

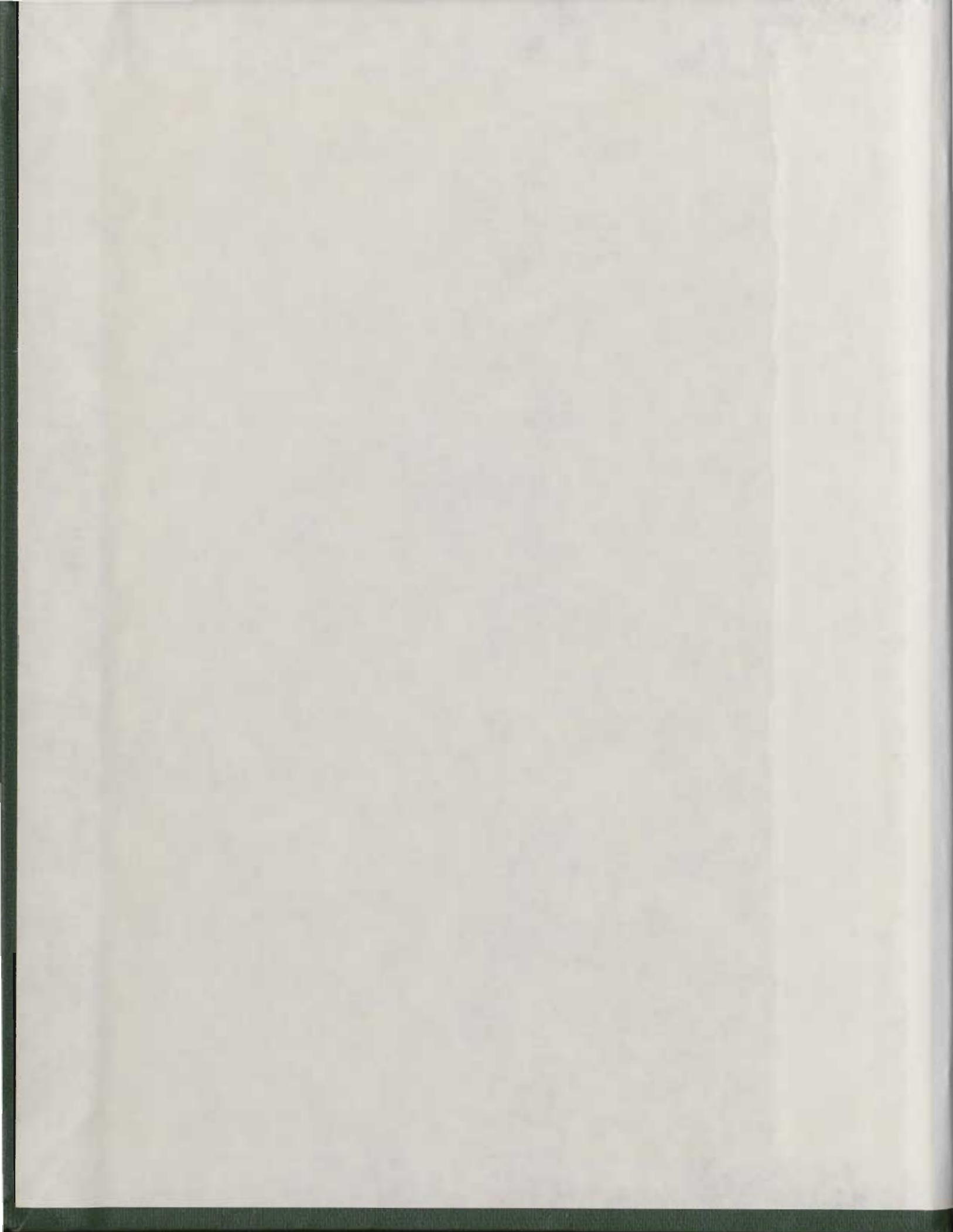
A REPORT ON THE
DEVELOPMENT OF AN
IN-SERVICE WORKSHOP IN
MEDIA AND COMMUNICATIONS

CENTRE FOR NEWFOUNDLAND STUDIES

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A REPORT ON THE DEVELOPMENT OF
AN IN-SERVICE WORKSHOP IN
MEDIA AND COMMUNICATIONS

A REPORT
PRESENTED TO
THE FACULTY OF THE GRADUATE SCHOOL
MEMORIAL UNIVERSITY OF NEWFOUNDLAND

IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
MASTER OF EDUCATION

BY
MARY F. KENNEDY

JUNE, 1978



ABSTRACT

An In-service Workshop in Media and Communications

The purpose of this study was to provide a viable means of changing teacher attitudes toward media in English studies. This was accomplished through the designing of the Media Production Workshop, which provided in-service for teachers and a valid learning experience for students, thus constituting in-service which was practical, of no financial burden to school boards, and involved no student time loss.

A total of 71 participants, 18 teachers and 53 grade eleven students, took part in this study. They were from both rural and urban schools. Tests and attitude measures devised by the investigator served as the means of collecting data.

Analysis of the data demonstrated that all participants gained in achievement scores from pre-test to post-test. Female participants scored significantly higher than did males.

Attitude measures indicated that participants changed from "no opinion" to positive attitudes from pre-scale to post-scale. Composite attitude scores were significantly greater in favour of teachers for "instructional value of media study" and "significance of media study for school boards." Composite attitude scores were also significantly greater in favour of urban schools for "instructional value of media study" and "media utility in English studies."

An important observation was that both teachers and students enjoyed and accepted working cooperatively as learners. Teachers felt that the

role of learner gave them the opportunity to become acquainted with their students on a more personal level than normal classroom routines permit, and students accepted their teachers as part of the group.

On the basis of this observation it was recommended that school boards consider implementing this type of in-service in the future.

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textbooks had been in use for twenty years or more. Although all students worked with the same program and used the same texts, an "academic examination" was administered to students considered to be of high ability, while those with lower ability wrote a "general examination". The general examination was actually a simplified version of the academic examination.

The Department of Education, on the recommendations of the English Curriculum Committee (a provincial committee consisting largely of English teachers), developed a new program of studies for general students from grades nine to eleven. This program was introduced in 1969, and was evaluated until 1972. On the basis of this evaluation, which dealt with the content of the new program only, the program was considered a success. In 1973 the program was extended to include academic students, making one program for all students: the "academic" and "general" classifications disappeared (Jones, 1975).

A General Outline of the Program

The new English program included a combination of core units and elective units. All students were required to complete the core program, plus two of the three or four elective units.

The core program consisted of prose selections, poetry, drama, novels, and language development. A wide range of material was available to meet the needs of students with differing abilities. Schools had the option of choosing one of three anthologies in each of the following categories: short stories, drama, poetry, and language development. Any number from a variety of novels could be chosen. Language development

CHAPTER 1

THE PROBLEM

Purpose of the Study

The purpose of this study is to develop and investigate the effectiveness of a workshop in media as a means of improving teacher attitudes toward educational media, with a view toward increasing the use and study of media in the high school English program in Newfoundland. The workshop will be presented as an in-service experience for teachers of English who are presently employed as classroom teachers, as well as an introduction to media production for senior high school students. It is expected that this approach will lead to increased emphasis on media in English studies.

Background Information

Introduction

During the past decade extensive curriculum development has been undertaken by the Department of Education in Newfoundland. An area in which extensive development has occurred is high school English. One of the most significant innovations has been the inclusion of the study of media in the English program.

For a number of years prior to 1969 high school English had consisted of the study of messages presented in the print media only, through the genres of novels, essays, drama, and poetry. Many of the

success with digital images (Fransecky and Debès, 1972). The media units were designed to provide students with media experiences, thus increase their visual communications skills through the study and analysis of films, television, and still pictures, and the production of visual messages.

A brief description of the media units follows.

Grades Seven and Eight. Media components were integrated into the existing program rather than developed as separate units. Use of equipment was related to work in oral communications. Students were encouraged to do projects using a mediated approach.

Grade Nine. The media unit presented an introduction to media with a general overview. Radio and music were emphasized, as were the principles of visual literacy through the textbook The Mind Benders (Terino and Sweet, 1969).

Grade Ten. The media unit introduced students to photography and film. The kit, The Leaf Not the Tree (Cameron and Plattor, 1971), emphasized visual perception.

Grade Eleven. The media unit presented a general overview of a variety of media through the examination of key components of the communication process, and the manner in which various media communicate the message. In particular, emphasis was placed on advertising through magazines, radio, and television.

Program Adoption.

The new English program has been in operation in Newfoundland

texts emphasized the communications aspect of language, and recommended that students be given the opportunity to work with a variety of media (English Curriculum Guide, 1973).

In conjunction with the core program a number of elective units were designed for each grade, encompassing diverse areas of interest. These elective units were also integrated into the junior high school program to serve as preparation for those doing the units in high school. Included at each grade level was a media unit (English Curriculum Guide, 1973).

The introduction of media content was based on the belief that rapid technological advances created a need for such innovation. At this point in time, when students are being continuously exposed to non-print media, when it is realized that these students will be forced to operate increasingly through a variety of media, when advances in communications technology have made the world a "global network" (McLuhan, 1965, p. 348), it is imperative that schools better prepare students to be consumers and users of messages in a variety of media. Students need to be familiar with the way media work, the way messages are designed and presented, how not to be exploited by the media, and how to benefit from what the media have to offer.

The media units involved students in the study of the process of communicating through various media. This demanded a redefinition of the role of media in education from the traditional "audiovisual aid" status to program content of intrinsic worth.

Visual literacy proponents claim that students who become skilled in decoding and encoding iconic images often achieve greater

may be in the fact that the print media have been the traditional vehicles for learning. Teachers have spent most of their lives in educational institutions. They have studied for twelve years in a school system, using books almost exclusively. They have attended university for a minimum of four years, using the print media. They have not been given the opportunity to work with other media in education.

Educational authorities, in implementing a program requiring major change by offering extensive media studies, ignored one vital aspect in the adoption of such an educational innovation, that is, the provision of in-service training for those involved in the change process. Rogers (1967), among other analysts, emphasizes that effective change in education demands preparatory study, including in-service education for teachers in the field. This study, then, was designed to contribute to in-service education in media.

Significance of the Study

Media In-service

The author is aware of no coordinated effort that has been made to provide in-service education in media for English teachers. Educational agencies have made individual attempts to bridge this gap, but have failed to reach a significant number of teachers with adequate in-service programs.

The Department of Education has provided expertise by making available upon request media personnel to visit school boards and conduct mini-workshops. The Department also, through the provincial

schools for the past five years. Both students and teachers seem to enjoy the program, and in general teachers appear to prefer it over the old program.

While the content of the new program is by this time accepted by many teachers, methodology has not changed substantially in conjunction with the new content. Most teachers seem to be inclined to teach the media units as they have taught the traditional units; that is, through the examination and analysis of messages in the print media. We therefore have the irony of the new media being studied only through the print media.

It is true that many teachers are attempting new techniques. Some approach drama from the production aspect; some supplement text books with filmstrips and films; a few have become involved in media study and media production. The majority, however, have not taken advantage of technology to add the diversity which was originally intended when the program was designed.

While many teachers have chosen to do the media units, they have done so without becoming involved in media techniques and production. The grade ten unit was introduced in twenty schools in 1973; now over ninety percent of Newfoundland schools do this unit. In more than ninety percent of the schools the media unit is studied in grade eleven, but in the majority of cases this unit is approached through the textbook only (Jones, 1977). It seems that most teachers of English, despite the opportunity to diversify, have remained print-oriented to the exclusion of other media.

Why are teachers reluctant to experiment with media? The answer

These factors indicate that adequate in-service education is not possible as long as the conventional approach to in-service training is followed. If in-service can be offered locally in the schools with students in attendance, direct costs to school boards are considerably less than conventional in-service sessions. Such in-service education may be effective, particularly in an area of education which is new to both teachers and students.

Media Study

Another consideration of this study concerns the student participants. These students have had no previous educational opportunity to work in other than the print media, yet many have achieved little success with this media. While one media experience might not afford students the opportunity to become visually literate, it should give some indication of whether or not these students can communicate using the visual media.

The rationale for student participants was four-fold.

1. In-service education would be more accessible to teachers if offered at the school level with students participating, as time and cost factors would be negligible.
2. Both students and teachers would participate in a learning experience, thus increase their knowledge of media and media production techniques.
3. The opportunity would be provided for both students and teachers to work cooperatively as learners. Through the sharing of ideas, skills, and techniques the relationship of both would be expanded.

consultant, presented a brief to the Division of Learning Resources of the Faculty of Education, Memorial University of Newfoundland in 1973, requesting that a media institute of three-course credit be offered for English teachers during summer sessions. This institute, entitled Multi-media and the Teaching of English, was offered one summer for English teachers only. It is no longer exclusive to the teaching of English, though some English teachers enrol yearly on an individual basis (Jones, 1975).

Provision of in-service education has been hampered by two factors: time and cost. The collective agreement between the Provincial Government and the Newfoundland Teachers' Association has established that a maximum of five days be granted teachers annually for professional development (Collective Agreement, 1977). Utilization of these five days is beset with many problems.

Most in-service sessions require that teachers be removed from the classroom, making necessary either the closing of schools or the hiring of substitute teachers. School boards are severely restricted in the number of substitute teachers permitted on a given day; this makes it virtually impossible to release large groups of teachers for in-service purposes without closing schools and depriving students of instructional time.

In-service costs are prohibitive, particularly in rural areas of the province. Travel expenses must be paid to all participants in in-service education. In rural areas where school populations are small and schools geographically distant, school boards must frequently bring personnel to a central location at considerable expense.

communicating ideas, thoughts, and impressions; a unit or course of study of communications media.

Media Production. A process of developing messages using electronic media.

Communications. A process in which meanings are exchanged through a language or signal code.

Low achievement. Category of participants who score in the range of 0 to 5 on the media achievement tests.

High achievement. Category of participants who score in the range of 6 to 10 on the achievement tests.

Visual literacy. The ability to communicate and interpret visual symbols.

Iconic images. Symbols which are realistic representations of the objects being symbolized.

Digital images. Symbols which bear no visually identifiable relationship to the objects being symbolized.

Limitations of the Study

This study is limited in that it is intended for teachers and students of grade eleven English classes only. This senior high school grade was chosen primarily because of the English program, which concentrates heavily on media and communications, and also because of the maturity of the students.

4. Student participants, through their enthusiasm for media studies, might be instrumental in encouraging teachers to use media in the future.

Conclusions

The author believes that the problem of the study of media in the high school English program can be solved through the provision of in-service education. An effective means of increasing media use would be to provide teachers and students with experiences in the study of media, to demonstrate to teachers that they have nothing to fear, to indicate the advantages of using media in English studies: in short, to convince them that working with media can be both fruitful and exciting. The author is of the opinion that this can best be accomplished in a workshop setting.

Definitions

For the purposes of this study the following definitions are stipulated:

In-service Education. A teacher activity involving a learning experience which is provided by an educational agency for the benefit of teachers in the education system.

Workshop. An activity-based learning experience relating educational theory to teaching practice through the involvement of participants in the learning process.

Media. An electronic print or non-print method or channel of

CHAPTER 2

REVIEW OF LITERATURE

Change and Innovation

An innovation may be defined as "a deliberate, novel, specific change which is thought to be more efficacious in accomplishing the goals of the system" (Miles, 1964, p. 14). Innovations are considered as planned rather than spontaneous and haphazard happenings.

"Innovation, as distinct from mere change involves the element of deliberate planning or intention, and it must, therefore, be understood in terms of human relationships" (Morrish, 1976, p. 11). According to the above definition, the implementation of the new English program in Newfoundland high schools was indeed an innovation.

With any innovation there are critical factors to be considered. Innovators cannot attain success by simply throwing out the old and bringing in the new. Motivation is certainly a critical factor. Why change? Are there any advantages? Is it not too much trouble? Should not one preserve the status quo? Those who must work with the innovation should believe that it will be of benefit. Pellegrin (1968) states "We have generally failed to demonstrate effective innovations in such a manner that the people to whom the demonstrations are given regard them as credible" (p. 45).

Educational innovations frequently affect the teacher in the classroom. To foster a healthy attitude toward the innovation

The workshop is limited to an examination of the general aspects of communications theory through games experiences and viewing/discussion sessions.

Much cooperation is required from administrators and school board personnel, as well as from teachers and students. This study, therefore, is limited to four schools in two districts of the province.

The results of this study are limited by the reliability of the instruments developed. This is particularly true of the attitude scale, which attempts to measure the intensity of an attitude in addition to attitude change.

teachers ought to be convinced that the change is worth the risk and that by becoming involved in the change process, the outcome can be controlled and the threat of the unknown diminished.

(Heichberger, 1972, p. 5).

Innovations which are imposed by the administration level frequently demand changes in the attitudes and beliefs of those involved in the implementation of the innovation.

Changes and innovations affect people and their attitudes, not simply institutions and their methods, and in any attempt to understand innovation in education we shall inevitably find ourselves analysing human personality and interpersonal relationships. (Morrish, 1976, pp. 21, 22).

This is particularly significant in education, since the key components of the system are human beings. While in society at large we see much evidence of change and innovation, in the field of education--particularly in the area of classroom techniques and strategies where teachers normally make the final decisions--success has been difficult to achieve.

To a greater extent than in most other fields of endeavour, significant changes in educational practice imply and require changes in the attitudes, skills, and values of the practitioner in order for change to be successfully adopted and adapted. (Lippitt, 1965, p. 17).

Education today is in a state of flux. Continuing social change demands educational change, and the time when teachers began and ended their careers without considering the need to change is long past.

As many people will attest, educational change is in the air. New problems are created almost daily as change upon change sweeps the social, political, economic, technological, and religious sectors of our country.

(Carson & Olivia, 1968, p. 63).

This state of flux is placing a heavy responsibility upon teachers to constantly change and up-date educational practices. Administrators and other educators frequently exhort them to be amenable

to change and innovation, but they generally receive little help in preparing themselves for the change.

In a time of global unrest and social rupture, the teacher is currently experiencing innovation upon innovation; new ideas of team teaching, heuristic methods, exciting projects, community schools, and curricula modified by cultural and technological changes—all these leave him bemused and mystified, and he begins to long for the stability of the old and well-tried paths.

(Morrish, 1976, p. 10).

If teachers are to accept innovation, they should be adequately prepared to cope with the upheavals accompanying major change. They should be involved in all stages of the change process. "Despite the attention change and innovation is presently receiving, the implementation and consequences of change . . . are not well understood" (Carson, 1968, Introduction). Too often innovations are planned by administrators, with little consideration given to the practicalities of implementing these innovations at the classroom level. Pellegrin (1968) states "It is clear that innovative activities succeed or fail in the final analysis at the classroom level, where learning presumably occurs" (p. 41).

Consultation throughout all stages of the adoption process, and inclusion in the planning of the innovation makes teachers a part of the process. Their opinions and feelings should be sought and considered if they are expected to meet the challenge of the innovation with enthusiasm.

There is every reason to believe that teachers will respond reluctantly to innovations which they have had no part in choosing, which they dimly understand and appreciate, and whose disruptive effects they find difficult to accept.

(Pellegrin, 1968, p. 41).

focus on the motivation to change. Eraut (1972) states "a major function of in-service education is the promotion of innovations in teaching and learning" (p. 5), and Finch (1969) believes that

to be effective today, in-service education must involve more than practices and procedures--it must be concerned with attitudes of mind and with ways of approaching and influencing the lives of the people who make up the education effort . . . (p. 10).

Teachers have invested considerable time and expense in university training, and emerge presumably equipped to teach. Since education is in a state of constant change, however, there is need for continuous retraining. Bishop (1967) claims that "virtually every new curricular modification requires new teaching and learning strategies" (p. 11). How might teachers continue to develop professionally? "One of the most effective methods for continuing development of professional staff is the in-service education program" (Stoops & Johnson, 1967, p. 385).

Considering the fact that education is in a state of constant change, the teacher in the classroom is the key to the success or failure of educational innovations. Rubin (1971) states

Whatever the nature of the innovations . . . their success is inextricably linked to the human teacher who puts them into use in the classroom. The importance of perennially updating the practitioner cannot help but increase in the period ahead. (p. 253).

With increasing demand for in-service, costs cannot continue to be borne by school boards. Johnson (1971) observes "the accelerated growth of knowledge in our technological society demands planned, regular, recurring courses likely to involve costs which should be met by the whole community" (p. 12).

While innovation does cause upheaval, it is more imperative today than in the past that innovation be a part of the education system. Never before has knowledge increased at the rate with which the teachers of the 1970's must cope. Frymier (1969) says

given the urgencies and the pace of the times, the case for educational change is born. Change for the sake of change is not desirable, of course, but progress in a democracy develops out of the sensitive and intelligent use of information as a basis for national change (p.10).

In-service Education

A major factor in the successful adoption of educational innovations is in-service education. While school boards frequently object to the cost of providing in-service, they cannot avoid such training if they expect to implement change. "Innovations become drop-outs because without in-service support . . . there are inadequate forces to continue" (Bishop, 1967, pp. 10, 11). If teachers are expected to change their teaching behaviour and alter their attitudes and values they must undergo retraining to prepare for change.

Interest in in-service education has in recent years been focused on the development of sound strategies for change.

Times change, pupils change, curriculums change, situations change, and so we must have dynamic professional growth programs if we are going to have anything approximating excellence in education, now or in the future.

(Harris, 1966, p. 257).

If teachers are expected to change their teaching behaviour, alter their methods, and introduce those in their care to new ideas and methods, they should be given the opportunity to develop and foster a commitment to the innovation. Teachers need in-service programs which

active role are more likely to accomplish their goals than are programs that place the teacher in a receptive role (Miel, 1962).

The workshop has become an increasingly popular form of in-service education. O'Rourke (1957) hails workshops as "... one of the most important developments in in-service education of teachers" (p. 1). The term workshop is often used indiscriminately, however, to refer to in-service sessions generally. Workshops are actually those sessions in which teachers are asked to actively participate in the learning process. "Workshop groups are not 'told what to do,' they themselves determine what to do and how to do it" (O'Rourke, 1957, p. 2).

Plank (1960), in a doctoral study evaluating in-service programs in California, concluded that in-service experiences are of most value when (a) workshops are used, (b) demonstrations are presented by experts, (c) material is practical, (d) information is immediately usable, and (e) direct teacher participation is required (pp. 154-162).

It would seem that the move toward workshops is a move in the right direction. Eraut (1972) presents a diagram of in-service forms (p. 25), displayed in Figure 1.

Workshop experiences, then, can be of benefit to teachers, and this form of in-service education presents a practical approach to professional development.

The workshop is ideally suited to the integration of theory and practice . . . Integration of learning is more likely when doing and understanding (and we might include here, feeling) are simultaneous. (O'Rourke, 1957, p. 29).

In workshops emphasis is placed on the process rather than the product. Resource personnel are expected to do things with participants, rather than for them. No other form of in-service has gained more

Educators, required to function within a restrictive budget, should ensure that in-service programs offered are of value. Stoops and Johnson (1967) see in-service education as a continuous program. "To be most productive it should be school, rather than district, oriented. It has no value until the teacher's learning affects his classroom teaching" (p. 388). They also believe that in-service education should be scheduled during the teacher's work hours; ". . . if in-service education is worthwhile, it should be scheduled as part of the work load and not stolen from the teacher's family life or recreation" (p. 390). Too often teachers are required to participate in in-service sessions at the end of a busy school day, or following a long and tiring school week.

While provision of good in-service education cannot furnish answers to all the problems of the education system, it can ensure that teachers in the classrooms are prepared to cope adequately with the ever-changing educational scene.

In-service education is not a panacea for all the weaknesses in the instructional program. It does recognize, however, that the basic factor in improved instruction is the teacher, and back of the improved curriculum is the human element.

(National Education Association, 1966, p. 3).

The Workshop as In-Service Education

The concept of in-service education has been changing during the past few decades. Traditionally in-service consisted of sessions planned by the administration during which experts presented lectures to teachers. Today the emphasis is on teacher involvement and interaction, the group approach to problem-solving, and practical workshop experiences. Those in-service programs that place the teacher in an

acceptance by teachers.

The concept of the workshop experience has brought new meaning to in-service education, and attracted many teachers to enrich their professional and personal lives.

(McGuire, 1971, p. 42).

Experiences deemed unique to workshops, according to McGuire (1971) are:

1. Participants set their own goals.
2. Participants, through interaction, exchange ideas, knowledge, and techniques.
3. Participants have the opportunity to meet in a social setting.
4. Participants share in the process of evaluation.

The Workshop in Media

Because of the technology trauma suffered by many teachers when faced with the seemingly complex hardware of educational media today, workshops are more effective when a practical approach is used. A "hands-on" workshop which provides practical experience with a variety of media is deemed most effective. (Eraut, 1972).

In 1973 staff members of Miami-Dade Junior College held a Curriculum Development Workshop-Seminar in Media. This workshop proved to be highly effective (Miami-Dade Junior College. Final Report, 1973).

Twenty-two participants were involved in this workshop, which was of two weeks duration. Stated goals of the workshop were (a) to prepare teachers to implement media courses of their own, (b) to provide teachers with new modes of communication, and (c) to increase the use of media in teaching. (Miami-Dade Junior College. Final Report, 1973, p. 61).

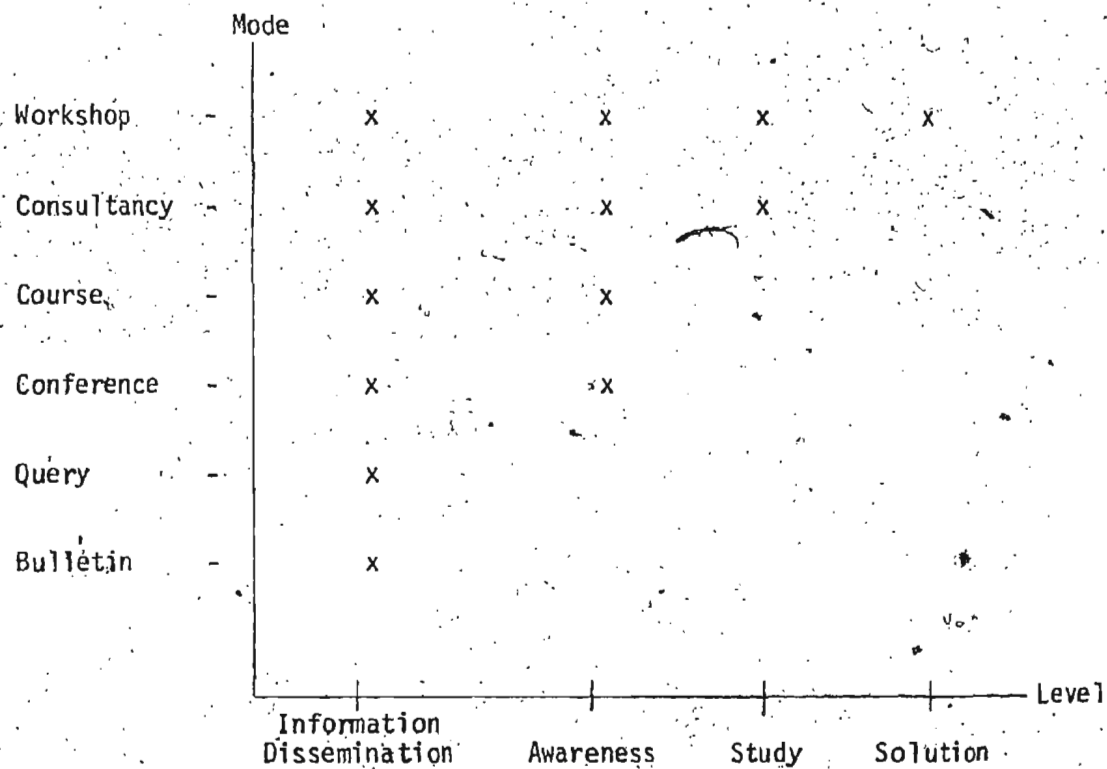


Figure I

Modes and Levels of In-service Education

Schools have tended to concentrate on verbal modes of communication only. The relationship between visual training and verbal training should receive serious consideration, since one might well complement the other. Marcoussé (1974) observes that

Professor Arnheim in his book Visual Thinking [1970] reproaches present day educational practices as being too biased toward verbal abstractions and points out that 'Visual form is not recognized as a medium of productive thinking.' (p. 8).

While media are being used in education, educators should ensure that they are being used wisely, and in such a manner that they will be of benefit to students. Schillinger (1976) says "Using media gives . . . students . . . a chance to say who they are, where they are, how they think, and how they see the world" (p. 67). Teachers, then, should give serious consideration to media, and involve their students in media studies.

The eye is the most important gateway to the mind. For most people the visual impression is the one which can be most easily interpreted, is the most lasting, and relates most readily to other sensory experiences.

(Sumner, 1956, p. 1).

If a change in the status of media in education is to take place, it seems that the English program is the logical place to begin. Language study has always involved the examination of communications through the print media, and media studies would merely expand this examination to include other media.

Those who have already become involved in media studies report favourable results. Schillinger (1976) describes his experiments with media in English classes:

Reactions to the workshop were highly positive. According to the authors participants were enthusiastic about the potential of media in teaching, and felt a desire to begin immediately to produce materials. The units on equipment familiarization and media production were considered very important. The only hesitancy in planning for the future was based on financial considerations.

Media and Education

The critical function of formal education is to prepare students for their role as members of society. For this reason, educational philosophy is inextricably linked to current social conditions. Today's society is visual. Debes (1976) says "Because we live in a visual culture and much of what we learn is related to what we see, it would appear that the educational curriculum is bound to the development of visual skills" (p. 43).

Visual literacy did not become an issue until visual communication became common-place through advances in technology. Today media study is becoming increasingly important, as visual stimuli permeate the lives of students. Visual messages are transmitted daily through magazines, billboards, signs, films, and television, all of which contribute to a more visually aware person. (Fransecky & Debes, 1972).

The case for the inclusion of media studies in the school curriculum is stated by Dondis (1973):

If the invention of movable type created a mandate for universal verbal literacy, surely the invention of the camera and all its collateral and continually developing forms makes the achievement of universal visual literacy an educational necessity long overdue. (p. 1).

workshop setting.

Media as an educational innovation should no longer be ignored. Students should be provided with the opportunity to study media, to become involved in media production, and to examine the impact of media upon their lives. The case for visual literacy, in addition to verbal literacy, becomes more pressing with each successive decade,

With media as their tools, they learned the various components of literature. They discovered that plot means a story has a beginning, goes somewhere, and has an ending. They had to decide the message--what they wanted to say; the mood--how the story made them feel; and the atmosphere--what kind of feeling they hoped to project to their audiences.

(pp. 67, 68).

Sumner (1956) sees a strong link between visual and verbal literacy. He believes that the use of visual images provides a means of increasing verbal capacity. "Many . . . difficulties attend the use of both words and pictures, but the use of each may be made to react favourably on that of the other" (p. 3).

The study of English is concerned with the process of communication to a greater extent than the other disciplines which are traditionally considered to be core curriculum. Traditional English studies can be enhanced through the study of media.

Language is important not only because we use it to communicate our ideas to others, but it is also the chief vehicle of our thinking processes. Language is not only our link with the present, but it puts us in relationship with the past and the future . . . The visual technique itself constitutes a language, and the translation from the visual to the verbal language will demand a process of thinking about that which lies behind the language.

(Sumner, 1956, pp. 65, 66).

Summary

The twentieth century has brought with it an ever-changing world, and this has a direct impact on education. The need to innovate in education is constant and must be accepted.

Innovations demand in-service education, which is vital to their successful adoption. Effective in-service education is best provided when teachers actively participate in the learning process, as in the

This study is concerned with the effectiveness of a media production workshop as a procedure for initiating participants into the relevance of media-oriented instructional and learning strategies for the English program in the secondary school. More specifically the workshop would introduce both teachers and students to media production skills and techniques, and effect an attitude change through this experience.

To achieve in media students and teachers need to acquire certain basic skills. It is necessary to know how to operate a variety of equipment. This includes the basic operating procedures, the limitations of the equipment, and techniques to rectify problems which may arise.

It is necessary to acquire organizational skills which involve the presentation of visual and oral messages. A number of general techniques are required, such as basic graphics skills, minor photographic skills, and synchronizing techniques. General skills necessary to media work include effective communications techniques and an understanding of how the various media communicate.

Acquisition of cognitive skills provides a base for the formation of attitudes. Attitudes are often formed on the basis of inadequate knowledge, and are therefore not sound. By providing a "hands-on" learning experience, the workshop attempts to increase participants knowledge of media study, thus provide a sound base for the formulation of attitudes.

The major objective of the study is to determine that participation in a total-immersion media production workshop will produce a

CHAPTER 3

THE STUDY

In this chapter the procedures employed in the designing of the Media Production Workshop, and the conducting of the study to evaluate its effectiveness are presented. The organization of the study and the procedures and measurements are described. The initial questionnaire and the tests administered are also described.

Statement of the Problem

The study is concerned with the designing, implementation, and evaluation of an in-service workshop in media (see Appendix A for a description of the workshop).

In-service education presents an effective means which educational authorities can use for introducing professional staff to educational changes designed to improve the school curriculum. Various forms of in-service education have been tested, and it has been demonstrated that the workshop format, which involves teachers as active participants in the learning process, is most effective (Eraut, 1972).

While it is unlikely that any single workshop experience can change teacher behaviour in the classroom in any profound and long-term way, it can alter attitudes by providing an experience which is meaningful and rewarding, and it can introduce an innovation by providing basic knowledge of the subject. Follow-up work is most likely necessary, but the workshop can establish the initial introduction.

change in both achievement and attitudes of participants. Expected results are achievement gains in the cognitive realm and more positive attitudes in the affective realm.

One of the questions posed is whether or not media study could be effective in both resource-rich and resource-deficient school regions. It is important to investigate the extent to which it is effective in both types of regions.

The study was conducted in both types of school regions. Particular schools chosen coincidentally allowed for the classification of rural groups as resource-deficient and urban groups as resource-rich.

The two rural groups were classified by the author as "resource-deficient" in that schools lack media facilities and equipment, and one general program is offered to all students regardless of academic ability. Furthermore, little exposure to media is possible culturally, as communities lack facilities which provide media experiences.

The two urban groups were classified as "resource-rich" in that schools have adequate media equipment and facilities, diverse programs catering to students of different abilities, and provide the opportunity for participation in extra-curricular activities which involve media and communications experiences. As well, the urban community offers the opportunity for media involvement socially and as a leisure activity.

As the workshop was designed for two types of participants, teachers and students, both with different needs and different goals, it is necessary to demonstrate that the strategy is as effective with students as with teachers, since both are participants in a joint learning experience. It is also necessary to demonstrate that the

strategy is effective with both males and females.

The study then, is designed to investigate the following questions.

1. Will participation in the Media Production Workshop result in increased knowledge of media for both teacher and student participants?
2. Will participation in the Media Production Workshop result in a change in attitudes toward media, in a positive direction, for both teacher and student participants?
3. Will in-service education which includes both teachers and students as participants in the learning process prove to be an effective learning experience for both types of participants?

Hypotheses

To test the questions presented above a number of hypotheses involving both achievement and attitudes were postulated. In any attempt to measure attitudes certain assumptions must be accepted. It must be assumed that attitudes do exist, that they can be expressed verbally as opinions, and that opinions can therefore be used as attitude measures. It must also be assumed that lack of opinion on the part of participants reflects lack of attitude, or "non-attitude" at the time of testing.

The nine hypotheses tested in the course of this study were:

Hypothesis 1: There will be a change in overall achievement of participants, from low achievement to high achievement as defined in Chapter 1, from pretest to posttest.

Hypothesis 7: There will be no significant differences in the composite attitude "socializing value of media study" due to the independent variables of

- (a) sex
- (b) teacher or student participants
- (c) type of school.

Hypothesis 8: There will be no significant differences in the composite attitude "general educational implications of media study" due to the independent variables of

- (a) sex
- (b) teacher or student participants
- (c) type of school.

Hypothesis 9: There will be no significant differences in the composite attitude "significance of media study for school boards" due to the independent variables of

- (a) sex
- (b) teacher or student participants
- (c) type of school.

Experimental Design

The study employed a One-Group Pretest-Posttest Design (Campbell & Stanley, 1963) illustrated in Figure 2.

Despite inherent weaknesses of this design, the researcher decided to proceed on the basis that this study is a field study and as such places demands on those in the field in the form of time loss, interrupted curriculum, and administrative rescheduling. This design

Hypothesis 2: There will be a change in overall attitudes of participants, in a positive direction, from pre-attitude to post-attitude scales.

Hypothesis 3: There will be no significant differences in achievement of participants due to the independent variables of

- (a) sex
- (b) teacher or student participants
- (c) type of school.

Hypothesis 4: There will be no significant differences in the composite attitude "aesthetic qualities of media study" due to the independent variables of

- (a) sex
- (b) teacher or student participants
- (c) type of school.

Hypothesis 5: There will be no significant differences in the composite attitude "instructional value of media study" due to the independent variables of

- (a) sex
- (b) teacher or student participants
- (c) type of school.

Hypothesis 6: There will be no significant differences in the composite attitude "media utility in English studies" due to the independent variables of

- (a) sex
- (b) teacher or student participants
- (c) type of school.

areas: general background information, equipment checklist, and a media utilization section (see Appendix B).

Achievement Test

A measuring instrument of 10 items was developed. The items concerned steps in equipment operation, factual information on the steps involved in media productions, and the components of various media (see Appendix B).

Since the achievement test was to be used in a pretest, posttest design with an interval of just two and one half days, items were presented in two forms to minimize the effect of the pretest itself. The first form, the pretest, presented items in statement form with multiple choice answers available for selection. The second form, the posttest, presented items in question form. Participants were expected to provide answers in statement form.

No validation other than face validation by the researcher was established for the achievement test. This was considered adequate, as the researcher has had 13 years of classroom teaching experience, and has designed numerous types and forms of tests encompassing a wide range of subjects and levels. As well, the researcher has had three years of administrative experience which included the responsibility for all testing within a school system.

The achievement test was scored on a 0 to 10 scale of one point for each correct response.

Attitude Survey

The attitude instrument developed for this study utilized a

permitted testing of the study with minimum inconvenience to participating schools.

Group A (\underline{n} = 24)	O_1	X_1	O_2
Group B (\underline{n} = 17)	O_1	X_1	O_2
Group C (\underline{n} = 19)	O_1	X_1	O_2
Group D (\underline{n} = 11)	O_1	X_1	O_2

X_1 = Treatment

O_1 = Pre-Achievement Test, Pre-Attitude Scale

O_2 = Post-Achievement Test, Post-Attitude Scale.

Figure 2

Experimental Design for Evaluation
of the Media Production Workshop

The Instruments

The researcher used three means of collecting data.

Media Utilization Questionnaire

Development and use of the "media utilization form" to collect data were based on the writings of Selltiz et al. (1967), on questionnaire research methods in education and social relations.

The questionnaire included both closed and open-ended questions, and was distributed to teacher participants only. It was designed primarily to ensure adequate knowledge and understanding of the teacher participants on the part of the researcher. It was divided into three

attitude statements of significance to education throughout the province.

6. Significance of media study for school boards included attitude statements which directly concerned school boards, such as financial implications, and availability of equipment and materials.

Participants were asked to signify agreement or disagreement on a 5-point scale, the points being "strongly agree", "agree", "undecided", "disagree", and "strongly disagree". An example follows:

Media production is enjoyable. | SA | A | U | D | SD |

The 5-point scale permitted participants not only to agree or to disagree, but also to express intensity of agreement or disagreement, or indecision. Each individual scoring was assigned a numerical value from 1 to 5 along the scale, so that, for example, "strong agreement" was assigned a 5, while "strong disagreement" was assigned a 1.

Validity of the attitude scale was established through consultation with a panel of five experts from educational media, secondary English, and educational research. This scale was used as both a pre-attitude and post-attitude measure.

The Treatment

The treatment consisted of participation in the Media Production Workshop. The general aims of the workshop were: (1) to provide effective in-service education at the school level with both teachers and students in attendance, thus minimize the time and cost factors which normally inhibit the provision of in-service education; (2) to provide an opportunity for both teachers and students to participate and

Likert-type scale, which is one of the most common methods of measuring attitudes. This type of scale was selected since it allowed participants to check one of a range of reactions to each statement, including responses appropriate for indecision, which response signified lack of opinion at the present time. This type of scale was of value as the majority of participants had not previously been exposed to the issues involved, and therefore may not have formulated attitudes about these issues.

A description of the attitude scale, the composite attitudes, and the scoring method follows (see Appendix B for the complete attitude scale and the composite attitude categories).

The scale consisted of 30 statements about media arranged in random order. Statements were considered of approximately equal value. The 30 statements were selected to represent six clusters of composite attitudes as follows:

1. Aesthetic qualities of media study included those attitude statements on the intrinsic worth and general qualities of media.
2. Instructional value of media study included attitude statements concerned with motivational value and teaching techniques and methodology.
3. Media utility in English studies included attitude statements of direct application to skills required in English, such as planning of communications, expressing of ideas, and ordering of thoughts.
4. Socializing value of media study included those attitude statements concerned with cooperative learning and group projects.
5. General educational implications of media study included

program. They worked in small groups, and each group was responsible for all tasks involved in the entire production process. The workshop concluded with a show-and-tell session in which productions were viewed, discussed, and informally evaluated.

Pilot Study

The workshop was conducted as a segment of the Media Institute of the Division of Learning Resources at Memorial University of Newfoundland during the summer of 1977.

The Institute was attended by 26 teachers. As a result of this pilot study a number of changes were made.

1. Equipment orientation was unnecessary, as participants learned to operate a number of pieces of equipment while engaged in the production process.

2. A fixed agenda acted as a constraint, and flexible scheduling was determined to be more appropriate to this type of learning experience.

3. Communications activities were better suited to a group involving students.

4. A storyboard instruction session which included viewing of a slide-tape program caused most groups to choose the slide-tape medium to the exclusion of other media. It was therefore decided that this slide-tape program would not be presented at future workshops.

work cooperatively as learners, thus add a new dimension to their professional relationship; (3) to provide all participants with the opportunity to work with media, thus to increase their knowledge and skills; (4) to arouse an interest in and generate a more positive attitude toward media study.

The workshop was a total-immersion experience of two and one-half days duration. During each work day, participants were involved for approximately 12 hours. Experiences included familiarization with audiovisual equipment and techniques, the production of materials, awareness of the communications process, and emphasis of visual literacy (see Appendix A)."

Specifically participants followed four streams through involvement in a variety of activities.

1. Equipment. Participants were given the opportunity to use a variety of equipment. Production tasks involved the use of equipment, in the belief that such learning would be meaningful.

2. Communications. The medium and the message aspects of the communications process were stressed through discussions and games, and communications as a two-way process was demonstrated.

3. Production. Participants were brought through the production process, from initial planning to the completion of a short mediated product.

4. Awareness. Through the viewing and discussion of selected films, slides, and other materials, participants were made aware of the role of media in their lives, and the need for media study in the school system.

Participants were required to plan and produce a short mediated

School Board for St. John's. It is a large, all-grade school of approximately 1,000 students and 50 staff members. The buildings are new and very modern. Students are bussed from an area stretching for 25 miles along the coastline. The school is generally very well equipped, and adequate darkroom and photographic facilities are available.

A fourth workshop was conducted at St. John's, having been requested by a small group of English teachers. This group expressed particular interest in the workshop, as they were involved with students in extra-curricular activities which required additional media skills, such as the production of school journals and yearbooks.

The Participants

There were two categories of participants in the workshop.

Teachers. Eighteen teachers, 16 men and 2 women, participated in the study. They ranged in age from 24 to 37, with a mean age of 28. All had had extensive training in the traditional genre, but had been given little opportunity to become familiar with the role of media in education. None had been enrolled in media courses while attending university, nor had in-service been provided by school boards.

Students. Fifty-three students enrolled in grade eleven classes participated in the workshop. These ranged in age from 15 to 18 years. Of this group 22 were males and 31 were females. Both general and academic tracks were represented; 35 students were classified as general, and 18 students were considered as academic.

The District

In considering a suitable district, it was decided that time constraints limited this study to a small area. The Roman Catholic School Board for Gander-Bonavista was chosen as representative of the province.

This school board authorized workshops in two districts (see Appendix C).

St. Brendan's. This community is located on a small island in Bonavista Bay, and has a total population of approximately 500 people. The island is isolated during the winter months and is quite rural in nature. The school board operates one small high school at St. Brendan's. This facility, though just 11 years old, is not modern and is very poorly equipped.

King's Cove. This area includes 10 communities along the south side of Bonavista Bay. The area is rural in nature, but it is linked by highway to both Clarenville and Bonavista, two semi-urban centers which are less than 50 miles distant. The school board operates one high school at King's Cove which services all the nearby communities. This school is modern, but it has inadequate media facilities. Since the school board did not authorize a workshop at Gander, an urban center with a new high school, thus it was necessary to conduct the workshop in another urban area. Holy Spirit School at Manuels was selected.

This school is under the jurisdiction of the Roman Catholic

CHAPTER 4

ANALYSIS OF DATA

Introduction

In this chapter the data collected according to the procedures outlined in Chapter 3 is reported, in terms of the hypotheses stated. The hypotheses tested were examined to investigate two major questions: (1) is an intensive short workshop in media production an effective way to increase knowledge of media techniques, and (2) will participation in an intensive short workshop in media production change attitudes toward media?

Achievement

To test hypothesis 1, a pre-achievement test score (0-10) was obtained for each participant, to represent the participant's knowledge of media techniques prior to the treatment. Following exposure to the media treatment a post-achievement test score (0-10) was obtained. A mean score of 1.521 out of 10 was obtained for the 71 participants on the pre-achievement test. Mean post-achievement test score was 7.648 out of 10. Mean gains for all subjects from pre-to-post achievement tests were 6.127 (see Table 1).

These students were totally unfamiliar with media. Few owned simple instamatic cameras or cassette recorders. Exposure to media in education consisted of an audiovisual function of viewing occasional commercial films, and mathematical demonstrations via the overhead projector.

Evaluation Procedure

A treatment and testing schedule was arranged. Approximately two weeks prior to the treatment, teachers in each group were asked to complete a media utilization questionnaire. Immediately preceding the treatment all participants were asked to complete the pre-achievement test and the pre-attitude scale. The treatment of two and one half days duration was given, and, upon completion, participants were asked to complete the post-achievement test and post-attitude scale.

All test results were scored and all data tabulated. Means were used to determine the differences between pre-scores and post-scores. F ratios were calculated to examine the influence of the independent variables of sex, teacher or student participants, and type of school. Pearson product moment correlation coefficients were calculated to relate variations in one variable with those in other variables. Frequencies of response to each item on the attitude scale were also tabulated (see Appendix D).

Table 1
Mean Pre-Achievement and Post-Achievement
Test Scores of Media Production
Workshop Participants

Pre-test	Post-test	Mean Gains
1.521	7.648	6.127

$n = 71$

Attitudes

To test hypothesis 2, for each participant a pre-attitude score (30-150) was obtained to represent the participant's attitude toward media prior to the treatment. Following exposure to the media treatment a post-attitude score (30-150) was obtained to measure attitudes toward media. The mean score on the pre-attitude scale was 108.03; mean post-attitude scale score was 132.57. Mean gains in attitude results from pre-attitude to post-attitude scale were 24.54. These data are summarized in Table 2.

Table 2
Mean Pre-Attitude and Post-Attitude Scale Scores
of Media Production Workshop Participants

Pre-scale	Post-Scale	Mean Gains
108.03	132.57	24.54

$n = 71$

Breakdown of Achievement and Attitude Scores

To test hypotheses 3(a), 3(b), and 3(c), one factor analysis of variance was conducted separately on each of the independent variables of sex, teacher or student, and type of school.

The results of these analyses indicated significant differences between sexes on achievement test difference scores, $p < .05$, with females demonstrating greater test difference scores. However, analysis of achievement test difference scores between teacher and student participants, and between rural and urban schools was not significant, $p < .05$. These data are summarized in Tables 3 through 5.

Table 3

One Factor Analysis of Variance of Sex Differences
on Pre-Achievement and Post-Achievement
Test Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	31.965	1	31.965	6.749*
within	326.854	69	4.737	
totals	358.789	70		

* $p < .05$

To analyze further the changes in attitudes from pre-scale to post-scale a one factor analysis of variance was conducted separately on each of the independent variables of sex, teacher or student, and type of school, and the six composite attitudes outlined in Chapter 3.

A one factor analysis of the composite attitude "aesthetic qualities of media study" on each of the three independent variables yielded no significant differences, $p < .05$, for either sex, teacher or student, or type of school. These data are presented in Tables 6 through 8.

Table 6

One Factor Analysis of Variance of Sex Differences
on Pre-scale and Post-scale Composite
"Aesthetic" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	9.383	1	9.383	1.104
within	586.195	69	8.496	
totals	595.578	70		

Table 4
 One Factor Analysis of Variance of Teacher/Student
 Differences on Pre-Achievement
 and Post-Achievement Test
 Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	5.602	1	5.602	1.094
within	353.187	69	5.119	
totals	358.789	70		

Table 5
 One Factor Analysis of Variance of Urban-Rural
 School Differences on Pre-Achievement and
 Post-Achievement Test Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	2.727	1	2.727	.528
within	356.062	69	5.160	
totals	358.789	70		

Table 7

One Factor Analysis of Variance of Teacher/Student
Differences on Pre-Scale and Post-Scale Composite
"Aesthetic" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	0.092	1	0.092	0.011
within	595.485	69	8.630	
totals	595.577	70		

Table 8

One Factor Analysis of Variance of Urban/Rural
School Differences on Pre-Scale and Post-Scale
Composite "Aesthetic" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	19.801	1	19.801	2.373
within	575.776	69	8.345	
totals	595.577	70		

A one factor analysis of variance of the composite attitude "instructional value of media study" yielded no significant differences on the independent variable of sex. Significant differences were obtained for the independent variables teacher or student, and type of school. Teachers demonstrated significantly greater changes from pre-scale to post-scale, $p < .05$, than did students. Participants from large, urban schools demonstrated significantly greater changes from pre-scale to post-scale, $p < .01$, than those from small rural schools. These data are summarized in Tables 9 through 11.

Table 9
One Factor Analysis of Variance of Sex Differences on
Pre-Scale and Post-Scale Composite "Instructional
Value" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	3.155	1	3.155	0.316
within	689.831	69	9.998	
totals	692.986	70		

Table 12
One Factor Analysis of Variance of Sex Differences
on Pre-Scale and Post-Scale Composite "English
"Utility" Attitude Difference Scores

Source	SS	df	MS	F
between	1.052	1	1.052	0.094
within	772.498	69	11.196	
totals	773.550	70		

Table 13
One Factor Analysis of Variance of Teacher/Student
Differences on Pre-Scale and Post-Scale Composite
"English Utility" Attitude Difference Scores

Source	SS	df	MS	F
between	19.457	1	19.457	1.780
within	754.092	69	10.929	
totals	773.549	70		

Table 14
One Factor Analysis of Variance of Urban-Rural School
Differences on Pre-Scale and Post-Scale Composite
"English Utility" Attitude Difference Scores

Source	SS	df	MS	F
between	56.485	1	56.485	5.435*
within	717.064	69	10.392	
totals	773.549	70		

* $p < .05$

Table 10

One Factor Analysis of Variance of Teacher/Student
Differences on Pre-Scale and Post-Scale Composite
"Instructional Value" Attitude Difference Scores

Source	SS	df	MS	F
between	53.241	1	53.241	5.742*
within	639.745	69	9.272	
totals	692.986	70		

* $p < .05$

Table 11

One Factor Analysis of Variance of Urban-Rural School
Differences on Pre-Scale and Post-Scale Composite
"Instructional Value" Attitude Difference Scores

Source	SS	df	MS	F
between	81.509	1	81.509	9.198*
within	611.476	69	8.862	
totals	692.985	70		

* $p < .05$

A one factor analysis of variance of the composite attitude "media utility in English studies" yielded no significant differences on either the independent variable of sex or that of teacher or student. However the results of the one factor analysis on the independent variable, type of school, yielded significant differences, $p < .05$, in favour of large, urban schools. Data summaries appear in Tables 12 through 14.

Table 17

One Factor Analysis of Variance of Urban/Rural School
Differences on Pre-Scale and Post-Scale Composite
"Socializing Value" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	0.005	1	0.005	0.002
within	209.545	69	3.037	
totals	209.550	70		

One factor analysis of variance of the composite attitude "general educational implications of media study" on each of the independent variables of sex, teacher or student, and type of school, yielded no significant differences, $p < .05$. These data are summarized in ~~Tables~~ Tables 18 through 20.

Table 18

One Factor Analysis of Variance of Sex Differences
on Pre-Scale and Post-Scale Composite "Educational
Implications" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	0.397	1	0.397	0.068
within	402.195	69	5.829	
totals	402.592	70		

One factor analysis of variance of the composite attitude "socializing value of media study" on each of the independent variables of sex, teacher or student, and type of school yielded no significant differences, $p < .05$. Results are summarized in Tables 15 through 17.

Table 15

One Factor Analysis of Variance of Sex Differences on Pre-Scale and Post-Scale Composite "Socializing Value" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	0.005	1	0.005	0.002
within	209.544	69	3.037	
totals	209.549	70		

Table 16

One Factor Analysis of Variance of Teacher/Student Differences on Pre-Scale and Post-Scale Composite "Socializing Value" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	0.747	1	0.747	0.247
within	208.802	69	3.026	
totals	209.549	70		

Table 21

One Factor Analysis of Variance of Sex Differences
on Pre-Scale and Post-Scale Composite "School Board
Significance" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	0.005	1	0.005	0.001
within	308.361	69	4.469	
totals	308.366	70		

Table 22

One Factor Analysis of Variance of Teacher/Student
Differences on Pre-Scale and Post-Scale Composite
"School Board Significance" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	29.345	1	29.345	7.604*
within	279.022	69	4.044	
totals	308.367	70		

*p < .05

Table 23

One Factor Analysis of Variance of Urban/Rural School
Differences on Pre-Scale and Post-Scale Composite
"School Board Significance" Attitude Difference Scores

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
between	7.700	1	7.700	1.767
within	300.667	69	4.357	
totals	308.367	70		

Table 19

One Factor Analysis of Variance of Teacher/Student
Differences on Pre-Scale and Post-Scale Composite
"Educational Implications" Attitude Difference Scores

Source	SS	df	MS	F
between	15.724	1	15.724	2.804
within	386.868	69	5.607	
totals	402.592	70		

Table 20

One Factor Analysis of Variance of Urban/Rural School
Differences on Pre-Scale and Post-Scale Composite
"Educational Implications" Attitude Difference Scores

Source	SS	df	MS	F
between	4.913	1	4.913	0.852
within	397.679	69	5.793	
totals	402.592	70		

One factor analysis of variance of the composite attitude "significance of media study for school boards" on the three independent variables yielded no significant differences on the variables sex and type of school. The results of the one factor analysis on the independent variable teacher or student yielded significant differences, $p < .05$, in favour of teachers. These data are presented in Tables 21 through 23.

Attitudinal relationships on the pre-attitude and post-attitude scales are summarized in matrix form (see Tables-24, 25).

Table 24
Correlations of Pre-Scale Composite
Attitude Scores

	Aesth	Inst	Util	Soc	Impl	Sign
Aesth	1.0000***					
Inst	.4272***	1.0000***				
Util	.5897***	.5197***	1.0000***			
Soc	.3669**	.4768***	.4952***	1.0000***		
Impl	.5638***	.5008***	.5737***	.2893*	1.0000***	
Sign	.4425***	.3496**	.5657***	.4562***	.4602***	1.0000***

* $p < .05$

** $p < .01$

*** $p < .001$

Code of Composite Attitudes

AESTH = aesthetic value

INST = instructional value

UTIL = English utility

SOC = socializing value

IMPL = educational implications

SIGN = school board significance.

Additional Statistical Analysis

Pearson product moment correlation co-efficients (Pearson Rs) were calculated for the pre-achievement and post-achievement test scores, and for the six composite attitudes using pre-scale and post-scale scores. The Pearson R summarizes the relationship between two variables, and indicates the degree to which variation in one variable is related to variation in another.

Pearson R of the pre-achievement and post-achievement test scores is .4565, $p < .001$. Calculation of the coefficient of determination (the amount of variance in the post-achievement test scores attributable to the pre-achievement test scores) demonstrates that the amount of variance attributable to the pre-achievement test is 20.84% (see Figure 3).

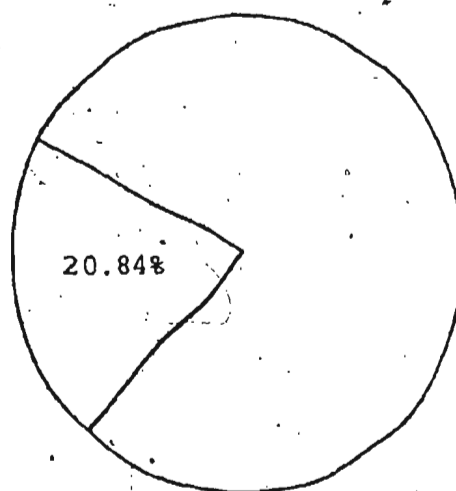


Figure 3

Percentage of Post-Achievement Test Scores
Attributable to Pre-Achievement Test Scores.

Table 25
Correlations of Post-Scale Composite
Attitude Scores

	Paesth	Pinst	Putil	Psoc	Pimpl	Psign
Paesth	1.0000***					
Pinst	.6193***	1.0000***				
Putil	.6596***	.6941***	1.0000***			
Psoc	.6412***	.6168***	.6790***	1.0000***		
Pimpl	.5965***	.4649***	.5616***	.5437***	1.0000***	
Psign	.6015***	.6949***	.7257***	.5258***	.4676***	1.0000***

p < .001

Code of Composite Attitudes

PAESTH = post-aesthetic value.
PINST = post-instructional value
PUTIL = post-English utility
PSOC = post-socializing value
PIMPL = post-educational implications
PSIGN = post-school board significance.

Summary

The descriptive analysis presented in this chapter indicates that participants in the Media Production Workshop increased their knowledge of media techniques and production, and that attitudes toward media study changed in a positive direction.

Results of the analysis of the data, as well as specific conclusions and recommendations, are discussed in Chapter 5.

CHAPTER 5

DISCUSSION OF RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Discussion of Results

The study examined two major questions:

1. Will participation in the Media Production Workshop result in increased knowledge of media techniques?
2. Will participation in the Media Production Workshop result in a change in attitudes toward media, in a positive direction?

In addition, an effort was made to establish that in-service which includes both teachers and students as participants in the learning process can result in a fruitful learning experience for both types of participants.

To investigate these questions, a number of hypotheses were stated and the Media Production Workshop was designed, implemented, and evaluated. The hypotheses were examined through the development of appropriate achievement and attitude instruments, and analysis of the data was completed. The results are presented in conjunction with the hypotheses.

Hypothesis 1, dealing with overall achievement of participants, was accepted. Mean gains on a 10-point scale were 6.127. This indicates that participants changed from the low achievement category to the high achievement category defined in Chapter 1. Participants had a greater knowledge of media techniques following the workshop. Since

Hypotheses 3(b) and 3(c) were accepted. Both teachers and students, and participants from both large urban and small rural schools demonstrated no significant differences in achievement. These results were expected, as both teachers and students and participants from both types of schools had had little or no previous exposure to media skills, and entered the treatment at the same achievement level. As well, participants from urban centers had not had media experiences in education, despite the fact that facilities were more readily available.

Hypotheses 4(a), 4(b) and 4(c) considered the effects of the three independent variables on the composite attitude "aesthetic qualities of media study". All three hypotheses were accepted. There were no significant differences for sex, teacher or student participants, or type of school on those attitude statements concerned with the intrinsic worth and personal benefits of media study.

Hypotheses 5(a), 5(b), and 5(c) examined the effects of the three independent variables on the composite attitude "instructional value of media study". Hypothesis 5(a), sex, was accepted. There were no significant differences between males and females in relation to this attitude.

Hypotheses 5(b) and 5(c) were rejected. Teacher participants displayed greater attitude changes than did students. This was to be expected, as teachers would be more inclined to consider media from an instructional viewpoint than would students.

The independent variable type of school also demonstrated significant differences. Large urban school participants displayed greater attitude change than did small rural schools concerning instructional

the workshop was a total-immersion experience encompassing 30 hours of a 60-hour time period, these gains cannot be attributed to other activities.

Hypothesis 2 considered overall attitude change in a positive direction from pre-attitude to post-attitude scale scores. Mean gains were 24.54 on a 120-point scale, indicating that attitudes did change in a positive direction, thus hypothesis 2 is accepted.

While a gain score of 24.54 implies that attitudes did not change greatly, the structure and scoring of the scale must be considered.

A score of three was assigned to the undecided or "no opinion" response, giving a total score of 90 for this response to all items. To score the undecided category as a zero, however, would have resulted in the majority of participants being assigned scores in the negative categories, thus giving a false impression of the attitudes held prior to the treatment.

Hypotheses 3(a), 3(b), and 3(c), examining the effects of the three independent variables sex, teacher or student participants, and type of school were as follows:

Hypothesis 3(a) was rejected. Females displayed greater gains from pre-achievement to post-achievement test scores. This could be accounted for by the social sex-stereotyping of males and females. Girls generally have less opportunity to participate in mechanical and technical activities, and therefore might feel more enthusiastic about such activities. The novelty of being involved in this type of activity could account for the greater increase in the scores of females.

Hypotheses 8(a), 8(b), and 8(c) examined the effect of the three independent variables on the composite attitude "general educational implications of media study". As there were no significant differences, all three hypotheses were accepted.

While a difference in attitudes was anticipated for teachers and students, the lack of significant difference could be attributed to the fact that the post-attitude scale was completed immediately following the treatment, and participants, having experienced a rigorous two and one half days of media activities, had not had time to consider the broader implications of the media experience.

Hypotheses 9(a), 9(b), and 9(c) considered the effect of the three independent variables on the composite attitude "significance of media study for school boards". Hypotheses 9(a) and 9(c) were accepted, as there were no significant differences.

Hypothesis 9(b), teacher or student participants, was rejected. Teachers demonstrated significantly greater attitude change than did students. This was anticipated, as teachers were more familiar with the role of school boards in the education system, and would more readily see that inclusion of media study in the curriculum would necessitate a greater financial commitment from school boards, greater need for effective in-service programs, and the formulation of policy to change the status of media units from optional to required.

The coefficient of determination calculated on achievement test scores demonstrated that the amount of variation in post-achievement test scores which was not attributable to the pre-achievement test was 79.16%. Since the treatment constituted the only activity during the

value of media study. This finding was attributed to the fact that those in large urban centers are more accustomed to variety in instruction generally, as facilities are more conducive to diversification in both program and instructional methods. Those in rural areas are more likely to have experienced traditional instruction only.

Hypotheses 6(a), 6(b), and 6(c) examined the relationship of the composite attitude "media utility in English studies" and the three independent variables. Hypotheses 6(a), sex, and 6(b) teacher or student participants, were accepted, as there were no significant differences.

Hypothesis 6(c), type of school, was rejected. Significant differences did exist in favor of participants in large urban schools. This was accounted for by the fact that large urban schools have more opportunity to diversify in light of staff and facilities, and participants could see that utilization of media in English studies would not present any administrative problems.

Hypotheses 7(a), 7(b), and 7(c) examined the relationship of the three independent variables to the composite attitude "socializing value of media study". All three hypotheses were accepted, as there were no significant differences. This has significant implications for the study, as all participants, regardless of sex, teacher or student status, and type of school, held similar attitudes concerning group work, teacher/student cooperative efforts, and the acceptance of teachers as participants in the learning process. This indicates that there are no adverse attitudes about the inclusion of students in this type of in-service education.

therefore, there was greater opportunity to enjoy the learning process, and the novelty of the workshop experience generated enthusiasm on the part of the participants.

The study was designed for teachers and students of senior high school English only; thus the findings might not apply to other populations.

No follow-up studies were done to determine whether or not results were maintained over a period of time, nor were follow-up studies carried out to investigate whether or not the change in attitudes on the part of teachers led to increased utilization of media.

Within the limitations of the study, the findings of this study are as follows:

1. Participation in the study resulted in both categories of participants, both teachers and students, increasing their factual knowledge of media and learning a variety of media techniques. At the conclusion of the workshop most participants could perform the following tasks:

- (a) load 35 mm. and instant cameras
- (b) use both types of cameras
- (c) operate a cassette tape recorder
- (d) operate an overhead projector
- (e) operate a 16 mm. film projector
- (f) create basic graphics
- (g) design, plan, and produce a mediated show.

As well, many participants could set up portable video-tape equipment, record on video-tape, and use a stereo reel-to-reel tape recorder.

two and one half days, it is reasonable to assume that the treatment was the major contributor to the post-achievement score gains.

Attitude statements were integrated into six composite attitudes through content factorization. Correlation of pre-attitude scores for the six composite attitudes are presented in Table 24. Correlation of post-attitude scores for the six composite attitudes are presented in Table 25. These measures indicate that attitude changes in one area influenced attitude changes in another area.

Post-attitude correlations indicate that "instructional" attitudes were more highly correlated with "utilization" attitudes and "significance" attitudes.

"Aesthetic" attitudes were more highly correlated with "instructional" attitudes, "utilization" attitudes, and "significance" attitudes.

"Socializing" attitudes were more highly correlated with all five composite attitudes. Participants indicated that the socializing value of the learning environment provided by the workshop interacted with all other attitudinal aspects measured.

Conclusions

Prior to the drawing of conclusions, the generalizability of the findings must be considered in light of the limitations of the study.

This study was a field study conducted within the school system at the convenience of administrators and school board personnel, therefore exhaustive experimental conditions could not be established.

The study offered a departure from the regular routine and a more informal atmosphere than the regular classroom environment,

suitable for other grades. It is recommended that the workshop be used in all high school English grades.

3. Because of the success of the workshop in providing an enjoyable and effective learning experience, and particularly since the workshop demands no loss of student instructional time and minimal financial outlay, it is recommended that school board personnel seriously consider using this workshop as an introduction to each media unit in the high school English program.
4. It is recommended that this study be replicated using different treatments and/or a control group, thus provide for a more conclusive statistical analysis of the data.
5. It is recommended that the attitude survey be changed to a "forced response" scale. This deletion of the allowance for a non-opinion would alter the data considerably and provide greater differentiation in pre-attitude and post-attitude scores.
6. Other variables such as ability, personal interests, and socio-economic status could be considered. A study which examined these variables could provide interesting and valuable information. It is recommended that such a study be done.
7. It is recommended that the workshop be extended to a short course of two weeks duration. This would provide time and opportunity for the practice of the newly acquired skills of participants.
8. Should this study be replicated, it is recommended that the investigator posttest on a delayed basis to determine whether or not skills and knowledge were maintained. As well, the

2. The workshop, because of its total-immersion nature, afforded little opportunity for distractions. This factor probably contributed to the change in attitudes in such a short period of time. Participation demanded long hours and hard work, but the atmosphere was informal, relaxed, and friendly. As all participants had had no previous experience with media production, there was also much enthusiasm and excitement. Participants did recognize the more serious implications of the workshop as well, however. Many could state sound educational reasons for the inclusion of media in school programs.

3. Both types of participants enjoyed the opportunity to work together. Teachers felt no discomfort in adopting the role of learner, neither did they dominate in the planning of projects by the small groups. Teachers were generally happy to work with students on a different basis than the regular classroom situation affords. Students also responded well to this new relationship, and many felt that they would appreciate their teachers more as persons in the future.

Recommendations

Because this was a field study with limited generalizability, the results call for further research:

1. The workshop was of fixed format, of two and one half days duration. No attempt was made to test the workshop over a longer period of time. It is recommended that the workshop be tested in this manner in the future.
2. The workshop involved students of grade eleven only. There is no reason why, with minor adaptations, the workshop would not be

SELECTED REFERENCES

- Arnheim, R. Visual Thinking. London: Faber & Faber, 1970.
- Bishop, L. J. Inservice Education: Balance and Thrust: Educational Leadership, 1967, 25, 10-11.
- Cameron, J. and Plattor, E. The Leaf Not the Tree. Toronto: Gage Publishing Ltd., 1971.
- Campbell, D. T., and Stanley, J. C. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally College Publishing Company, 1963.
- Carson, R. B. (Ed.). Change and Innovation (Vol. 2). Calgary: University of Calgary, Department of Educational Administration, 1968.
- Carson, R. B., and Olivia, F. D. Issue Analysis: Implications for Administration. In R. B. Carson (Ed.), Change and Innovation (Vol. 2). Calgary: University of Calgary, Department of Educational Administration, 1968.
- Collective Agreement (Article 18.04). Agreement between Treasury Board and the Federation of School Boards of Newfoundland, and the Newfoundland Teachers' Association. St. John's, Newfoundland: Government of Newfoundland and Labrador, 1977.
- Debes, J. L. Keynote address, International Visual Literacy Association, 1976. In J. Shook and S. Betle, Meeting the Challenge of the New Democracy of Visual Literacy. Audiovisual Instruction, 1976, 21, 43.
- Dondis, D. A. A Primer of Visual Literacy. Cambridge, Massachusetts: MIT Press, 1973.
- English Curriculum Guide: St. John's, Newfoundland: Government of Newfoundland and Labrador, Department of Education, 1973.
- Eraut, M. In-service Education for Innovation. London: National Council for Educational Technology, 1972.
- Fransecky, R. B., and Debes, J. L. Visual Literacy: A Way to Learn - A Way to Teach. Washington: Association for Educational Communications and Technology, 1972.
- Finch, A. Growth In-Service Education Programs that Work. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1969.

investigator might conduct follow-up interviews at a later date to determine whether or not changes in attitude toward media resulted in greater use of media by teachers in the classroom.

Summary

The development of in-service programs which are effective, and which can be implemented by educational authorities with minimal problems is a basic educational need. Teachers in the field need experiences which will keep alive their enthusiasm and their desire to provide the best education possible for those in their care. The Media Production Workshop provided such an experience.

- O'Rourke, M. A., and Burton, W. H. Workshops for Teachers: A Handbook for All Participants. New York: Appleton-Century-Crofts Inc., 1957.
- Pellegrin, R. J. Educational Organizations and Problems of Innovation. In R. B. Carson (Ed.), Change and Innovation (Vol. 2). Calgary: University of Calgary, Department of Educational Administration, 1968.
- Plank, J. F. Evaluation of In-service Educational Programs for Teachers in Selected Unified School Districts. Unpublished doctoral dissertation, University of California at Los Angeles, 1960.
- Rogers, E. M. Diffusion of Innovations. New York: Free Press, 1967.
- Rubin, L. J. (Ed.). Improving In-Service Education: Proposals and Procedures for Change. Boston: Allyn & Bacon Inc., 1971.
- Schillinger, J. F. Media are Tools for Children. Audiovisual Instruction, 1976, 21, 67-69.
- Selltiz, C., Jahoda, M., Deutsch, M., and Cook, S. W. Research Methods in Social Relations. New York: Holt, Rinehart, & Winston, 1967.
- Stiehl, R. E. A New Look at the Old Term Paper. Audiovisual Instruction, 1976, 21, 72-73.
- Stoops, E., and Johnson, R. E. Elementary School Administration. Toronto: McGraw-Hill Book Company, 1967.
- Sumner, W. L. Visual Methods in Education. Oxford: Basil Blackwell, 1956.
- Teringo, J. R. and Sweet, R. J. The Mind Benders. Toronto: McGraw-Hill Ryerson Ltd., 1969.

Frymier, J. R. Fostering Educational Change. Columbus, Ohio: Charles E. Merrill Publishing Company, 1969.

Harris, B. M. In-service Growth - The Essential Requirement. Educational Leadership, 1966, 24, 257-260.

Reichberger, R. L. Toward Humanizing the Change Process in Schools. College Student Journal, 1972, 6, 5-7.

Inservice Education of Teachers. Washington: National Education Association, Research Division, 1966.

Johnson, D. J. Teachers' In-service Education. Oxford: Permagon Press Ltd., 1971.

Jones, E. Personal records, August 4, 1977.

Jones, E. Review of Work of Consultant in English and English Curriculum Development Grades 7-11. Department of Education. Unpublished report, 1975.

Lasser, M. L. A Humanist Looks at Visual Literacy. Audiovisual Instruction, 1975, 20, 49-50.

Lippitt, R. Roles and Processes in Curriculum Development and Change. In R. R. Leeper (Ed.), Strategy for Curriculum Change. Washington: Association for Supervision and Curriculum Development, 1965.

Marcouse, R. Using Objects: Visual Awareness and Visual Learning in the Museum and Classroom. Toronto: Van Nostrand Reinhold Company, 1974.

McGuire, E. Development of an In-Service Workshop Model to Effect Change in Teacher Behaviour and Attitudes. Doctoral Dissertation, University of Minnesota, 1971.

McLuhan, M. Understanding Media: The Extensions of Man. Toronto: McGraw-Hill Book Company, 1965.

Miami-Dade Junior College. Curriculum Development Workshop - Seminar in Media. Final Report, 1973.

Miel, A. In-Service Education Re-examined. The National Elementary Principal, 1962, 41, 8-10.

Miles, M. (Ed.). Innovation in Education. New York: Columbia University, Bureau of Publications, 1964.

Morrish, I. Aspects of Educational Change. New York: John Wiley & Sons, 1976.

APPENDIX A

Media Production Workshop

Teacher Guide

A Media Production Workshop

Teacher Guide

Mary Kennedy

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Preface

This guidebook has taken shape over a one year period, but its roots extend back to six years ago. While teaching English to senior high school students on St. Brendan's I became interested in media production through Memorial University's Extension Service field staff.

As many of my students were not print oriented it seemed logical to provide other means of communicating their ideas, thoughts, and impressions, thus media became integrated into the English program.

While sensing that this was good, I of course had no definitive proof that media involvement was of benefit to my students. Concern for fellow teachers and their reluctance to work with media existed, but beyond encouraging participation among staff little could be done lacking proof of success. The past two years of graduate study provided the opportunity to delve further into this matter.

As a teacher with varied experience over the past twelve years, I can assure you that the Media Production Workshop will prove to be one of the most exciting learning experiences your students will share. They will experience the joy of communicating through media which are meaningful to them, the involvement with new and different processes, the fun provided through group work and the informal learning environment, and success and pride in their accomplishments.

What I have presented in the following pages are plans and techniques for presenting a media workshop for students. I want you to share in the experiences which media production affords. Maybe you too will find

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General Information

The Background

The Media and Communications Workshop was designed as partial fulfillment of the requirements for the degree of Master of Education at Memorial University. It was tested in the Gander-Bonavista area and in St. John's.

The workshop was designed for two purposes. I felt that English teachers generally were not taking full advantage of media in teaching high school English courses, thus the workshop was intended to provide in-service education for English teachers in the hope that involvement in media production would spark an interest in using media to a greater extent in the classroom.

As well the workshop was designed so that English teachers would be able to conduct it with their high school classes. For this reason a teacher guide outlining activities, equipment, procedures, and background information has been provided.

that media utilization in English studies is not a frill, but a valid learning experience.

Mary Kennedy

Memorial University of Newfoundland, 1978.

Visual literacy, the area of education concerned with the development of visual competencies through seeing and integrating other sensory experiences, has sound psychological foundations which form the basis of child-centered learning. They are:

1. Child conceptualization emanates naturally from a progression of experiences which form a framework for later learning.
2. A child begins at an early age to develop a visual vocabulary which takes on meaning to the extent that he can interact with the items and processes seen.
3. In the process of developing a visual language children need much practice in ordering and sequencing visually if they are to order and sequence ideas verbally later on.

Why media? Because media study makes learning more meaningful in the 1970's. Our students are living in a highly visual age, brought about by advances in technology. Satellites ring the globe with visual information making the world the new classroom (Nuell, 1977). We as educators can no longer afford to remain totally committed to verbal literacy only, when those in our care receive continuous messages through visual media such as television, films, and magazine advertising, all of which are more persuasive and pervasive than the messages we transmit.

Why media? Because media study is strongly related to English study. Both are based in communications. The purposes of visual literacy training apply directly to those of verbal literacy.

1. To teach children to read visuals with skill.
2. To teach children to 'write' with visuals.

Why Media?

Never before in the history of education has it been so necessary to diversify in our schools, our programs, our course content, and our methods. An issue long neglected is the redefinition of the role of media in education. The need to deal with this issue is the premise upon which the development of the Media Production Workshop is based. It is hoped that this guide will clarify the question of media study in view of new developments, trends, and practices.

If educators can be persuaded to consider media in a new light, leaving behind the traditional "audiovisual aid" image, I believe they will develop an increased dependence on media "--not as enrichment devices to be used if time permits, but rather as carefully planned and integrated parts of the teaching-learning experience." (Kemp, 1968, p. 3).

Media is still considered to be an instructional aid by most teachers. How often is one confronted with "I think I'll show a filmstrip on this" or "There's a film available which might be okay for my grade tens" or "You know that film you showed in grade six last week. I think I'll show it in grade eleven Friday afternoon. They need a break".

Those involved with the study of media are aware that this area should not continue to be considered a supplement to teacher instruction, rather it can be the instruction. This change in role is being clarified through emphasis on sensory experiences in learning (Kemp, 1968).

Why media? Because involvement with media helps students to learn.

The world in which our students will play and work is one of constant television, one in which billions are spent by advertisers bringing their message to the masses, one of instant information and astounding electronic gadgetry. We are doing these students a grave disservice by ignoring the reality of their world.

There is a world of difference between the modern home environment of integrated electric information and the classroom. Today's television child is attuned to up-to-the-minute "adult" news--inflation, rioting, war, taxes, crime, bathing beauties--and is bewildered when he enters the nineteenth century environment that still characterizes the educational establishment, where information is scarce but ordered and structured by fragmented, classified patterns, subjects, and schedules.

(McLuhan & Fiore, 1967)

Why media? Because we love and care for those we teach. We want to make their learning experiences as meaningful as possible, as exciting and stimulating as the world around them; we want to open doors previously barred to them; we exult in the glow which accompanies learning, the light in the eyes when a new concept is arrived at. We are teachers, and as such we must grow with our students and our world.

References

- Fransecky, R. B., & Debes, J. L. Visual Literacy: A Way to Learn--A Way to Teach. Washington: Association for Educational Communications and Technology, 1972.
- Kemp, J. E. Planning and Producing Audiovisual Materials. Scranton, Pennsylvania: Chandler Publishing Company, 1968.
- McLuhan, M., & Fiore, Q. The Medium is the Massage. Toronto: Bantam Books, Inc., 1967.
- Nuell, L. Visual Literacy Explained. Media Message, 1977, 6, 8-10.
- Turbayne, C. M. The Myth of Metaphor. Columbia: University of South Carolina Press, 1971.

3. To teach children to translate from visual language to verbal language and vice versa.

Fransecky and Debes (1972) see a strong relationship between visual and verbal skills, and make a case for the development of both. "Far from being a 'retreat from the word' visual literacy activities draw on a multi-language model--a model firmly grounded in the total experience of children" (p. 11).

Researchers in visual literacy have been focussing on the effects of visual literacy programs on oral and written language facility. Studies include analysis and definition of the relationship between visual and verbal language systems (Turbayne, 1970). "Researchers have posited that when children are trained to use their existing 'passive visual vocabulary' they can handle verbal language processes with more ease and purpose." (Fransecky & Debes, 1972, p. 23).

Why media? Because media work is exciting, and offers an alternative to traditional learning experiences. Involvement of the learner in such media experiences as film study sessions, television communication techniques, and the production of mediated programs brings novelty to the learning process. It provides a welcome change from the normal classroom routine. The excitement generated by production work accompanied by the thrill of seeing the finished product provides strong motivation. Media lends itself readily to group activities, the sharing of tasks and responsibilities, and the fostering of a cooperative approach among the learners. The classroom comes alive.

Why media? Because study of and involvement with media will prepare students more fully to live as functioning members of today's society.

3. Production. Participants are expected to complete group productions using suitable media.

4. Awareness. Through the viewing of selected films, slides, and other materials, participants are made aware of the benefits of using media in high school English courses.

The Workshop

The workshop is intended to provide a total immersion experience. Participants are involved for a total of thirty hours, over a two and one half day period. Whether or not teachers wish to conduct the workshop in this manner or diffuse the thirty hour period throughout a number of days should be decided on the basis of teaching constraints and school schedules. A sample format is included in the teacher guide, but this can be adapted to meet individual needs.

The ideal number of participants is a maximum of twenty-five. This permits the formation of several small groups. This number can also be managed by two resource people.

Expertise in media is not really a necessary attribute of resource people. The media productions undertaken can be simple, utilizing available equipment and resources, yet rewarding for participants. Thorough planning is required, however. The teacher guide provides instructions in the processes involved as well as suggestions on various aspects of production.

A variety of activities is planned for the workshop. Generally there are four streams as follows:

1. Communications. The medium and message aspects of communications are stressed through discussions, and communications as a two-way process is demonstrated.

2. Equipment. Participants are given the opportunity to use a variety of equipment. Practical tasks involving use of equipment are provided so that learning will be meaningful.

Workshop Format

Introduction

The workshop includes seven sessions of approximately four hours each. In testing the workshop, these sessions ran consecutively for two and one half days, beginning with an evening session, as follows:

Session One	Evening
Session Two	Morning
Session Three	Afternoon
Session Four	Evening
Session Five	Morning
Session Six	Afternoon
Session Seven	Evening

A tightly scheduled agenda denoting specific activities for all time slots is not feasible, as production work seems to generate its own momentum which should not be interrupted. For this reason, a general format suggesting time requirements of each activity is deemed more suitable to the smooth operation of the workshop.

Workshop Aims

General Aims

The general aims of the workshop are as follows:

1. To provide participants with the opportunity to acquire the skills necessary to operate audiovisual equipment.
2. To provide participants with the opportunity to produce media software.
3. To demonstrate some of the advantages of media utilization in English education.
4. To increase awareness of the communication process.

Specific Objectives

The specific objectives of the workshop are as follows:

1. Participants will be capable of operating equipment used during the workshop.
2. Participants will know the proper procedure for planning and producing materials.
3. Participants will have an increased awareness of the benefits of using media in English education.
4. Participants will gain insight into the basic components of the communication process.
5. Participants will gain an awareness of the benefits of enjoyment in the learning process.

Workshop Schedule

Session One: Evening

1. Communications Experience: Colour-coded Name Tags. (60 min.)

This activity gives participants the opportunity to meet one another, and creates a spirit of friendship and informality.

2. Instructions: Workshop Information Kit. (30 min.)

This session gives participants an opportunity to examine the hand-outs, and ask questions on the workshop.

3. Production Orientation. (45 min.)

Types of media productions, equipment orientation, and production techniques are dealt with.

4. Discussion: Visual literacy and communications. (20 min.)

The concept of visual literacy is introduced, and a discussion on the communication process follows.

5. Viewing Session: Telempathy. (30 min.)

This film presents a detailed study of television as a medium, and demonstrates how television communicates to the masses.

6. Discussion: Telempathy. (30 min.)

This discussion involves the impact of mass-media on society.

7. Small groups. (15 min.)

Participants are divided into small groups. These groups will work together on productions throughout the workshop.

Session Two: Morning

1. Instruction: Storyboards and Scripts. (60 min.)

Groups are instructed in storyboarding and scripting, and given basic plot outlines with which to practice.

2. Write-on Film. (15 min.)

The process of producing movies through writing directly on bleached film is introduced. Film is provided for those with free time during productions.

3. Viewing Session: Student Productions. (30 min.)

A number of short productions completed by students in media courses at Memorial University are presented, so that participants can see the type of projects which can be completed in various media.

4. Production Choice. (45 min.)

Groups decide on productions to be completed. Specific tasks include choice of medium, the title, and a basic plot outline.

5. Production Tasks. (30 min.)

Groups list the tasks involved in the production, and assign members to specific tasks.

6. Viewing Session: Very nice, very nice. (10 min.)

7. Discussion: Very nice, very nice.

This discussion involves the personal aspect of communications through film, television, and audio experiences.

Emphasis is placed on the fact that one's view of this film is coloured by what is within the viewer.

Session Three: Afternoon

1. Production Planning: Storyboards and Scripts. (90 min.)

Small groups complete storyboards or scripts, so that production work can commence.

2. Production. (120 min.)

Participants are involved in production tasks.

Session Four: Evening

1. Production (120 min.)

This session continues with production tasks.

2. Viewing Session: Half-Masted Schooner

Carousel

Mosaic

Condensed Cream of Beatles.

3. Discussion: Films. (30 min.)

Considers film as an art form, and discusses the techniques of film as a medium.

Session Five: Morning

1. Production (180 min.)

This session continues with production tasks. All film must be shot so that it can be developed.

Session Six: Afternoon

1. Production (240 min.)

Production tasks completed, and components of production assembled.

Session Seven: Evening

1. Discussion: Workshop (30 min.)

This discussion should include a verbal evaluation of the workshop experience, and future plans for media work in English.

2. Viewing session and discussion: Productions. (60 min.)

Productions completed during the workshop are viewed and discussed.

3. Workshop Clean-up. (45 min.)

Participants help in general clean-up and packing of equipment and materials.

4. Social. (60 min.)

Participants have a social hour with appropriate refreshments.

The Communication Process

Who Communicator	Says What Message	To Whom Audience	How Medium
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Who: The Communicator

1. Is he biased for or against the message?
2. Do gestures and expressions influence what he is saying?
3. Is he expressing his views, or the views of a sponsoring agency?
4. Do personal beliefs influence his message?
5. Is he convincing?
6. Is he using media techniques to sell his message?
7. Is he knowledgeable about the message?

What: The Message

1. Is it something important and significant?
2. Is the content presented in an orderly sequence?
3. Does the message suit the audience?
4. Is it biased?
5. Are the basic components repeated to emphasize the message?
6. Is it presented with style?
7. Does it have clarity of purpose?

Whom: The Audience

1. At whom is the message directed?
2. What is already known about the message?

3. Does the message conflict with traditional values and beliefs held by the audience?
4. Is the message suited to the intellectual level of the audience?
5. Is the message suited to the social and economic status of the audience?

How: The Medium

1. Which media are available for the presentation of the message?
2. What are the limitations of these media?
3. Which media will present the message in the most simple, yet complete form?
4. Which media are superior technically?
5. What is the best way of presenting the message?

The Storyboard Process

The storyboard process is vital to the planning of any media production. It has three components; a sketch of the visual, a description of the visual, and the narration.

Once a decision has been reached on the topic to be presented, a basic plot outline should be completed. This is simply a general sketch of the points to be treated in the production.

Example of pre-planning

Topic: Winter

- Basic Plot Outline:
1. General statement on the beauty of winter
 2. Winter sports: skiing, skating, toboggaming
 3. Children and winter: snowballs, frolicking
 4. Winter is quiet: country scenes, wooded trails
 5. Winter is for the young, and the young at heart

Upon the completion of a basic plot outline, enough development exists to begin the storyboard process.

Example: Storyboard Card

Draw sketch of visual here	Project _____ Card no. _____ Production notes: _____
Narration: _____	


Begin by choosing the first visual. Draw a sketch of this visual in the box on the card. In the space to the side of the box, marked production notes, describe the visual. This verbal description is necessary for two reasons:

1. The sketch will not give specific information as the angle of the shot, the background, or the lighting.
2. The production could involve a number of people, thus the person shooting the visuals may not be the one who completed the storyboard.

The next task is to decide upon the audio which will accompany the visual. This could be in the form of music for the beginning scenes, or narration may begin with the first visual. Audio is noted in the narration section of each card.

Each card has space for two numbers at the top right corner. The space marked project is designed to record the production in progress. This is of value to those working on more than one production simultaneously, or for filing purposes. The space marked No. is designed for sequencing of the production.

Example: Completed Storyboard Card.

	<p>Project. 1. No. 1.</p> <p>Production notes: long shot, winter scene. Hills and trees covered with snow. Later afternoon, natural lighting.</p> <p>Narration: Background music: Color My World. Voice over: Winter means many things to many people.</p>
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Basic Plot Outlines

To provide practice at storyboarding and scripting, basic plot outlines are necessary. These basic plot outlines should include specific information about a short episode or scene, so that participants can develop a plan for a short production from the information given.

Five examples of basic plot outlines follow. These can be utilized, or you may wish to develop such outlines yourself, to meet the needs of your particular group.

Basic Outline 1.

Title: _____

Medium: Videotape Recording

Characters: Three: Man, Wife, Teenage Son.

Setting: Living Room

Synopsis: The son has failed Grade Ten. Mother supports her son, and does not want Father to be too harsh with him. Father is very angry with both mother and son.

Basic Outline 2.

Title: _____

Medium: Slide Tape

Characters: One: Narrator

Setting: Country Scene

Synopsis: A poetic description of autumn, presented through words, music, and visual images.

Basic Outline 3.

Title: _____

Medium: Audio tape

Characters: Two: Teacher, Learner.

Setting: Classroom.

Synopsis: The teacher is explaining to the student how to use a cassette tape recorder.

Basic Outline 4.

Title: _____

Medium: Slide Tape

Characters: One: Narrator

Setting: St. John's Waterfront

Synopsis: The narrator will provide a commentary on the sights and sounds of the waterfront and surrounding areas.

Basic Outline 5.

Title: _____

Medium: Videotape Recording

Characters: Three: Moderator, Two Guests

Setting: TV Studio

Synopsis: The moderator will ask the guests to respond to a number of questions and comments on Joey Smallwood.

Film Study

The recommended approach to the film study sessions is to relate the film to the experience of the viewer. Rather than requiring an objective analysis of the film consisting of attempts to decide upon the theme, how the message was related, and what the film-maker meant to say, a subjective analysis based on the effect of the film on the viewer is desired. The discussion leader should emphasize that we get from a film experience what we bring to it, hence a subjective impression relating to past experiences is valid.

A number of questions should be asked of individuals, and varying answers and opinions will result in a lively discussion as each member of the group related the film to his world.

Lead Questions

1. What was the most memorable visual experience for you?
2. Why did this particular visual image attract your attention?
3. Is there anything you did not like about the film?
4. Why did you find this disagreeable?
5. What did the film say to you?
6. Why do you think the film conveyed this message to you?
7. What is your overall sensory impression of this film?
8. Why did or did not the film provide a meaningful experience for you?

Communications Experiences

An essential ingredient of this workshop is communications, particularly for the students involved. This facet can be over-shadowed by the excitement of media production.

To ensure that the communications facet will remain as memorable in retrospect as the media facet, activities involving participants should be included. A sample of such activities follows.

Communications Experience 1: Colour-Coded Name Tags

This activity should be the first of the workshop. Name tags of different colours are distributed, ensuring that two or four of each colour are included. Participants are instructed to meet with a person wearing the same colour name tag and chat for five minutes. During this time they will be expected to discover a few interesting facts about their partner. At the signal, participants will return to the large group and in turn introduce their partners, sharing with the whole group something of interest they have discovered.

The purposes of this experience are:

1. To create a spirit of friendship and cooperation
2. To provide all participants with the opportunity to communicate verbally.

Communications Experience 2: People Problem

Participants are divided into small groups of four to six, and are given a problem involving a real-life situation in which an island

community is to lose all its resource people because of a provincial disaster. These people are considered essential to the smooth running of the community. When the government decides to return these people over a period of time, and one at a time, participants must decide which resource people are most urgently needed, and as a group come to an agreement on the order in which the resource people will be returned. A sample game sheet follows.

The purposes of this experience are:

1. To foster a spirit of cooperation in the communication process.
2. To emphasize the necessity of pooling ideas in a problem-solving situation.

THE PEOPLE PROBLEM

You live on a small island in Newfoundland. Your province has just suffered a major disaster, but your island, along with all other island communities around the coast has remained unharmed. A new government has just declared a state of emergency and all islands must contribute manpower with expertise to stabilize mainland communities. The following is a list of people who have been removed from your island. After six months these people will be returned, one at a time, every three months. Please rank the people according to the order in which you wish them returned to your community.

_____ Clergyman	_____ Dentist
_____ Teacher	_____ Postal Worker
_____ Merchant	_____ Social Worker
_____ Ferry Operator	_____ Beautician
_____ Hydro Worker	_____ Highway Worker
_____ Telephone Worker	_____ Oil Agent
_____ Welfare Officer	_____ Liquor Agent
_____ Doctor	_____ Policeman
_____ Nurse	_____ Fireman
_____ Motel Operator	_____ Magistrate

Communications Experience 3: Rumour Game.

A resource person writes a sentence on the flip chart prior to this activity, and covers it with another sheet of paper. Participants sit in circle formation. The resource person begins the experience by whispering the sentence to the person seated next to him. Each person in turn whispers the sentence to the next person just once. The last person in the group stands and reports what he has heard, which is likely to be very different from the original sentence. The resource person then exposes the sentence on the flip chart, and a discussion on this aspect of communications follows.

The purposes of this experience are:

1. To emphasize the need for clarity in communications.
2. To emphasize the importance of listening skills in the communications process.
3. To demonstrate the ease with which communications can become distorted.

Sample Sentence.

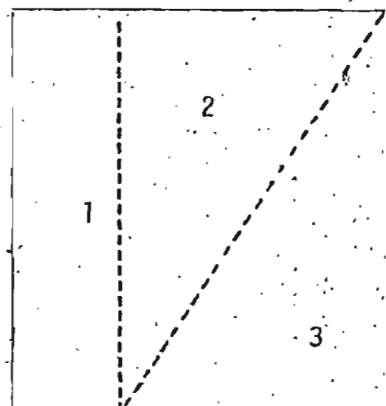
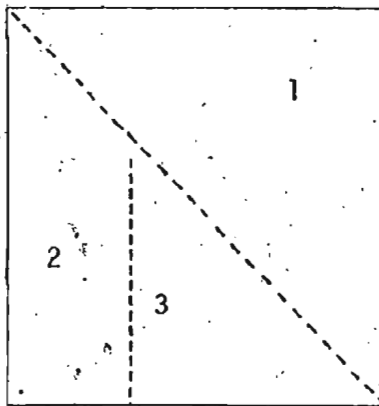
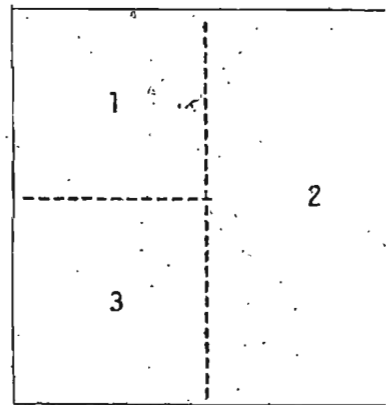
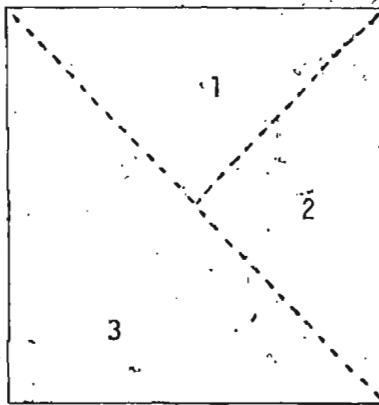
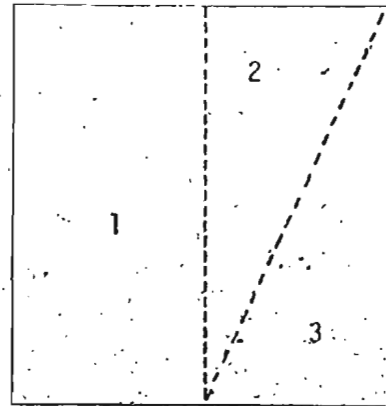
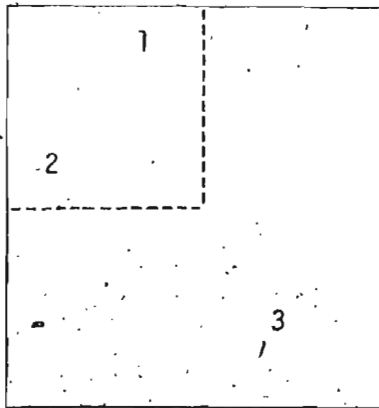
Johnny stubbed his toe when he kicked the door.

Communications Experience 4: Squares.

This game is played in small groups. To each group of six distribute an envelope containing eighteen pieces of cardboard, cut in different shapes. Have a member of the group distribute the eighteen pieces, so that each person has three.

Five rules need to be explained.

1. No verbal communication is permitted.



2. No non-verbal communication is permitted.
3. Any group member may give to any other members some or all of his pieces.
4. If any or all pieces are offered, the recipient must accept them.
5. The recipient may then pass any or all his pieces to someone else.

The game is completed when each group member has completed a square. All six squares must be the same size.

The purposes of this game are:

1. To demonstrate the importance of communications.
2. To emphasize the need for cooperation and sharing, if man is to function socially.

This game can be played with groups of five by distributing only fifteen pieces, or groups of four by distributing only twelve pieces.

The pieces and completed squares can be seen in the following diagram.

Resource Materials

Six films, plus a selection of student-produced materials, are recommended for use in the workshop. These materials are available from a variety of sources in St. John's, as follows:

Center for Audio Visual Education (CAVE)
Memorial University

Instructional Materials Division
Department of Education.

National Film Board
Pleasantville.

Library,
Arts and Culture Center.

The films, with sources for each, are as follows:

1. Telempathy. Center for Audio Visual Education.
2. Mosaic. Center for Audio Visual Education.
3. Carousel. National Film Board.
4. Half-Masted Schooner. Instructional Materials Division.
5. Very nice, very nice. Center for Audio Visual Education.
6. Condensed Cream of Beatles. Library, Arts and Culture Center.

A variety of student productions are available through the Division of Learning Resources of the Faculty of Education, Memorial University of Newfoundland.

Workshop Equipment and Materials.

The following is a list of equipment and materials used in the workshop. Numbers of pieces and amounts are not given, as this varies with the number of participants.

It should be noted that the workshop can be held with much less sophisticated equipment and materials, although this would limit the scope of media productions undertaken by participants.

Equipment	Materials
Portable Videotape Recorder	Bleached 16mm Film
Slide Projector	Slide Mounts
Slide Mount Machine	Transparency Mounts
Slide Sorter Tray	Transparency Acetate
Visualmaker Kit	Blank Cassette Tapes
Instamatic Camera	Records
Polaroid Camera	Blank Videotapes
Cassette Recorder	Reel to Reel Tapes
Reel to Reel Recorder	Film Supplies
Record Player	Spare Projector Lamps
Overhead Projector	Flash Cubes
16mm Movie Projector	Construction Paper
Filmstrip Projector	Mounting Board
Viewing Screen	Newsprint
Microphone	Rub-on Letters
Flip-Chart Stand	Masking Tape
Take-up Reel	Felt-tip Markers
Extension Cord	Storyboard Cards

3. Language, Signs, and Symbols. New York: Center for the Humanities.
4. Toward the Year 2000. New York: Center for the Humanities.

Filmstrips

1. At Issue: Persuasion and Propaganda. New York: Schloot Productions.
2. Lifestyle 2000: Inquiry into the Future. Chicago: Denoyer-Geppert.
3. Mass Media: Impact on a Nation. Pleasantville, New York: Guidance Associates.
4. People to People: Communicating with Each Other. Santa Ana: Doubleday Multi-Media, Inc.

Multi-Media Kits

1. Advertising, the Image Makers. Columbus, Ohio: Xerox Educational Publications.
2. Do-It-Yourself Multi-Media Kit. Stanford, California: Multi-Media Productions.

16 mm Films

1. Automatic. New York: Phoenix Films.
2. The Medium is the Massage, You Know. New York: National Film Board.
3. Terminal Self. Vermont, Los Angeles: United World Films.

Materials Display

An interesting and valuable asset to any workshop is a materials display. This tends to become a quiet corner where participants can browse, and be introduced to interesting materials available for use.

People tend to visit display areas during coffee breaks or spare moments. If it is possible, a display area should be a part of the workshop.

The following are materials selected for the Media and Communications Workshop:

Books

1. Bryars, G. and Hall, G. This Book is about Communication. New York: McGraw-Hill Company, 1971.
2. Gabriel, J. Thinking about Television. London: Oxford University Press, 1973.
3. Krupar, K. R. Communications Games. New York: Macmillan Publishing Company, 1974.
4. McLuhan, M. and Fiore, Q. The Medium is the Message. New York: Bantam Books, 1967.
5. Minor, E. and Frye, H. R. Techniques for Producing Visual Instructional Media. New York: McGraw-Hill Company, 1970.
6. Wilkinson, C. E. Educational Media and You. Toronto: G. L. C. Educational Materials and Services, 1971.

Slide-Tape Kits

1. Media and Meaning. New York: Center for the Humanities.
2. Human Values in an Age of Technology. New York: Center for the Humanities.

Marcourcé, R. Using Objects. Toronto: Van Nostrand Reinhold Company, 1974.

McLuhan, M. Understanding Media: The Extensions of Man. Toronto: McGraw-Hill Book Company, 1965.

McLuhan, M., & Fiore, Q. The Medium is the Message. Toronto: Bantam Books, Inc., 1967.

Nuell, L. Visual Literacy Explained. Media Message, 1977, 6, 8-10.

Schillinger, J. F. Media are Tools for Children. Audiovisual Instruction, 1975, 20, 67-68.

Schramm, W., Lyle, J., & Parker, E. B. Television in the Lives of Our Children. Stanford, California: Stanford University Press, 1972.

Slade, M. Language of Change--Moving Images of Man. Toronto: Holt, Rinehart, & Winston, 1970.

Stiehl, R. E. A New Look at the Old Term Paper. Audiovisual Instruction, 1976, 21, 72-73.

Theall, D. F. The Medium is the Rear View Mirror. Montreal: McGill-Queens University Press, 1971.

Toffler, A. Future Shock. New York: Random House, 1970.

Turbayne, C. M. The Myth of Metaphor. Columbia: University of South Carolina Press, 1971.

Williams, C. M., & Debes, J. L. (Eds.). Proceedings: First National Conference on Visual Literacy. New York: Pitman Publishing Corporation, 1970.

Recommended Readings

The following is a brief list of selected readings in media.

These have been chosen as suitable introductions to the field for those interested in knowing more about media in education.

Abbey, D. S. Now See Hear. Toronto: Ontario Institute for Studies in Education, 1973.

Allen, D. The Electric Humanities: Patterns for Teaching Mass Media And Popular Culture. Dayton, Ohio: George A. Pflaum, 1971.

Aranguren, J. L. Human Communication. New York: McGraw-Hill Book Company, 1967.

Arnheim, R. Visual Thinking. London: Faber & Faber, 1970.

Ball, J., & Byrnes, F. C. (Eds.). Research, Principles and Practices in Visual Communication. Washington: Association for Educational Communications and Technology, 1960.

Debes, J. L. Meeting the Challenge of the New Democracy of Visual Literacy. Audiovisual Instruction, 1976, 21, 43.

Donis, A. D. A Primer of Visual Literacy. Cambridge, Massachusetts: MIT Press, 1973.

Fransecky, R. B., & Debes, J. L. Visual Literacy: A Way to Learn - A Way to Teach. Washington: Association for Educational Communications and Technology, 1972.

Gullett, M. Educational Technology. Scarborough, Ontario: Prentice-Hall of Canada, Ltd., 1973.

Gordon, D. R. Language, Logic, and the Mass Media. Toronto: Holt, Rinehart, & Winston, 1966.

Gordon, D. R. The New Literacy. Toronto: Toronto University Press, 1971.

Kravetz, S. Can Classroom Teachers Overcome their Technology Trauma? Audiovisual Instruction, 1976, 21, 12.

Kuhns, W., & Stanley, R. Exploring the Film. Dayton, Ohio: Pflaum/Standard Press, 1968.

Marchant, G. C. The Efficiency of Film in Education. Educational Media International, 1974, 1, 12.

APPENDIX B

Instruments

Workshop Evaluation Form

1. List three things you liked most about the workshop.

2. List three things you liked least about the workshop.

3. List things which you would have liked to be included in the workshop, but were not.

4. List things which were included in the workshop, but need not have been.

5. Which facet of the workshop was most beneficial to you.

6. "VTR" refers to ____
 - (a) a single lens reflex camera for making slides
 - (b) videotape recording - or television recording
 - (c) a television channel not used by commercial television producers, but meant for educational television broadcasts
7. To make a videotape, equipment needed includes ____
 - (a) a television camera, a videotape deck, and a power source
 - (b) a tape recorder and a television camera
 - (c) a television set
8. To produce a slide-tape show, equipment needed includes ____
 - (a) a slide projector and a camera
 - (b) a carousel projector and film
 - (c) a camera, a slide projector, and a tape recorder
9. The steps in the operation of a carousel slide projector are ____
 - (a) place the slides in the carousel tray, use the remote control switch to advance the slides, turn the off-on button to fan
 - (b) plug the machine into an outlet, switch the off-on button to on, focus the projector, turn out the lights
 - (c) plug the machine into a power source, position the carousel tray at zero on the projector, place the off-on switch in the "high" lamp position, focus, use the select button to advance slides
10. The basic components of the communication process are ____
 - (a) the sender, the receiver, the message, the medium
 - (b) the speaker, the listener, the code
 - (c) the sender, the receiver, the message, the volume

Pre-Achievement Test

Underline the response which best completes the sentence.

1. A storyboard is ____
 - (a) a large board on which to write a story or script
 - (b) a sequential plan depicting the visuals and the accompanying script of a production
 - (c) a story which is told only through pictures
2. "Copywork" is ____
 - (a) a method of making visuals of existing visual works using photographic techniques
 - (b) a photographic technique which produces multiple copies of one visual
 - (c) the making of multiple copies using a xerox machine
3. One method of doing "copywork" is to ____
 - (a) use a visualmaker kit
 - (b) use a xerox machine
 - (c) use a slide projector
4. "Graphics" refers to ____
 - (a) the sequencing of visuals for a production
 - (b) special technical and/or mechanical lettering devices
 - (c) the credits, titles, and other printed materials of a production
5. A "visualmaker" is ____
 - (a) a kit which has a camera and projector combined for making and showing slides
 - (b) a photo mechanical transfer machine
 - (c) a kit which has an instant camera and a frame with an extra lens for close-up photography

Post-Achievement Test

1. What is a storyboard? _____

2. What is copywork? _____

3. Describe one method of doing copywork. _____

4. What does "graphics" mean? _____

5. What is a visualmaker? _____

6. What is VTR? _____

7. To make a videotape, equipment needed includes. _____

8. To produce a slide tape show, equipment needed includes _____

9. Describe the operating procedure of a carousel slide projector

10. Name the basic components in the communication process.

13.	Media production is a sound instructional method.	SA	A	U	D	SD
14.	Media production fosters cooperation.	SA	A	U	D	SD
15.	Media production provides the opportunity to work in groups.	SA	A	U	D	SD
16.	Media production creates additional awareness of the impact of mass media on the consumer.	SA	A	U	D	SD
17.	Media production has great value.	SA	A	U	D	SD
18.	Media production adds variety to instruction.	SA	A	U	D	SD
19.	Working with media develops good planning ability.	SA	A	U	D	SD
20.	Working with media is practical.	SA	A	U	D	SD
21.	Working with media is a necessity in today's world.	SA	A	U	D	SD
22.	I am willing to spend more time working with media.	SA	A	U	D	SD
23.	Media is not receiving its due in high schools.	SA	A	U	D	SD
24.	Working with media helps me socially, as well as intellectually.	SA	A	U	D	SD
25.	I estimate that the majority of students enjoy working with media.	SA	A	U	D	SD
26.	Media production fosters creativity.	SA	A	U	D	SD
27.	Media production provides time for self-expression.	SA	A	U	D	SD
28.	Working with media inspires greater understanding of literary forms.	SA	A	U	D	SD
29.	Working with media will prove useful in further studies.	SA	A	U	D	SD

Attitude Survey

Code: SA Strongly agree ,
 A Agree
 U Undecided
 D Disagree
 SD Strongly Disagree

Please circle the initials which most closely approximate your feelings about the following statements.

- | | | | | | | |
|-----|--|----|---|---|---|----|
| 1. | Working with media is enjoyable. | SA | A | U | D | SD |
| 2. | Working with media is beneficial to me. | SA | A | U | D | SD |
| 3. | Students learn through working with media. | SA | A | U | D | SD |
| 4. | Media production is exciting. | SA | A | U | D | SD |
| 5. | Media production will aid in English studies. | SA | A | U | D | SD |
| 6. | Media production increases awareness of the communication process. | SA | A | U | D | SD |
| 7. | Storyboarding provides practice in techniques of communicating. | SA | A | U | D | SD |
| 8. | Planning a media production provides additional opportunities to order written thoughts. | SA | A | U | D | SD |
| 9. | Media production is not difficult. | SA | A | U | D | SD |
| 10. | Schools should provide more opportunities to work with media. | SA | A | U | D | SD |
| 11. | Schools should provide more audiovisual materials and equipment. | SA | A | U | D | SD |
| 12. | Media production should be part of all high school English courses. | SA | A | U | D | SD |

Composite Attitudes

Composite Attitude 1: Aesthetic qualities of Media study.

1. Working with media is enjoyable.
2. Working with media is beneficial to me.
4. Media production is exciting.
17. Media production has great value.
25. I estimate that the majority of students enjoy working with media.
26. Working with media fosters creativity.

Composite Attitude 2: Instructional value of Media study.

3. Students learn through working with media.
9. Media production is not difficult.
13. Media production is a sound instructional method.
18. Media production adds variety to instruction.
19. Working with media develops good planning ability.
20. Working with media is practical.

Composite Attitude 3: Media utility in English studies.

5. Media production will aid in English studies.
6. Media production increases awareness of the communication process.
7. Storyboarding provides practice in techniques of communicating.
8. Planning a media production provides additional opportunities to order written thoughts.
12. Media production should be part of all high school English courses.
27. Media production provides time for self-expression.

30. Working with visual media
provides another avenue of
expression.

SA A U D SD

Audiovisual Utilization Questionnaire

Part I: Personal Data

Age _____ Teaching Certificate _____
 School _____
 Teaching Experience, High School English _____
 Total Years Teaching Experience _____
 Media Courses Completed at University _____

Part II: Equipment Check

1. Please check (✓) each item of equipment in your school.

<input type="checkbox"/> Reel to Reel Tape Recorder	<input type="checkbox"/> Slide Projector
<input type="checkbox"/> Cassette Tape Recorder	<input type="checkbox"/> Filmstrip Projector
<input type="checkbox"/> Record Player	<input type="checkbox"/> 16mm Projector
<input type="checkbox"/> Instamatic Camera	<input type="checkbox"/> 8mm Projector }
<input type="checkbox"/> Polaroid Camera	<input type="checkbox"/> VTR Equipment
<input type="checkbox"/> 35mm Camera	<input type="checkbox"/> Television Set
<input type="checkbox"/> Super 8 Camera	<input type="checkbox"/> Visualmaker Kit
<input type="checkbox"/> Overhead Projector	<input type="checkbox"/> Viewing Screen

2. Please check (✓) items you can operate with ease.

<input type="checkbox"/> Reel to Reel Tape Recorder	<input checked="" type="checkbox"/> Slide Projector
<input type="checkbox"/> Cassette Tape Recorder	<input checked="" type="checkbox"/> 16mm Projector
<input type="checkbox"/> Record Player	<input type="checkbox"/> 8mm Projector
<input type="checkbox"/> Instamatic Camera	<input type="checkbox"/> VTR Equipment
<input type="checkbox"/> Polaroid Camera	<input type="checkbox"/> Filmstrip Projector
<input type="checkbox"/> 35mm Camera	<input type="checkbox"/> Television Set
<input type="checkbox"/> Super 8 Camera	<input type="checkbox"/> Visualmaker Kit
<input type="checkbox"/> Overhead Projector	<input type="checkbox"/> Viewing Screen

28. Working with media inspires greater understanding of literary forms.

30. Working with visual media provides another avenue of expression.

Composite Attitude 4: Socializing value of Media study

14. Media production fosters cooperation

15. Media production provides the opportunity to work in groups.

24. Media production helps me socially, as well as intellectually.

Composite Attitude 5: General educational implications of Media study.

16. Media production creates additional awareness of the impact of mass media on the consumer.

21. Working with media is necessary in today's world.

22. I am willing to spend more time working with media.

29. Working with media will prove useful in further studies.

Composite Attitude 6: Significance of Media study for school boards.

10. Schools should provide more opportunities to work with media.

11. Schools should provide more audiovisual materials and equipment.

23. Media is not receiving its due in high school.

10. Have you used equipment for other than commercial instructional materials? _____
11. Have your students used media creatively? _____
12. Do you believe that the English programs you teach could be improved through use of media? _____
13. If you had a choice to teach a segment of the English program using either print or non-print materials; which would you choose? _____
14. Do you use media with This Book is About Communications in Grade Eleven? _____
15. Have you chosen to teach the media option in Grade Nine? _____
16. Have you chosen to teach the media option in Grade Ten? _____

3. Please check (✓) the items that you used in teaching during the past year.

<input type="checkbox"/> Reel to Reel Tape Recorder	<input type="checkbox"/> Slide Projector
<input type="checkbox"/> Cassette Tape Recorder	<input type="checkbox"/> Filmstrip Projector
<input type="checkbox"/> Instamatic Camera	<input type="checkbox"/> 16mm Projector
<input type="checkbox"/> Polaroid Camera	<input type="checkbox"/> 8mm Projector
<input type="checkbox"/> 35mm Camera	<input type="checkbox"/> Viewing Screen
<input type="checkbox"/> Super 8 Camera	<input type="checkbox"/> VTR Equipment
<input type="checkbox"/> Overhead Projector	<input type="checkbox"/> Television Set
<input type="checkbox"/> Record Player	<input type="checkbox"/> Visualmaker Kit

Part III: Media Use

1. Is your school rural or urban? _____
2. Has geographic location influenced your use of media? _____
3. Have financial factors influenced your use of media? _____
4. Has scheduling influenced your use of media? _____
5. Has class size influenced your use of media? _____
6. What is the average class enrollment in your school? _____
7. Has unfamiliarity with equipment influenced your decision to use media? _____
8. Does your school have a designated room for equipment storage and use? _____
9. Have you used equipment to show commercial instructional materials? _____

42 Linden Court Apts.,
St. John's, Nfld.
July 11, 1977.

Superintendent,
Roman Catholic School Board,
Gander-Bonavista,
P.O. Box 386,
Gander, Nfld.

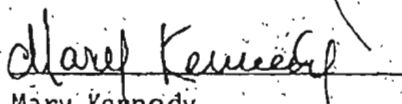
Dear Mr. Smith:

I am interested in conducting workshops in Media throughout your district in September, 1977. These workshops constitute part of my Master's thesis.

The workshops will involve grade eleven students and teachers of English. They are designed to provide both in-service education for teachers and an introduction to Media for students. I hope to conduct one workshop in St. Brendan's, one in King's Cove, and one in Gander.

It is my intention to work closely with Mr. Galway, the Language Arts/English Consultant, and I have taken the liberty of sending him a copy of this letter. Plans to date are tentative pending your approval. I look forward to hearing from you at your earliest convenience.

Yours truly,


Mary Kennedy

APPENDIX C
Correspondence

42 Linden Court Apts.,
St. John's, Nfld.
August 8, 1977.

Superintendent,
Roman Catholic School Board,
Gander-Bonavista,
P.O. Box 386,
Gander, Nfld.

Dear Mr. Smith:

Re my letter of July 11, 1977 concerning a series of workshops in Media which I hope to conduct throughout your school district in September, my plans are now more concrete.

I would like to conduct three workshops, each of two and one-half days duration. These workshops, in St. Brendan's, King's Cove and Gander would be for grade eleven students and teachers of English.

Tentative dates of the workshops are:

King's Cove ----- Evening, Sept. 19 to Sept. 21
St. Brendan's ----- Evening, Sept. 22 to Sept. 24
Gander ----- Evening, Sept. 26 to Sept. 28

While the workshops might call for some rearrangement of schedules, they should not be too inconvenient for the administrators involved.

The workshops will be conducted under the auspices of the Division of Learning Resources, Memorial University of Newfoundland. They will provide all materials for the three workshops, and any equipment which the schools do not have. Hopefully two resource people will assist in conducting the workshops, each providing expertise in some aspect of Media.

The school board need provide building facilities only through the cooperation of the administrators involved. I presume that Mr. Galway can make the necessary arrangements with these administrators, pending your approval of my plans.

I trust that you are interested in the provision of in-service through my workshops, and look forward to hearing from you so that these plans can be finalized.

Yours truly,

Mary Kennedy

Mary Kennedy

St. Mark's Central High School

King's Cove, Bonavista Bay
Newfoundland, Canada.

September 22, 1977


Miss Mary Kennedy
42 Linden Court
St. John's.

Dear Mary:

Please accept our sincerest thanks for visiting St. Mark's School and conducting a workshop with the Grade XI Class. You are to be commended on your excellent organization and your method of presentation. The Language Arts teacher, Mr. Butt, felt that the workshop was well worthwhile and is sure that the students have benefited greatly from their participation.

Again thank you very much for choosing our school and the best of luck in your studies.

Yours sincerely,


John P. Keough,
Principal.

JPK:mb

c.c. Mr. Frank Smith
Superintendent
Gander - Bonavista
R.C. School Board

St. Gabriel's High School,
St. Brendan's,
September 28, 1977.

Ms. Mary Kennedy,
42 Linden Court Apts.,
St. John's, Nfld.

Dear Mary:

I wish to extend our thanks for your visit to our school. The workshop was enjoyed by both the teachers and the students, and all seemed to feel that it was a worthwhile learning experience.

Once again, thank you, and we wish you every success in your studies.

Yours truly,

Gregory O'Rielly

Gregory O'Rielly
(Principal)

APPENDIX D
Additional Data

42 Linden Court Apts.,
St. John's, Nfld.
October 3, 1977.

Mr. Joseph Downey,
Principal,
Holy Spirit School,
Manuels, C.B.

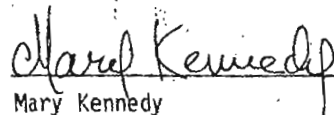
Dear Mr. Downey:

Through conversation with David Lawlor, the English Department Head at Holy Spirit School, I understand that you would be interested in my conducting a Media workshop.

I would be delighted to do so with one grade eleven class and your teachers of English, and I am available during the month of October.

I have given Mr. Lawlor copies of the agenda for your perusal, and I look forward to hearing from you regarding this matter.

Yours truly,


Mary Kennedy

Participant	Sex	Teacher/Student	Urban/Rural School	Pre-Achievement Test (0-10)	Post-Achievement Test (0-10)	Pre-Attitude Scale (30-150)	Post-Attitude Scale (30-150)
25	M	T	R	0	6	105	132
26	M	T	R	3	9	95	136
27	M	S	R	0	4	110	112
28	M	S	R	0	2	100	107
29	F	S	R	0	7	122	140
30	F	S	R	2	10	108	129
31	M	S	R	1	8	109	146
32	M	S	R	0	8	103	127
33	F	S	R	2	3	107	123
34	F	S	R	2	6	89	110
35	M	S	R	0	5	107	124
36	M	S	R	0	10	99	121
37	M	S	R	2	8	108	137
38	F	S	R	2	7	83	101
39	M	S	R	1	9	98	136
40	F	S	R	2	6	114	144
41	M	S	R	4	10	114	128
42	M	T	U	5	9	93	132
43	M	T	U	2	8	105	140
44	M	T	U	2	9	113	121
45	M	T	U	3	8	108	146
46	F	S	U	0	7	101	137
47	F	S	U	0	7	107	134
48	F	S	U	0	6	95	120
49	F	S	U	0	8	105	117
50	F	S	U	0	7	101	139
51	F	S	U	0	10	99	124

Raw Data

Participant	Sex	Teacher/Student	Urban/Rural School	Pre-Achievement Test (0-10)	Post-Achievement Test (0-10)	Pre-Attitude Scale (30-150)	Post Attitude Scale (30-150)
1	M	T	R	1	8	121	143
2	M	T	R	1	7	108	150
3	F	S	R	0	6	113	138
4	F	S	R	0	6	120	132
5	F	S	R	0	6	120	129
6	F	S	R	0	7	106	125
7	F	S	R	0	7	103	140
8	M	S	R	0	5	110	118
9	M	S	R	0	6	113	124
10	M	S	R	7	6	117	138
11	M	S	R	0	6	99	132
12	F	S	R	0	7	115	137
13	F	S	R	0	7	108	120
14	M	S	R	0	7	110	118
15	M	S	R	0	7	112	112
16	F	S	R	0	7	107	141
17	F	S	R	0	5	113	136
18	F	S	R	0	4	115	134
19	M	S	R	0	0	125	134
20	M	S	R	0	0	121	134
21	M	S	R	1	7	119	147
22	F	S	R	0	7	109	128
23	M	T	R	1	8	118	144
24	M	T	R	1	6	115	148

An Itemized Analysis of Response Frequencies on
Pre-Attitude, Post-Attitude Scales.

Pre-Attitude	SA	A	U	D	SD
1	9	24	37	-	1
2	10	35	25	-	1
3	11	45	14	-	1
4	6	25	39	-	1
5	5	38	26	2	-
6	19	33	18	1	-
7	3	12	56	-	-
8	3	25	43	-	-
9	-	7	56	7	1
10	21	41	6	2 ⁹	1
11	27	37	5	-	2
12	16	33	19	2	1
13	1	11	54	4	1
14	9	29	31	2	-
15	10	49	11	-	1
16	6	27	38	-	-
17	6	37	27	-	1
18	4	29	37	1	-
19	8	30	32	1	-
20	-	25	41	5	-
21	8	31	25	5	2
22	9	34	27	-	1
23	7	26	34	4	-
24	4	26	38	2	1
25	2	39	29	-	1
26	9	31	30	1	-
27	6	35	26	4	-
28	2	26	43	-	-

Participant	Sex	Teacher/Student	Urban/Rural School	Pre-Achievement Test (0-10)	Post-Achievement Test (0-10)	Pre-Attitude Scale (30-150)	Post-Attitude Scale (30-150)
52	F	S	U	0	9	71	142
53	F	S	U	3	9	105	130
54	F	S	U	0	7	94	147
55	F	S	U	0	9	109	129
56	F	S	U	0	7	121	145
57	M	S	U	0	6	100	128
58	F	S	U	0	10	93	123
59	F	S	U	0	9	106	125
60	M	S	U	2	6	129	144
61	M	T	U	4	10	114	137
62	M	T	U	6	10	110	136
63	M	T	U	3	9	118	137
64	F	T	U	5	10	115	137
65	M	T	U	8	10	108	134
66	M	T	U	3	8	118	137
67	F	T	U	4	7	104	136
68	M	T	U	5	9	107	137
69	M	S	U	7	10	106	129
70	F	S	U	6	10	109	138
71	M	S	U	7	9	109	140

END

31.01.80

FIN

Pre-Attitude	SA	A	U	D	SD
29	5	35	28	2	1
30	5	30	31	3	2
Post-Attitude					
1	58	12	-	-	1
2	37	33	-	1	-
3	43	28	-	-	-
4	47	24	-	-	-
5	23	41	7	-	-
6	46	22	3	-	-
7	28	34	9	-	-
8	27	37	7	-	-
9	18	44	4	3	2
10	52	19	-	-	-
11	55	16	-	-	-
12	37	30	4	-	-
13	20	38	8	5	-
14	31	36	4	-	-
15	41	28	2	-	-
16	29	37	5	-	-
17	37	31	2	1	-
18	26	40	5	-	-
19	40	29	1	1	-
20	19	45	5	2	-
21	29	34	6	2	-
22	40	27	3	-	-
23	36	30	4	1	-
24	34	31	6	-	-
25	35	34	2	-	-
26	31	38	2	-	-
27	33	34	4	-	-
28	28	36	7	-	-
29	31	34	6	-	-
30	40	26	4	-	1

