was administered to all Junior High School Teachers in St. James-Assiniboia Division #2. The sample response of one hundred and thirty-eight teachers represented seventy-three percent (73) of all the teacher population surveyed.

Proportionately, the males dominated females three to one. The average number of years teaching experience was eleven and the mode was fifteen years teaching experience.

In analyzing the statistics of Part A of the survey, it was evident that the majority (107) have never had any television training courses; that the majority (114) had not participated in any orientation workshops of ITV; and that over (70%) of these teachers were considered users. Thus, the majority of users had no background training or orientation in instructional television.

In interpreting the non-user data it was determined that at least one-third of the total teachers surveyed, were non-users. Of the non-users, twenty-six percent or eleven teachers indicated a

gradient response of three (3), representing a good attitude, while 23.8 % of teachers indicated a fair attitude to ITV. In total, 84 % or twenty-six teachers indicated a response between two to five. Only 16 % or five teachers showed no interest in ITV.

The reasons for non-use varied, but the majority, twenty or 65%, indicated that the programs were not suited to their subject. Major subject areas of non-users were: Mathematics, Language Arts, French and Music. The non-users comments suggested negative attitudes toward the ITV system generally. They also disclosed that lack of material, equipment, time and knowledge were reasons for non-use. A need for more assistance was definitely expressed by the non-users.

Part C was directed towards users, who represented two-thirds or ninety-seven of the total of the teachers surveyed. Those who used ITV averaged 10.3 television lessons per year. Teachers most frequently used ITV at the Grade 9 level, suggesting that ITV material was more suitable at an advanced Junior High level. At the Grade 7 level the basics of content form the core of the subject lesson. This tends to exclude "extra" lessons.

Of those teachers using ITV, the majority, (56%), implied that ITV was a supplement to their lessons, while twenty-seven (24.8%) teachers used ITV for more than one lesson. Fourteen (12.8%) teachers used ITV as part of a lesson, demonstrating that teachers were not relying solely on ITV for their main lesson.

Although the majority of users did not basically experience problems, there were thirteen teachers who admitted to problems in the area of review and discussion. Other problems were related to time and ITV tape control and replay.

Of the total users, seventy-three percent (69) wanted more influence in the acquisition of new ITV material. Of the total users, 33 % or thirty-one teachers expressed an interest in producing television lessons for their students.

All of the teachers felt that ITV lessons were accepted by students. Teachers from every subject area made their comments about ITV. The majority of users (55) or fifty-seven percent, however found problems with the ITV system. Forty-three percent or 31 teachers made very positive comments. The positive comments came from the areas of Social Studies, Science, Language Arts and Physical Education. The negative comments regarding material, technical problems and programs, were directed to the subject area. The data indicates that there is still room for ITV improvement, even among the users.

Implications of Principal's Survey

The administrative questionnaire was forwarded to all eleven Junior High School Principals. In the first question identifying the number of teachers in their schools, a discrepency of teacher count resulted. These figures were influenced by such factors as total count, rather than actual teachers. In other words, teacher aids, librarians, administrators and auxiliary staff were included in the total teacher count. In addition, some principals included total number of teachers for the school, even though elementary teachers were on staff. The figures for the actual Junior High Teachers' count of one hundred and eighty-nine, was obtained by a personal telephone polling of each School Office in the Division, and this figure was used for all data calculations.

The principals indicated a total of fifty-eight television sets in the schools. This represented only one third of the total survey count of teacher population upossibly using ITV at any given time. It should be noted that Wayne Warren had indicated that more than forty telecasts or forty hours of telecasting were possible per day.

The next three questions projected the principals' perception of the ITV system. Principals basically perceived that their teachers were ITV users and that they generally exhibited good attitudes towards ITV. Principals perceived that the school image was generally enhanced by ITV, though they themselves were either non-users or very limited users of the ITV system.

The majority of principals responded favorably to the ITV system.

There was only one administrator throughout the entire principals'
survey who registered a nil score on every rating including the comment of 'white elephant".

SUMMARY

The major findings of the teachers' survey revealed that teachers generally exhibited a positive attitude to the ITV Centre, as indicated by the 70% usage of ITV by teachers at the Junior High level. The teachers' survey population averaged 11.2 years teaching experience outnumbered female teachers 3: 1. Basically teachers had little or no ITV orientation and limited educational ITV background training and/or experience.

Junior High school teachers were non-users for a variety of reasons but generally non-users indicated that they would like more help to understand and use ITV. For the most part, some teachers needed more

help than others regarding ITV usage. Teachers users wanted more ITV and more current programs in all subject areas. The majority wanted more influence in acquisition of ITV materials and at least one-third of all teacher users were interested in producing television lessons for their students, although only one or two TV productions were made per year. The ITV programs were mainly used at the Grade 9 level and least used at the Grade 7 level and TV sets averaged 5.35 per school. As a whole teachers perceived that their students readily accepted TV lessons.

The administrative survey data revealed that principals viewed teachers to be users of the ITV system. Though principals, were personally non-users, they were convinced that ITV greatly enhanced their schools programs. Principals generally voiced favorable comments regarding ITV.

Recommendations

- 1. Public relations regarding the ITV Centre is an important factor to be considered. The St. James-Assiniboia School Division No. 2 has achieved a very impressive ITV Centre, but a Public Relations representative could serve to promote and educate teachers and administrators in the division.
- 2. Teachers must be re-educated and retrained for ITV usage. This could be accomplished by the public relations representative who could design a two section presentation. One section of the presentation could be directed to non-users, while the other presentation could be structured for the teachers who had used ITV before but, were presently non-users.
- 3. Teachers must be encouraged to preview and evaluate ITV

programs.

- 4. A master lesson plan as well as pre and post tests should accompany ITV tapes to encourage ITV as a main part of the lesson.
- 5. The ratio of teacher versus colour television sets should be changed so that more teachers have ITV available to them.
- 6. Workshops conducted by ITV personnel should be directed to both teachers and principals, so that these educational groups can be more supportive of one another. This in turn will foster more positive teacher and administrative communication. At present the ITV Centre does not reach an adequate number of teachers and principals.
- 7. Students should be incorporated in a more active and vital role in the ITV Centre, perhaps to act as assistants in workshops, so that they might learn the responsibilities and duties associated with the operation of the ITV Centre. Now that the ITV Centre's television equipment is outdated, purchase of new equipment may be directed to student usage.

"The primary goal of ITV in the future must be to raise the quality and improve classroom utilization, so as to strengthen the educational system, to make it more responsible to individual and social needs" (Murphy, Gross, 1966).

The ITV Centre successfully weathered the problems of past and present development. Only through active involvement of teachers, administrators and students in the ITV Centre's program can the ITV Centre hope to achieve its maximum potential for future growth.

Suggestions For Future Research

This study has focused on the investigation of the ITV Centre in St. James-Assiniboia Division No. 2. Since the focus of this study has been an overview approach to the system many interesting topics for future research possiblilties have surfaced.

Primarily, there is a need to conduct a replication study and to establish the normality of this system in order to update the survey results. This would not only provide an adequate base of comparison, but would also find more validity to this study's recommendations.

Secondly, an important consideration of this study could include a student evaluation together with the principal/parent/teacher surveys, in order to study the total user population in St. James - Assiniboia. This information would have provided an interesting base of comparison for users' views.

Thirdly, a valuable aspect of this study could include an up to date feasibility study, since this has been the underlying theme throughout the ITV Centre's entire development. Considering the Centre's future re hardware and software, this would make an interesting, independent study.

Lastly, a possibility for future study could focus on the implication of new technology and incorporation into the ITV Centre.



BIBLIOGRAPHY

Periodicals

- Abbey, David S., Information Retrieval Television, Audio, Visual Instructional-Journal Vol. 16, No. 2, February, 1971.
- Allen, William H., Instructional Media Research: Past, Present and Future, A. V. Communication Review, Vol. 19, No. 1, Spring, 1971, p. 5-18.
- Boyd, Ann, Instructional Television Facility, <u>Contact Publication</u>, by the School Board for the St. James-Assiniboia Community, February. 1976, Vol. 2, No. 1, p. 1-3.
- Bright, R. Louise, The Place of Technology in Educational Change, Educational Technology Journal, New Jersey, 1967.
- Brown, James W.: Norberg, Kenneth D.; Srygley, Sara K.; Administrating Educational Media, Instructional Technology of Library Services, McGraw, 1972.
- Cochran, Lee W., In the Beginning It was DVI, <u>Audio Visual Instruction</u> Vol. 18, No. 3, Educational Library, March, 1973.
- Community Television new plan of META, <u>School Progress-Journal</u>, Vol. 40, No. 1, January, 1971.
- Educational Screen and Audio Visual Guide, Vol. 50, No. 11, November, 1971.
- Gayfer, Margaret, ETV ready to take a big leap forward, <u>School Progress</u>, August, 1970.
- Haney, John B.; Ullmen, Eldon J., <u>Educational Media and the Teacher</u>, W., C. Brown Compamy, Publishers, 1970, p. 71-83.
- IRTV Project, School Progress, January, 1971, Vol. 40, No. 1, p. 35.
- Kepple, Francis, The Impact of Education Technology, Education Technology, 1965.
- Knowles, A. F., For the Sake of Argument, <u>School Journal</u>, Vol. 40, No. 2, 1971.
- Mirabelli, Alan, Is TV Destroying the Family?, <u>Perception Journal</u>, The Canadian Council of Social Development, P.P. Ottawa, Ontario November - December, 1979, Vol. 3, No. 2.
- Morrison, Marion, Editorial Comment, Educational Media Journal,

- Vol. 1, No. 5, December, 1969.
- Murrow, Edward R., Two-way TV group set-up, <u>Perception Journal</u>, The Canadian Council of Social Development, P.P., Ottawa, Ontario, November December, 1979, Vol. 3, No. 2.
- Reacke, R. J., Instructional TV and Your School, <u>Educational Screen</u>, Vol. 50, November, 1971, p. 11-13.
- Roth, C., Is Video Dangerous?, <u>Video Magazine</u>, Vol. 6, No. 1, April, 1982.
- School Progress, Brave New World for Media Heralded by Edison in 1912, Vol. 41, No. 6, 1972, p. 46.
- Suggestions from Meta Metro (Toronto) Education TV Association, <u>Education Media</u>, November - December, 1969, Vol. 1, No. 5, 9-25.
- The Impact of Television on Children, Education Manitoba, February, 1980, Vol. 6, No. 6, p.8.
- Wahlstrom, M. W., A Source Document for Information Retrieval, <u>Educational Media</u> - Journal, Vol. 2, No. 5, October, 1970, 3 p.
- Wilkinson, C.E., Validation Methods for Instructional Television, School Progress, Vol. 41, No. 5, May, 1972.
- Wiman, R. V., Edison the Educator, <u>Audio Visual Instruction</u>, Vol, 18, No, 3, p. 44, March, 1973.
- Vail, Walter J., District Wide Closed Circuit Television, <u>Audio Visual Instruction Journal</u>, Vol. 19, No. 5, May, 1974.
- Vento, Carla J., Instructional Strategies for Television and Teacher Competency, Audio Visual Instruction, March, 1971, Vol. 16, No.3.

Newspapers

- Big spending spree during the television craze, Winnipeg Tribune, April, 5, 1975, p. 24.
- Bishop J. K., Television moulding adults of tomorrow, <u>Winnipeg Tribune</u>, July 31, 1980.
- Boyer, Peter J., Those missing minutes, <u>Winnipeg Free Press</u>, May 8, 1980, p. 41.
- McLaren, Joan, TV violence issue raises question of viewing quality, Winnipeg Free Press, July 31, 1982,
- Mortin, Jenni, Teachers urged to use radio, TV., <u>Winnipeg Tribune</u>, September, 27, 1974, p.4.

- St. James-Assiniboia School Division No. 2, Look at the Facts, Winnipeg Tribune, Wednesday, May 21, 1980, p.31.
- U. S. court okays outspoken official, <u>Winnipeg Free Press</u>, December 29. 1979, p.23.
- Where would we be without the talking macnine?, <u>Winnipeg Free Press</u>, January 19, 1977, p. 27.

Eric

- Basic Statistics on Instructional TV and other Technology. Public Schools, Spring, 1970, Published, February, 1973, National Center for Education State, Washington, D.C., Eric, 084776,
- Greenberg, Bradley S., Gratification and Motivations of TV Viewing for British Children, Eric Edo77067, April, 1973.
- Instructional TV Survey, KLRN-TV Ch. 9-197273, Southwest Texas, TV
 Council Austin, 1973, 13 p. EDD78651.
- Roper, Elmo and Association, What People Think of TV and Other Mass Media, Eric, EDD79944.
- Schramm, Wilbur, Quality of Instructional Television, The University Press of Hawaii, Honalulu, 1973, Eric , 079937.
- Seibert, Warren, <u>Instructional Television</u>, <u>The Best of</u>, Eric ED082535, 1973.
- Smith, Barry,: Cooper, M., Instructional Television Program, An Evaluation, District of Columbia, D.C. Model school division, Public Schools, Washington, D.C., 1974, Eric 88475.
- Sullivan, Marjorie,; Moore, Jean, Media Use by Kansas Teachers and Students, Kansas State, Wichita, Kansas, Media Selection, 1972, Eric, 067839.
- Sussman, Suzan T., <u>Utilization of and Teachers' Attitudes Toward</u>
 <u>Educational TV Facilities in Schools of Board of Education for the Borough of York Education</u>, Toronto, June, 1973, Eric, 086211.
- Report No. 67, Department of Mass Communication, Television for Higher Technical Education of Workers: Final report on a Pilot Project, 1973, EDO 77226, p. 23.
- Wardwell, Douglas O., A Study of the Effects of a Trained Television

 Communicator on Undergraduate Attitude and Learning, 1975,

 Eric 134209.

Correspondence

Shragg, William O., OSSEO, Area School in Minnesota in 1960, April 23, 1976, Correspondence.

Personal Interview

- Warren, Wayne, Personal Interview taped transcript of interview, February, 1977.
- Warren, Wayne, Personal Interview taped transcript of interview, June, 1980.

Books

- Bretz, Rudy, <u>A Taxonomy of Communications Media</u>, Rand Corporation Research Study, Educational Technology Publications, Englewood, Cliffs, New Jersey, 1972, 168 p.
- Burke, Richard C., <u>Instructional Television</u>, <u>Indiana University Press</u> 1971, 145 p.
- Cherry, Colin, On Human Communications, (MIT) Press, Massachusetts, Institute of Technology, 1966, 337 p.
- Christensen, Erna, 1967, in Sunderlin, Children and TV.
- Chu, Goldwin C.; Schramm, Wilbur C., <u>Learing From Television: what the research says</u>, Washington Assoc. of Educational Broadcasters, 1967, 116p.
- Coffelt, Kenneth, <u>Basic Design and Utilization of Instructional TV</u>, IMC-U, Austin, Texas, 66p. 1968.
- Condry, 1971, in Children's Television, Sarson, Evelyn, 1971.
- Connochie, T. D. <u>TV for Education and Industry</u>, Mitchel Press Ltd., Vancouver, 1969, 195 p.
- Dubin, Robert,; Hedley, R. A., <u>The Media May Be Related to the Message</u>, University, 1969, 195 p.
- Frank, Josette, <u>Television How to use it wisely with children</u>, 1969, N. Y. Child Study Association of America.
- Garry and Witty, 1967, in Sunderlin, Children and TV.
- Grob, Bernard, <u>Basic Television</u>, McGraw-Hill Book Company, New York, Toronto, London, 1969.

- Jennings, 1971, in Sarson, Children's Television.
- Looney, Gerald, in <u>Action for Children's Television Text</u>, prepared by Evelyn Sarson, <u>September</u>, 1971.
- McLuhan, Herbert Marshall, <u>Understanding Media</u>, McGraw-Hill, New York, 1964, 318 p.
- Meierhenry, WesleyC.; Wiman, Raymond V., Educational Media: Theory into Practise, Columbus, Ohio, Meirell, 1969, 283 p.
- Miller, James D., Educational TV Current Friends, Pergammon of Canada Limited, Toronto, 1970.
- Murphy, Judith,; Gross, Ron, <u>Learning by Television</u>, Georgian Press, New York, 1966, 95 p.
- Richardson, 1967, in Sunderlin, Children and TV.
- Rosen, Earl, Educational Television, Canada, Burns and MacEachern Limited, 1967. 101 p.
- Ross, Lee W., Educational Television, Dome Petroleum Limited, Calgary, Alberta, 1968, 34 p.
- Sargent, 1971, in Sarson, Children's Television.
- Sarson, Evelyn, Action for Children's Television, September, 1971.
- Schramm, Wilbur Lang, <u>The Science of Human Communications</u>, Basic Books Incorporated, New York, 1963, 158 p.
- Sunderlin, Sylvia,; Gray, Nan, Association: Editors, <u>Association for Childhood Educational International Children and TV, Television's Impact</u> on the Child, Bulletin 21-A, Washington, D.C., 64 p. 1967.
- Trump, J., Lloyd, <u>How Excellent are Teaching and Learning in Your School</u>, N.A.S.S.P., 1967.

APPENDICES

Appendix A1

Correspondence to Director of Education

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April 23, 1980.

Mr. G. B. Buchholz,
Director of Education,
St. James-Assiniboia School Division No. 2,
2574 Portage Avenue,
Winnipeg, Manitoba.
R3J 0H8

Dear Mr. Buchholz,

I am presently completing a master's thesis. The research will focus on the role of television in education. Since our school division has a unique Instructional Television System, I would like to include this in my study. In addition, I believe that our ITV is important and worthy of research.

I would very much like your permission to circulate a brief questionnaire to all the junior high schools in our division. This would include the eleven junior high principals and all of the junior high school teachers.

I would be pleased to answer any questions in this regard and especially delighted to share the results of this research with the division. Dr. Ken Slentz is my faculty advisor. I have also discussed this study with my principal, Mr. Don McKinnon.

Enclosed please find relevant materials.

Sincerely yours,

Barbara Laham,

Sansome Junior High School.

Dürbara Laham

Tencts.



G.B. BUCHHOLZ
DIRECTOR OF EDUCATION
AND SECRETARY-TREASURER
H.K. HARDY
MANAGER,
BUSINESS AND FINANCE
L.A. QUILLIAM

MAINT. SUPERVISOR

The St. James-Assiniboia School Division No. 2

BOARD OFFICE - 2574 PORTAGE AVENUE • WINNIPEG • MANITOBA R3J OH8 • PH. 888-7951

May 1, 1980

Mrs. Barbara Laham Sansome Junior High School 181 Sansome Avenue Winnipeg, Manitoba R3K 0N8

Dear Mrs. Laham:

Permission is hereby given for you to circulate a brief questionnaire to the junior high schools in our division regarding the role of television in education.

When your research is complete, please send me a report on the results of your survey and any conclusions that you may reach.

Yours truly,

G.B. Buchholz Errector of Education

GBB/mjd



G.B. BUCHHOLZ
DIRECTOR OF EDUCATION
AND SECRETARY-TREASURER
H.K. HARDY
MANAGER,
BUSINESS AND FINANCE
L.A. QUILLIAM
MAINT. SUPERVISOR

The St. James-Assiniboia School Division No. 2 BOARD OFFICE - 2574 PORTAGE AVENUE * WINNIPEG * MANITOBA R3J OHB * PH. 888-7951

May 1, 1980

Memorandum to: Junior High School Principals

RE: Survey on Role of Television in Education

Mrs. Barbara Laham, a teacher at Sansome Junior High School, has received approval to survey all junior high school teachers and junior high school principals on the role of television in education.

A report on the results of her research will be made available upon completion.

Please assist her in conducting this survey.

G. B. Buchholz Director of Education

GBB/mjd

Appendix A2

Correspondence to Teachers

Dear Colleague,

The accompanying questionnaire constitutes the main component of my master's thesis. This research attempts to evaluate the role of television in education, particularly focusing on the unique Instructional Television System which has been operational in the St. James-Assiniboia School Division since 1966.

Since my survey population is quite small, your observations and opinions provide a valuable base for this study. Your active co-operation will be very much appreciated. Please take a few minutes to complete the following form. It can be returned in the envelope provided via the Division Delivery Service.

Many thanks for your quick support of this research.

Yours sincerely,

Barbara Laham, Sansome Junior High.

Tences.

Appendix A3

Teachers' Survey

ST. JAMES-ASSINIBOIA SCHOOL DIVISION #2 INSTRUCTIONAL TELEVISION SYSTEM

T	TO BE COMPLETED BY TEACHER					
M	Major Subject Area:	Sex:	Teaching	Experience: _		years
P	PART A.					
1.	1. What television training courses	have you att	ended?			
	2. Have you participated in any orien				No	
	3. Have you used the ITV system in the					
NC	NOTE: IF YOU HAVE USED ITV IN THE PA	AST 2 YEARS COMPLETE PAR		re part c. I	F NOT,	PLEASI
РΛ	PART B - 'NON-USER' ONLY:					
1.	1. If more assistance were available	, would you	use ITV in the	e class?		
	no <u>1 2</u>	3 4	5 very i	nuch so		
	(1	please circl	e)			
2.	2. Please indicate why ITV is not be:	ing used in	the classroom	:		
	a) program not suited b) ec) no control over programminge) limits or reduces curriculumg) difficulty in booking	d) tele	vision is not	considered us	seful	
3.	3. Comments or concerns relative to 1					
PA	PART C - 'USER' ONLY:					
	1. How often have you used ITV during	g this schoo	1 year 1979-80)?		
2.	2. Grade in which ITV is most frequer	ntly used?	J	least?		
	3. Please indicate how ITV is present					
	b) part of lesson c) supple					
	4. Do ITV lessons tend to present pro	oblems in arc	eas of review	and/or discus	ssion?	
5.	5. Would you like more influence in t	the acquisit	ion of new ITV	materials?		
6.	6. Would you be interested in produci	ng TV lessor	ns for your st	udents?		
7.	7. To what degree do you feel that IT	'V lessons ar	re accepted by	the students	s?	
	Not at all <u>1</u>	2 3 (please circ		1y		
8.	8. Comments or concerns regarding ITV	/ <u>•</u>				
٠						

Appendix A4

Teachers' Survey Results

ST. JAMES-ASSINIBOIA SCHOOL DIVISION #2 INSTRUCTIONAL TELEVISION SYSTEM

TO	O BE COMPLETED BY TEACHER N 13 with15 years exp
Ma	m F ajor Subject Area: 12 = N138 Sex: 94 44 Teaching Experience: av. 11.2 years
	Sc. 18 M.12 L.A. 31 Fr.8 RT A. S.S. 20 H.Ec. 8 I.A. 6 P.E. 15 REPLACE OF THE SET OF TH
	What television training courses have you attended? 107 28 others: AV, ITV, VTR, Micro
	Have you participated in any orientation workshops for ITV? Yes 24 No 114
3.	Have you used the ITV system in the last two years? Yes 97 No 39 (no response-2)
NO	TE: 1F YOU HAVE USED ITV IN THE PAST 2 YEARS PLEASE COMPLETE PART C. IF NOT, PLEASE COMPLETE PART B.
Р٨	RT B - 'NON-USER' ONLY:
1.	If more assistance were available, would you use ITV in the class? $\begin{array}{cccccccccccccccccccccccccccccccccccc$
	(please circle)
2.	Please indicate why ITV is not being used in the classroom:
	a) program not suited 20 b) equipment not available when required 1 c) no control over programming d) television is not considered useful 4 e) limits or reduces curriculum 4 f) conflict of time 8 g) difficulty in booking 3 h) other 7 (no useful, no habit, not suited, no time
3.	Comments or concerns relative to ITV: 25 comments disturbing)
	3/Time 6/ Material 3/ Knowledge 9/ Attitude 4/ Equipment
PΑ	RT C - 'USER' ONLY:
	How often have you used ITV during this school year 1979-80? 904/88=10.3 Average
	Grade in which ITV is most frequently used? Grade 9 least? Grade 7
	Please indicate how ITV is presently used in your classroom. a) main lesson 7 TOTAL 109
	b) part of lesson 14 c) supplement to lesson 61 d) combination of all 27
<i>i</i> .	
4.	Do ITV lessons tend to present problems in areas of review and/or discussion? TOTAL 96 Yes 13 No 83 Nature of the problem: Sc too general, size of screen, not if familiar with program and proper intro, good discussion LiALanguage difficulties (use french programs) Students in-ability to make notes from ITV. P.Ecan't stop for discussion, replay difficult, time.
5.	Would you like more influence in the acquisition of new ITV materials? TOTAL 94
	Yes 69 No 25
ó.	Would you be interested in producing TV lessons for your students? TOTAL 95
	Yes 31 No 64
7.	To what degree do you feel that ITV lessons are accepted by the students? 0 2 24 59 12
	Not at all <u>1 2 3 4 5</u> fully TOTAL 95
	(please circle)
3.	Comments or concerns regarding ITV: + 31 -55
	Sc limited use, outdated, good potential, valuable, very useful, no cataloging system, few
	approp. programs, new material needed, screen size, bookings. Fruseful-some good tapes. P.E useful teaching aid, good tool, very good. H.Ec Helps to keep current, useful. S.S Likes ITV, useful tool, aid, good for smaller classes, important to the teacher. Guid Positive values. Sp. EdValuable teaching tool, satisfied. I.A important, useful aid. Math Good programs, poor programs, more current, lacking Grade 9. L.A useful teaching aid, likes ITV, a valuable tool, most are good.

Appendix B1

Letter to Administrators

Dear

Mr. G. B. Buchholz has recently approved circulation of the attached questionnaire, which, together with a supplement for teachers, constitutes the main data gathering tool for my master's thesis. This research will attempt to evaluate the role of television in education, with a particular emphasis on the unique Instructional Television System which has been operational in the St. James-Assiniboia School Division since 1966.

As your observations and opinions provide a valuable base for this study, it would be greatly appreciated if you would take a few minutes to complete the attached questionnaire.

Also, it would be most helpful if you would distribute a questionnaire to each Junior High teacher in your school, and return in the envelope provided via the Division Delivery Service by June 6,1980.

Many thanks for your support.

Yours sincerely,

Barbara Laham, Sansome Junior High School. Appendix B2

Administrators' Survey

ST. JAMES-ASSINIBOIA SCHOOL DIVISION #2

INSTRUCTIONAL TELEVISION SYSTEM

TO BE COMPLETED BY ADMINISTRATOR:

Date:
No. of Teachers in School:
Present number of television sets that are available in you school:
COLOR: BLACK & WHITE:
In your school, to what degree do you feel that the ITV is used by your teachers?
never 1 2 3 4 5 extensively
(please circle)
To what degree do you feel that the ITV system enhances you school's educational progress? none 1 2 3 4 5 greatly (please circle)
(please circle)
Have you personally used the ITV system?
never 1 2 3 4 5 frequently (please circle)
Comments or concerns relative to ITV:

Appendix B3

Administrators' Survey Results

ST. JAMES-ASSINIBOIA SCHOOL DIVISION #2

INSTRUCTIONAL TELEVISION SYSTEM

TO BE COMPLETED BY ADMINISTRATOR:

N 2 3 1 3 1 1

Date: May 21, 22, 25, 26, 27, 28

No. of Teachers in School: 231

1. Present number of television sets that are available in your school: $\mathsf{TOTAL}\ 58$

COLOR: <u>15</u>

BLACK & WHITE: 43

2. In your school, to what degree do you feel that the ITV is used by your teachers?

N 1 2 4 4 never 1 2 3 4 5 extensively

(please circle)

3. To what degree do you feel that the ITV system enhances your school's educational progress?

N 1 2 4 3 1 none $\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{4}$ $\frac{5}{5}$ greatly (please circle)

4. Have you personally used the ITV system?

N 2 6 1 2 never $\frac{1}{2}$ $\frac{2}{3}$ $\frac{4}{4}$ 5 frequently (please circle)

5. Comments or concerns relative to ITV: +5 -2

Tremendous resource, but not fully utilized; Very great aid-science and S.S.; Can be useful supplement to class instruction; Can bring in controversial and current events; White Elephant; ITV used more by some than others; Programs are very good, esp. for dramatic performance; Staff wants them expanded.

Appendix C1

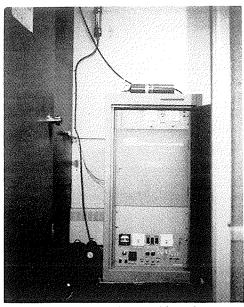
Photographs ITV-Early

APPENDIX C1

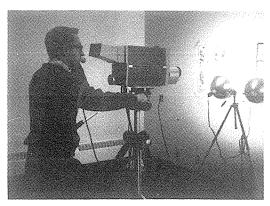
HISTORICAL DEVELOPMENT OF ST. JAMES ASSINIBOINE DIVISION # 2 INSTRUCTIONAL TELEVISION CENTRE



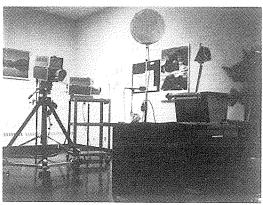
The ITV Centre located at 3195 Portage Avenue, in St. James-Assiniboia. The 100' tower structure supports an all-direction transmitting antenna, local VHF-TV receiving antennae and long wire antennae for short-wave communication.



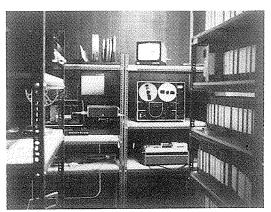
The Emcee model 25-102 microwave transmitter, operating at a mere 5 watts peak power and reaching a 'service area' of some ten miles radius.



WAYNE WARREN: Camera in Action.



Small studio with viewfinder cameras, lights, microphones and a teachers station.

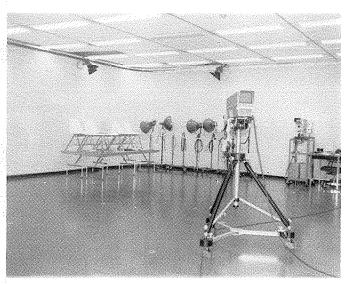


The operations room — housing the 16mm telecine (filmchain), the Sony 1" videotape recorder and our library of taped TV programs.

Appendix C2

Photographs ITV Centre

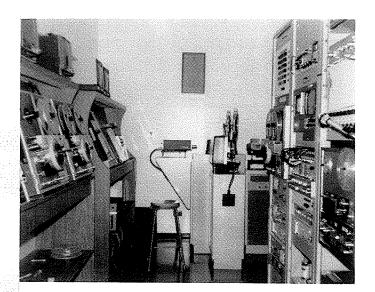
APPENDIX C2 STURGEON CREEK ITV CENTRE



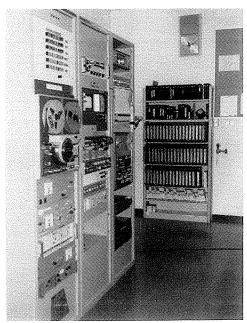
Sturgeon Creek ITV Studio



Telecine Film Chain, which processes films for ITV viewing.



TV Control Room where video tape recorders are used to retrieve pre-recorded programs from the video tape ibrary.



VTRI — master recorder on which all recordings have been made in colour; plus library of tapes ITV programs.