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University of Alberta

**The Role of the Distance Education Teacher in Alberta's Rural
Schools**

by

Shirley G. Douglas



A thesis submitted to the Faculty of Graduate Studies and Research in partial
fulfillment of the requirements for the degree of Master of Education

in

Instructional Technology

Department of Educational Psychology

Edmonton, Alberta

Fall, 1995



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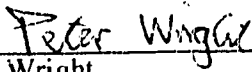
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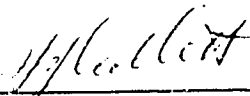
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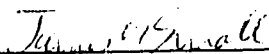
University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **THE ROLE OF THE DISTANCE EDUCATION TEACHER IN ALBERTA'S RURAL SCHOOLS** submitted by **Shirley G. Douglas** in partial fulfillment of the requirements for the degree of **Master of Education in Instructional Technology**.


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Date: Aug 24, 1995

Abstract

The major purpose of this research was to investigate and describe the role of the distance education teacher in Alberta's rural schools and to identify critical issues that may be associated with this role.

Data were collected by means of a questionnaire completed by distance education teachers. The questionnaire contained inquiries as to the characteristics and qualifications of distance education teachers, what courses they offered and the method of course delivery, what instructional and communication technologies were available to the teachers, the nature of the teacher interactions with students, and what the teachers liked and disliked about their jobs.

The profile of the Alberta distance education teacher that developed included the following features:

- involved in distance education only part of the working day
- uses the title "distance education coordinator"
- the majority of time is spent on marking assignments
- has received little or no formal training in the area of distance education
- feels that understanding student problems and knowledge of the subject are important skills for a distance education teacher
- would find further education in course/curriculum development useful
- primarily teaches mathematics and social studies
- uses print materials provided by the Alberta Distance Learning Centre, which are distributed to the students in sections
- uses the fax machine as the primary communication technology, followed by the telephone
- feels that distance education allows the students to increase their independent study skills

- has daily contact with students, and the teacher is very satisfied with the quality of this contact
- provides a grade with written comments on the student work, and returns the assignments to the students the next day
- is between 40 and 50 years of age, is a male, and has a permanent contract with the school jurisdiction
- receives a computer and fewer regular classes to teach as compensation and enjoys the flexibility, freedom and variety that comes with distance education teaching

Acknowledgments

The development and completion of this study was assisted by the contribution of many individuals, and it is to them that I would like to express my sincere appreciation and gratitude.

To Dr. Peter Wright, my advisor, for his valued guidance and support in all stages of this thesis.

To Dr. Dave Collett for his much appreciated feedback, suggestions, and guidance and for prompting this topic.

To Dr. J. Small, for his assistance in this endeavour.

To Dr. L. Stewin, for agreeing to sit on the committee and providing insight and input.

To my husband, Mark, for his ongoing support and assistance and to my children, Keltie and Russell, for their patience and support from start to finish.

And finally, my thanks are extended to the distance education teachers in Alberta whose time and effort in completion of the research questionnaire is reflected in this study.

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Chapter One

STATEMENT OF THE PROBLEM AND ITS SIGNIFICANCE

Introduction

Distance education enrollment in Alberta's rural schools has dramatically increased since 1985 as a result of the Secondary Educational Policy announced that year by Alberta Education. In part, that policy stated that "the secondary education system must use technology to enhance learning and to facilitate access to equitable educational opportunities for all students, regardless of ability, circumstance or location" (1985, p. 8). Through a progression of pilot projects at selected sites in the province, and Alberta Education's Program Equity Grants introduced in 1989, the impact of distance education is being felt in rural secondary schools throughout Alberta. New structures have developed and technological changes have enhanced a school's ability to deliver courses through distance education. Equity of educational opportunities for high school students in small rural schools is being addressed through the implementation of distance education.

As a result of these changes, a new role for educators has emerged. This instructional role falls into the generic category of "distance education teacher." What is a distance education teacher in Alberta today? Can we define this professional?

Objectives

The purpose of the research was to investigate and describe the role of the distance education teacher in Alberta's rural schools and to identify critical issues that may be associated with this role. The following questions guided the research:

1. What are the characteristics and qualifications of distance education teachers, and how did they become distance education teachers? Have they received specialized training for these instructional tasks?
2. How do these educators perceive their responsibilities and skills? Do they feel competent with their training and abilities?
3. What courses are the teachers offering through distance education, who is responsible for preparation of curricular materials that are being used and what methods of course delivery are these teachers utilizing to fulfill their teaching duties?
4. What instructional and communication technologies are available to distance education teachers and which of these technologies are the teachers using most frequently?
5. What is the nature of teacher interactions with students, and how do the teachers perceive these interactions?
6. What do the distance education teachers like and dislike about their jobs?

The present research utilized a questionnaire supplemented by interviews, observations and documents. Previous research in the general area of distance education (Hough, 1992) concentrated on the area from Edmonton south to the provincial border. In this study, efforts were made to include a sampling from the entire province.

Significance

There is increased interest in distance education throughout the world, but the focus is primarily at the post-secondary level. Garrison and Shale (1990) note,

The current enormous interest in distance education is due in large measure to the appeal that it has to a very broadly based constituency. It seems to have something to offer to almost everyone. (p.ix)

In Alberta, rural schools are looking to comply with Alberta Education's philosophy of access and equity for all students, while still operating a fiscally-balanced system. Providing increased opportunities in course selection in rural schools has become a significant issue. In addition, the underlying technological push that makes distance education more attractive as school jurisdictions attempt to balance budgets is also an issue. According to the Distance Learning Handbook published by Alberta Education in 1991, the numbers of students accessing their education through distance education has been steadily increasing since 1989, with a corresponding increase in involvement by Alberta teachers in distance education. The impact of the changing role from a traditional classroom teacher to a professional now involved in the delivery of courses through distance education is the underlying significance of this research. How have these changes affected what some teachers are now doing in rural Alberta?

There has been limited research conducted to analyze the impact of the changing role of the distance education teacher. In his thesis, The Impact of Distance Education on the Organization of Schools and School Systems in Alberta (1992), Hough interviewed selected teachers in three distance education consortia in Alberta as part of his research. Hough looked at general employment conditions. He notes,

The researcher's opinion, supported by many examples throughout this study, is that the employment practices associated with distance education are unacceptable, because they are inferior to the regulated conditions provided for classroom teachers. Often a distance education program continued only because of the extra work and efforts expected of a consortium coordinator, principal, teacher, or clerical assistant. It was not unusual to find people doing two jobs, such as tutor-marking and supervising students at the same time; principals and deputy principals taking on an extra role as the distance education coordinator; and consortium coordinators expected to have many roles but at the same time expected to direct the implementation of a major organization. Even when funds were available to overcome these problems there was often a reluctance to employ extra staff or provide extra time for a position because of the parsimonious attitude that usually existed at the jurisdictional level, or because the distance education funds were being spent on technology which was not directly related to the distance education program.

(p. 306)

It seems clear from Hough's research that the role of the distance education teacher in Alberta requires further examination. Faced with new delivery technologies, altered teaching environments, and changing student demographics, distance education teachers must "accommodate a number of variables which are not normally encountered" (Carter, 1982). The primary focus of Herchek's case study (1991) was the high school students' perspectives of distance education. The study did reveal that the supervising teacher's familiarity with the course offered by distance education was an issue for students.

This research focused on the distance education teacher in Alberta in contrast with Hough's account of the entire distance education system. The significance of this study was based on the need to explore and extend our

knowledge of the current status of distance education teachers, how these teachers perceive their roles and their interaction with the students. There is little known about the distance education teachers: the numbers of teachers involved in the delivery of distance education, how they perceived their positions, their reasons for becoming involved in distance education delivery, and their concerns about the future of distance education. Numerous studies have been conducted with respect to distance education tutors (Melton, 1986; MacKenzie, 1976b; Korfker, 1977; Haag, 1990; Rouse, 1986). However, there is limited research with respect to the role of the distance education teacher, and even less when this is restricted to teachers at the secondary school level. It is hoped that this research will assist educators in Alberta in the provision of a more meaningful learning experience for distance education students and a more enriching career for the teachers involved in distance education.

Delimitations

Collection of data occurred during the spring of 1994. It was expected that this time period would allow for distance education teachers to have taught the first semester and have current data to answer the questions posed. The teachers were busy teaching the second semester, and were able to provide this information as well. Data were collected from questionnaires, interviews, observations and documents. Generalizations can be made about this study only to the extent that other jurisdictions and their distance education contexts are similar.

Since distance education is funded primarily to rural secondary schools with low student enrollments, the research focused on Alberta's rural schools where distance education has been implemented. There are urban centers offering courses through the distance education models, and these schools have not been included in this research.

Limitations

This study is limited by using distance education teachers as the primary source of information and data. Interviewing central office administrators, school administrators and students would provide a more comprehensive body of data. The time constraints did not allow for this. The researcher was limited by the ability to contact distance education teachers, and the peculiarity of finding and defining the distance education teachers. In addition, the school jurisdictions in Alberta, primarily the rural jurisdictions, were in the process of restructuring at the time the data was being collected. Regionalization of school jurisdictions and changing programs, policies and roles would make it difficult to conduct research in this area until new systems were established.

There is the potential for bias on the part of the researcher, who was a classroom teacher, so an attempt was made to include all responses, both positive and negative. However, since the questionnaires were distributed to school jurisdictions where distance education is prominent, it may be concluded that all parties involved in the study have a bias in favor of distance education.

Assumptions

It was assumed that permission would be granted by superintendents to administer the questionnaire and that supporting data would be made available when requested. At the time of this writing, a major restructuring of Alberta's school systems was underway, and it was assumed that the position of distance education teacher would be in existence when data were to be collected.

Definition of Terms

Distance Education

When defining distance education, Moore (1973) and Holmberg (1974) focus on the separation of the teacher from the learner, so that the communication between the two must be facilitated by some communication device (i.e., print, electronic, mechanical). Clark and Schieman (1990), in their report prepared on behalf of Alberta Education, defined distance education as "the use of any appropriate means to eliminate distance between student and teacher in order to provide courses not otherwise available from a teacher locally by traditional delivery methods due to:

- a) insufficient student numbers in these courses or,
- b) absence of an on-site specialist to deliver these courses."

Borje Holmberg (1981) defined distance education as "those teaching methods in which, because of the physical separateness of learners and teachers, the interactive as well as the preparatory phase of teaching is conducted through print, mechanical or electronic devices."

Desmond Keegan (1988) defines the main elements of a definition of distance education as:

- the separation of teacher and learner which distinguishes it from face to face lecturing;
- the influence of an educational organization which distinguishes it from private study;
- the use of technical media, usually print, to unite teacher and learner and carry the educational content;
- the provision of two-way communication so that the student may benefit from or even initiate dialogue;
- the possibility of occasional meetings for both didactic and socialization purposes;
- the participation in an industrialized form of education which, if

accepted, contains the genus of radical separation of distance education from other forms.

The term "distance education" appears to defy a succinct definition, perhaps as a result of the changes taking place in distance education. This research has been conducted in Alberta, and will use Alberta Education's definition of distance education which focuses on student numbers and/or the absence of an on-site specialist. This definition determines which schools qualify for the distance education funding grants, and consequently determines which schools are involved in distance education in Alberta.

Distance Education Teacher

A "distance education teacher" is defined in this study as a certificated teacher (a member of the Alberta Teachers' Association), under contract to the school jurisdiction, who delivers courses by distance education as part of that teacher's regular teaching assignment. There may or may not be physical separation of the learner from the teacher.

This definition is required as most organizations that offer distance education at the post-secondary level have contracted the services of tutors to assist in the delivery of the course materials. The role of a tutor is described by Anderson (1989) as an individual who provides information, assistance, and encouragement to assigned students. There is no indication that teaching is taking place in the tutor model. There are a number of teachers in Alberta who consider themselves to be distance education teachers as they are utilizing computer-managed learning and materials from the Alberta Distance Learning Centre to deliver courses to students in their school in a multi-course model. I have not excluded these teachers, as the

curriculum materials are being used as a supplement to or replacement for the regular classroom materials.

Organization of the Thesis

The thesis is organized into five chapters. The first two chapters discuss the statement of the problem and the review of the literature. The third chapter discusses the methodology and instrumentation, the research design, sample selection, and process of data analysis. Chapter four presents the results and analysis of the results. In chapter five, the research is summarized, future implications are discussed, and the researcher comes to conclusions.

Chapter II

REVIEW OF THE LITERATURE

Introduction

In chapter one, the question of, "What is a distance education teacher in Alberta today? " was asked. Definitions of distance education and the distance education teacher were provided. Chapter two will provide a review of related literature which focuses on the background of distance education in Alberta, using the following headings as guideposts: a background of distance education in Alberta schools, present considerations, and implications for distance education teachers.

A Background of Distance Education in Alberta Schools

In Alberta in the 1920s, the minister of education, disturbed by the plight of ten children living in an area too poor to form a school and with no access to formal education, decided these children should receive lessons by mail. That decision led to the creation of the Alberta Correspondence Branch in 1923, a school that has since grown to a staff of over 180 serving almost 30,000 students, according to McKinnon (1986). The name was changed to the Correspondence School Branch (CSB) in 1939, to the Alberta Correspondence School in 1983 and finally, the Alberta Distance Learning Centre (ADLC) in 1991.

Little changed with distance education from its inception to the mid-1980s. Courses continued to be print-based and the primary clientele was rural Alberta

school children. Often the course materials were received by the school on behalf of the student and the lessons were completed at school. In many cases, the students were attending a one-room school encompassing grades one through nine. The *Alberta Distance Learning Centre Handbook*, published in 1993 by Alberta Education, notes that enrollment in correspondence courses increased following the Second World War, as a result of the teacher shortage.

The introduction of distance education in the province of Alberta was founded on the issues of equity and access for all children in the province. The desire to strike a balance between the rural and urban centres formed the basis of distance learning, as it has become known.

The 1991 edition of *Distance Learning Handbook*, published by Alberta Education, notes that in 1988-89, there were 30,380 students registered with Alberta Distance Learning Centre. Of this number, approximately 10,000 students were enrolled in school systems, the balance receiving materials as independent learners and adult students.

What suddenly increased the desirability of distance education in Alberta's rural schools? The correspondence school has operated since 1923. The failure rate and drop-out rate for students taking correspondence courses were extremely high. The completion and passing rates of traditional correspondence courses ranged between 20-30%. The instructional materials provided by the correspondence school were print-based and course selection was limited.

In 1985 the Secondary Educational Policy was announced by Alberta Education, which, in part, stated that "the secondary education system must use technology to enhance learning and to facilitate access to equitable educational opportunities for all students, regardless of ability, circumstance or location" (Alberta Education, 1985).

Thus was born the pilots for small schools, outlined below:

Table 1: The Pilot Projects for Small Schools

Year		Students
1987	Distance Learning in Small Schools Project (southern Alberta schools) 13 high schools in 10 school systems 74 courses offered	586
1988	Distance Learning Project North (northern Alberta schools) 12 schools	1100
1989	Distance Education Program Equity grant introduced by Alberta Education	9700
1991	Students across Alberta in rural schools	10 000+

The Distance Learning Handbook (1991), provided by Alberta Education, states, "In the 1990-91 school year, the province-wide acceptance of distance learning was clearly seen. Over 9700 students were enrolled in high school subjects. Included were 809 schools offering mathematics by computer-managed learning" (p.2).

What schools qualify for distance education funding? In order to qualify for program equity grants, schools have to meet the following criteria:

- fewer than 150 funded senior secondary school students are enrolled as of September 30 of the current year;
- at least one course is offered through a distance education program;
- distance education grants are generally limited to rural school boards; however, urban school boards may be eligible if there is only one secondary school in the school jurisdiction and the above criteria have been met;
- urban Francophone secondary schools are considered eligible if there is only one Francophone secondary school in the school jurisdiction;
- a jurisdiction's adjusted equalized assessment is less than \$370,000 per resident student; and
- all courses with more than 15 enrolled students are ineligible for credits toward the distance education program grant, unless they are approved by the Distance Learning Implementation unit of the Alberta Distance Learning Centre.

Pon (1994)

Five major consortiums are currently offering distance education courses in Alberta. However, many school divisions operate their distance education programs independently.

Table 2 below indicates the distance education grant information as of December, 1993.

Table 2: Distance Education Grant Information as of December, 1993

	1990-91	1991-92	1992-93
Eligible Jurisdictions	67	65	66
Eligible Schools	127	122	126
Eligible Participating Schools	115	115	119
Eligible Students	8 178	8 200	8 706
Distance Learning Course Enrolments	9 803	11 312	12 284
Distance Learning Credits	43 902	49 711	55 094
Number of Learning Management System Sites	82	80	90
Total Money Paid	\$4 million	\$4 million	\$4.7 million

Pon (1994)

Distance education has truly touched the majority of Alberta's rural schools. The program has moved from pilot projects to a fundamental component of school systems in the last three years. What does the literature say concerning issues that are presently facing rural school boards and teachers involved in distance education?

Present Considerations

Norman MacKinnon (1986) identified eight major trends in Canada with respect to distance education. Four of these trends which are applicable to secondary schools are noted below, along with the status of the trends here in Alberta.

1. an increased use of technology

Garrison (1987) notes that the growth of distance education during the last century was made possible through the availability of new communication technology. He notes that correspondence education's beginning occurred shortly after the postage stamp was introduced in England. The telephone was used for instruction purposes in the 1930s, and television followed. As our society moves toward the increased use of technology in business and industry, the delivery of instruction by computer has greatly enhanced the position of distance education. The Alberta Distance Learning Center is utilizing the computer for course delivery (computer-based instruction), course administration (computer-managed learning) and course enhancement (computer-assisted instruction). In the 1992-93 school year, there were ninety Learning Management System (computer-managed learning) sites operating in Alberta schools through the Alberta Distance Learning Centre. Jones, Scanlon and O'Shea (1987) note the social, economic and philosophical reasons behind the spread of technology in education. The social reasons include making education more accessible. One economic reason is the need to help large numbers of students acquire new skills (especially in the area of information technology). The philosophical reasons emphasize the need to give learners greater autonomy, greater choice of learning topic and medium, and more freedom to organize the pattern of their learning. Jones, Scanlon and O'Shea (1987) state:

The new technologies are obviously critical because they provide ways of reducing delivery costs, because they are often the subject matter taught, and because the difference between new computer-based information technologies and the old technologies makes it possible for the autonomous learner to be provided with individual adaptable instruction supported by graphics, speech and modelling software.

Telecommunication technology has increased to the point where fax machines have moved from the luxury to the commonplace for industry communication. All secondary schools participating in distance education were

offered high-speed fax machines at the start-up of distance education. Technology has increased the profile of distance education and makes implementation of the courses more feasible.

Garrison (1989) states:

Without the existing technological infrastructure to facilitate communication and transmit information at a distance, there would not be the current interest and development in distance education. The communications technology that exists today awaits imaginative educators to design accessible and supportive distance education systems.

2. an emphasis on developing courses suited to adults applying for secondary-school courses.

The courses at the Alberta Distance Learning Centre are developed in modules that may be combined by the learner to fit particular vocational requirements. Alberta Education (1991) notes that there are currently over 30,000 clients of the Alberta Distance Learning Centre, and the secondary schools account for approximately 10,000 of the students. Hatton's (1993) article indicated that increasing numbers of students are accessing distance education as independent learners and through home schooling.

Post-secondary courses have also been introduced for high school students. The Southern Alberta Institute of Technology (SAIT) and Olds College, in association with the West Central Distance Education Consortium, currently offer courses in occupational health and safety, power engineering, soils and horticulture. Pon (1994) indicates that Distance Learning Options South has an agreement with Lethbridge Community College to offer secondary schools as many as nine post-secondary courses. These courses range in topic from psychology to aquatic facility management.

3. a growing demand by school boards and school districts for distance education materials to support, complement or supplement school programs.

Due to financial constraints and the reality of split subject and level classes at secondary rural schools, there is a growing demand for "modularized" instruction packages to assist the learner. Distance learning packaged materials appear to meet this need. Many of the materials have been recently upgraded to align with curricular changes in mathematics and social studies and teachers are accessing these resources as foundation modules for classroom instruction. The Alberta Distance Learning Centre is currently developing modules in Tourism, Agriculture, and Financial Management to meet the curricular changes introduced by Career and Technology Studies. Pon (1994) indicates that there has been a increased demand placed on the Alberta Distance Learning Centre from classroom teachers to use the resources to supplement their teaching. Although distance education in Alberta has been primarily focused in the rural schools, more large urban schools are realizing that distance education materials and learning systems offer a valuable alternative to the conventional classroom. Lord Beaverbrook High School in Calgary has created a school within a school for its 2400 students, who are able to use distance education materials to complete their studies.

4. a commitment to improve distance education through innovation, technology and experimentation.

Alberta Education's distance education pilot projects (Distance Learning in Small Schools, Distance Learning Project North) proved so successful that distance learning is now a common mode of delivery in many of Alberta's rural schools. The use of technology in developing computer-based instruction, particularly in the area of high school mathematics, has placed Alberta in the forefront of western Canada in technological developments toward distance education. Alberta Education's commitment to allow school divisions to design their own strategy for implementation of distance learning has also added to its success. Some school

jurisdictions chose to form a consortium, others opted to go it alone. This autonomy exercised by the school jurisdictions increased the project's chances of success.

The increased use of the telephone technology to connect schools with the world via electronic bulletin boards is gaining in popularity in Alberta. The federally sponsored SchoolNet project saw 30 Alberta schools on-line in 1993. The County of Leduc has connected its schools to the Internet and other electronic bulletin boards. The County of Lacombe is participating in a pilot project using VISual Interactive Technology (VISIT) software. VISIT is a computer-based technology that includes live, two-way video and audio contact between the teacher and the student, together with a shared computer screen overlay on which either party can draw or paste computer images.

Implications for the Distance Education Teacher

What does the literature in the field say about the distance education teacher? In his studies relative to the use of technology in distance education, Shobe (1986) noted that Canada has had a long and successful history of involvement of technology with distance education, and that Canada is considered to be a leader in technological research and developments in distance education. Mecklenburger (1990) made the following observation concerning technology.

Virtually every student-sized and classroom-sized application of information technology imaginable--from student-produced television to students using supercomputers, from teachers reducing their clerical burdens to teachers making fascinating electronic presentations--exists somewhere. . .and both the literature of education and the speeches on the convention circuits resound with the hope that more teachers, schools, school systems . . .will elect to follow suit.

Yet chalkboards, lectures, and textbooks continue to dominate instruction almost everywhere.

Mauger and Boucherat (1991) state:

... the change can be particularly unnerving because it appears to be the 'same business'--teaching and learning--but the methods and emphasis are very different. This means that the new open learning tutor, despite having entirely valid experience, may feel de-skilled and vulnerable.

Mauger and Boucherat continue and identify components they feel lead to the feeling of vulnerability experienced by distance education teachers. The components are the need to learn new skills (counselling skills, organizational skills, administrative skills) coupled with the aspect of isolation that may accompany the role of the distance education teacher. Isolation is of particular concern for the rural classroom teacher who, in already being isolated from professional development activities, may be further isolated by assuming the role of the distance education teacher. Now, not only is that teacher isolated from other teachers who may be involved in distance education, that teacher is also isolated from his or her students.

Phillips (1994) notes that teachers involved in distance education need skills that are not necessarily apparent to those familiar only with conventional school systems. She points out the importance of communication skills, and emphasizes that ways to communicate with students through means other than face-to-face interaction must be taught. She states:

Skills that have been acquired through classroom teaching may not be adequate preparation for communicating through these, and other similar channels. (p.155)

Athabasca University has published an institutional document entitled *The Role of the Tutor at Athabasca University* (1990), which outlines skills required of tutors. These include subject matter knowledge, the ability to motivate learners, and involvement in the administration of electronic records. Baath and Wangdahl (1977) note that the research literature on tutor roles is not very encouraging. Much emphasis is placed on the importance of the tutor, but the method by which these

tutors are to obtain their skills is not addressed. Davie (1989) indicates the importance of climate setting for the distance education teacher. Davie emphasizes how a classroom teacher would establish the climate for the class and the course, and how skills in developing an appropriate learning climate for the distance education teacher are vital for the success of the course.

Balen (1995) noted in her study that sources of dissatisfaction for rural teachers could be grouped under four headings: professional, instructional, community, and social and personal issues. With respect to instructional issues, rural teachers complained about the heavy workloads as a result of varied teaching assignments, which led to a sense of inadequacy and exhaustion. In Haughey and Murphy's 1983 study, they indicated limited pupil support services ranked high among rural teachers' complaints. These are the individuals who are now being asked to deliver distance education courses in rural Alberta, which may involve increased use of technology, and varied courses.

Summary

"Distance education should no longer be written off as second-best. It has a different pattern of advantages and disadvantages from campus-based education but it is not intrinsically inferior. Comparisons between these modes of education are too often set up in an unfair way by comparing distance education with a rosy myth of campus-based education as a system which never goes awry. Distance educators have been too much on the defensive, accepting the prevailing prejudices against this mode too readily.

Fred Jevons (1987)

The impact of technology coupled with the desire for the best education we can afford for our children will drive the force behind individualized, modularized, life-long learning that will have as its foundation in Alberta, the distance education program now moving strongly ahead in the rural schools. The issue of equity between rural and urban centres may again arise, with the urban schools looking fondly at the rural programs and applauding their access to education, equity,

flexibility, responsiveness, and accountability, following Alberta's School Act.

If learning occurs outside the environment of the school, and does not always occur within in, then we must question the assumption (a given in our culture) that specified place, time and environmental conditions are essential for learning. If learning can and does occur anywhere, any time, under apparently random conditions, then perhaps some of the effort we put into creating special environments may not be necessary.

C.A. Wedemeyer (1981)

McKinnon (1986) notes that Canada's first publicly funded distance education service started in 1919 in the province of British Columbia in response to a lighthouse-keeper's request for elementary-school courses. Perhaps we have come full circle in that the delivery of distance education in the province of Alberta's rural secondary schools may become the "lighthouse" for delivery of a large portion of educational instruction and provide the direction and leadership to link the technology, the individual learner, the fiscal realities of the cost of education, the changing role of the teacher and the changing needs of business and industry.

The role of the distance education teacher is vital in the above formula. Issues that have emerged from the research indicate isolation from peers and students, the need to grasp new communication technologies, the need to establish teaching strategies appropriate for the distance learner, and the changing role of the distance education teacher.

The next chapter will examine the methodology utilized to attempt to answer some of the above concerns.

Chapter III

RESEARCH METHODOLOGY

Introduction

In this chapter, the research methods utilized and the study group involved will be presented as follows: Research Design and Population, Ethical Considerations, Development and Validation of the Questionnaire, Pilot Test, Organization of the Questionnaire, Administration of the Questionnaire, and finally, Data Presentation and Analysis.

Research Design and Population

A survey was utilized to investigate and describe the role of the distance education teacher in Alberta's rural schools and to identify critical issues that may be associated with this role.

Teachers involved in the delivery of distance education courses in fifty of Alberta's rural school jurisdictions comprised the study population. The size of the population was determined by the number of teachers actually involved in distance education, together with their willingness to respond and complete the questionnaire.

There is no provincial affiliation for distance education teachers at the secondary school level which would have defined a population sample for the study.

The rural school jurisdictions in Alberta were first contacted through their superintendents and/or known distance education coordinators to ascertain whether they offered courses via distance education. Telephone contact with the school jurisdiction was then followed by written contact, confirming the participation of the school jurisdiction.

The institutions that participated in this study are listed in Appendix A.

Ethical Considerations

Ethical clearance for the study was received from the Department of Adult Career and Technology Education Ethics Review Committee. Permission to approach the study population was obtained first by telephone and then by a written confirmation from the local area superintendent or distance education coordinator.

An explanation of the nature and the design of the study was included with each questionnaire. This explanation included an assurance that all information would be kept strictly confidential and the identity of the respondent would not be known to the researcher. A commitment to confidentiality was also included on the first page of the questionnaire. Each questionnaire had a peel-off reference number that was removed when the completed questionnaire was returned. The peel-off number was placed on a recording sheet, and the returned questionnaire was renumbered and set aside, prior to reviewing the data. The peel-off numbers were then recorded on a master data base as being returned. In this way, the questionnaire results were anonymous. An offer to share the results with each institution was also conveyed. Examples of the form letter and questionnaire are shown in Appendix B and Appendix C.

Development and Validation of the Questionnaire

A questionnaire designed by the researcher was used to collect the data for this study. The content of the questionnaire was primarily developed from a combination of three resources.

The first resource was a study entitled Mediation in Distance Learning: An Investigation of the Role of Tutoring, prepared on behalf of the Ontario Institute for Studies in Education by E.J. Burge, J.L. Howard and D.J. Ironside (1991). This study involved the documentation of the nature and extent of interaction taking place between tutors and learners in undergraduate distance education programs. The questions asked in this study were:

1. Who are the tutors (instructors, markers, and other mediators) in terms of their age, sex, and education?
2. How do the tutors describe their roles and responsibilities?
3. What are the tutors actually doing?

The Burge et al study involved the development of two survey instruments, and these two instruments formed a foundation for the questionnaire involved in this research.

The second source used to develop the questionnaire was a study by Peter Hough entitled The Impact of Distance Education on the Organization of Schools and School Systems in Alberta (1992). Hough's research utilized the case study method including interviews, casual observations and extant documents. Concerns were raised in Hough's study and these concerns were included in the research questionnaire. An example of one of the concerns raised was:

"The researcher's opinion, supported by many examples throughout this study, is that the employment practices associated with distance education are unacceptable, because they are inferior to the regulated conditions provided for classroom teachers. . . It was not unusual to find people doing two jobs, such as tutor-marking and supervising students at the same time. . ."

(p. 306)

The third source utilized to develop the questionnaire was a study completed by Mark Murray entitled The Role of Technology in Distance Education (1990). This research involved a questionnaire. Questions concerning technology used by post-secondary institutions in Alberta from Murray's study were adopted and adapted for this research.

Finally, a review of the literature revealed additional areas of concern and these concerns were included in the content of the questionnaire, together with adaptations by the researcher.

Pilot Test

The questionnaire was pilot tested by four distance education teachers: one from northern Alberta in a distance education consortium, one from southern Alberta also in a consortium, and two from central Alberta, whose school jurisdictions are independent. The questionnaire was mailed to three of the teachers, who completed the questionnaire. Their comments and criticisms were requested and incorporated. The researcher took the fourth questionnaire to a distance education teacher in southern Alberta, and observed the teacher completing the questionnaire. This provided the researcher with information as to the length of time for completion, as well as questions that caused the participant concern.

The questionnaire was then restructured to reflect the teachers' comments and concerns, together with the observations of the researcher.

Organization of the Questionnaire

The questionnaire contained thirty five questions and was divided into five sections. The first section, **Role, Responsibilities and Skills**, contained seven questions. The fourth section, **Participant Data**, contained seven questions, five of which were demographic. These two sections were designed to collect data relative to the first two sub-questions of the thesis:

1. What are the characteristics and qualifications of the distance education teachers, and how did they become a distance education teacher? Have they received specialized training for these instructional tasks?
2. How do these educators perceive their responsibilities and skills? Do they feel competent with their training and abilities?

Section two was entitled **Course Information** and was divided into two subsections: curricular materials (five questions) and communication technology (two questions). These questionnaire sections were included to collect data relative to sub-questions 3 and 4:

3. What courses are the teachers being asked to offer through distance education, who is responsible for preparation of curricular materials that are being used and what methods of course delivery are these teachers utilizing to fulfill their teaching duties?
4. What instructional and communication technologies are available to distance education teachers and which of these technologies are the teachers using most frequently?

Section three of the questionnaire was entitled **Interaction with Students** and contained nine questions relative to the teacher's perception of their interaction with the students. Three questions included a reference to the use of technology relative to student contact. These questions were designed to collect data related to sub-question 5:

5. What are the nature of teacher interactions with students, and how do the teachers perceive these interactions?

The fifth and final section of the questionnaire, entitled **General**

Comments, contained five questions, three of which were open-ended where the participant provided additional comments, to answer sub-question 6:

6. What do the distance education teachers like and dislike about their jobs?

Administration of the Questionnaire

A mail-out questionnaire was determined to be the best method to obtain data for this study. Mailing addresses for school districts were provided by Alberta Education. From the listing provided, rural school jurisdictions, counties and districts were identified (school jurisdictions are considered to be rural if they are not situated in a city - e.g. Red Deer City was not included).

Superintendents of 60 school jurisdictions were contacted by telephone to acquaint them with the nature of the proposed research and elicit their support. If distance education was offered in the school jurisdiction, the superintendent provided the researcher with:

- a) permission to contact the distance education teachers(s) in the school jurisdiction,
- b) the names of the teacher(s) with instructions to contact the teachers directly, or,
- c) the name of the distance education coordinator, together with permission to contact the coordinator for the name(s) of the distance education teacher(s).

The questionnaires were then numbered and mailed to the individual teachers identified by their superintendent or distance education coordinator, along with a personalized letter to the teacher outlining the purpose of the study. A copy of the letter to the teacher was forwarded to the superintendent confirming the school jurisdiction's consent to participate in the study.

In five instances, the superintendent asked that I contact the distance education coordinator who would then forward the questionnaire to the teachers involved. This was accomplished and self-addressed envelopes were provided, so that those teachers could respond in confidence to me.

A postage paid return envelope was included in the mail-out package to facilitate and encourage return of the questionnaires.

Contact with the school jurisdictions began in February of 1994, with the questionnaires being mailed out in April, 1994. In total, 174 questionnaires were mailed, and 93 usable questionnaires were received. One jurisdiction (4 surveys), was unable to participate in the research, ten jurisdictions (21 surveys) were not involved in distance education and returned the surveys uncompleted. There were 56 surveys that were not returned. There were 60 school jurisdictions contacted in total, and the researcher received responses from 50 of the 60 jurisdictions.

Data Presentation and Analysis

SPSS (Statistical Package for the Social Sciences) and Microsoft Excel were used to analyze the data.

The coded questionnaire data were analyzed and percentage totals for each coded category were obtained. The data in relation to the majority of the questions were analyzed by conducting a percentage frequency analysis of all variables. Three questions in section five sought to determine what distance education teachers liked and disliked about their roles. These responses were clustered into themes: six themes were revealed for the "like", seven themes for the "dislike", and six themes for "emerging issues".

Summary

In this chapter, the development and the validation of the questionnaire were discussed including Research Design and Population, Development and Validation of the Questionnaire, Organization of the Questionnaire, Administration of the Questionnaire, and finally, Data Presentation and Analysis

Chapter IV

PRESENTATION OF RESULTS

Introduction

The research questionnaire was administered in the spring of 1994. This was a time when school jurisdictions in Alberta were undergoing amalgamation and a climate of change and uncertainty was in the air. The average Alberta teacher was feeling stress and concern due to the impending restructuring. The researcher was pleased with the number of responses to the questionnaire, the time taken by the respondents to complete the questionnaires and the general interest expressed in the results.

The results will be presented category by category, as the information flowed from the questionnaire.

Section I: Role, Responsibilities and Skills

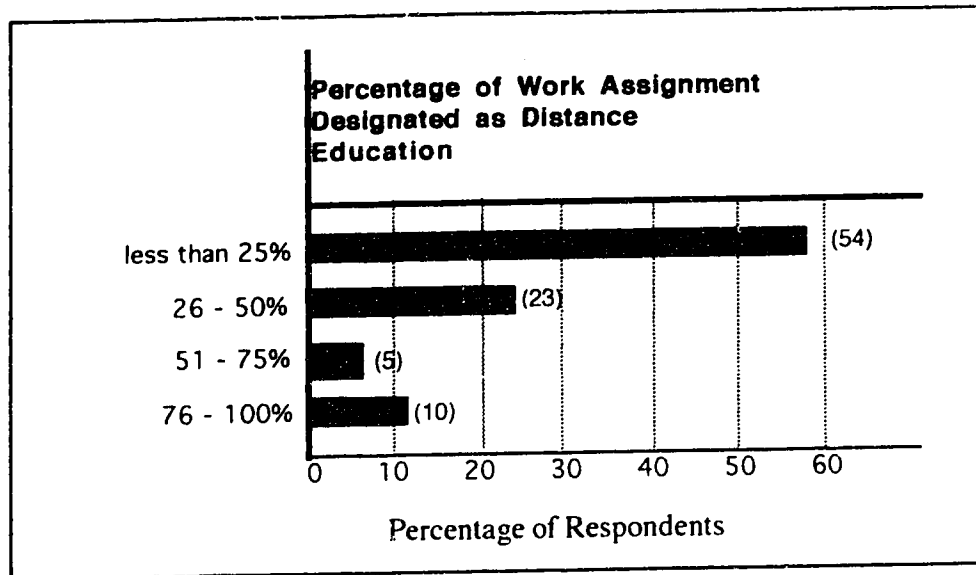
Seven questions were asked to elicit responses relative to the thesis subquestions noted below:

What are the characteristics and qualifications of the distance education teachers, and how did they become distance education teachers? Have they received specialized training for these instructional tasks?

How do these educators perceive their responsibilities and skills? Do they feel competent with their training and abilities?

The first question inquired as to the amount of time the teacher devoted to distance education duties. The results appear in Figure 1.

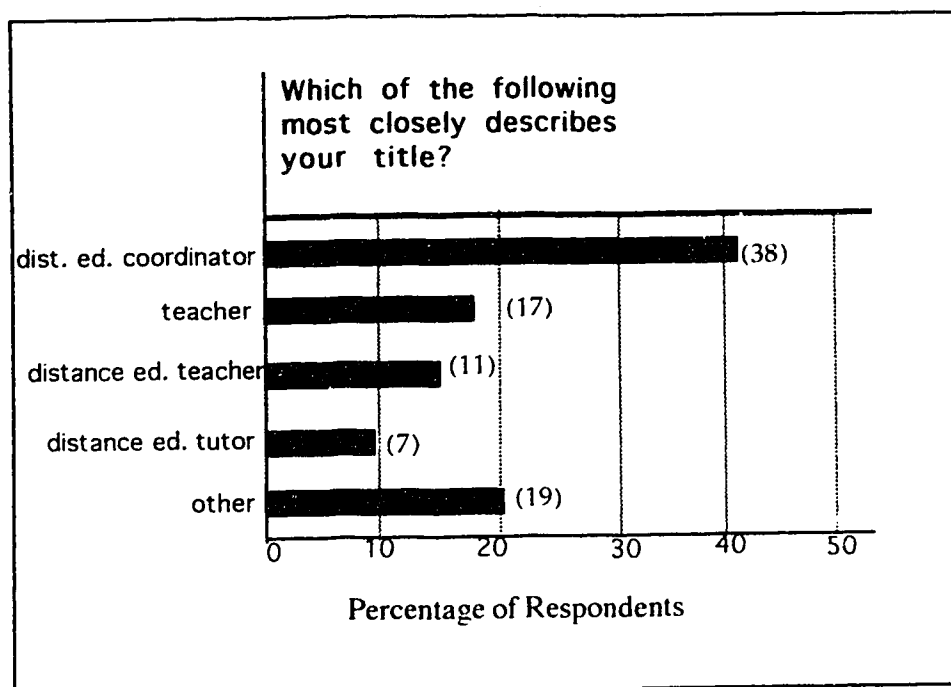
Figure 1: Percentage of Work Designated as Distance Education
(n = 92)



From the survey results, the majority of the teachers that responded to the questionnaire (83.7%) are involved on a part-time basis only. A very small percentage (10.9%) are involved in distance education full time.

The second question asked respondents to describe their working title. The results appear in Figure 2.

Figure 2: Title Used by Survey Respondents
(n = 92)



The title of distance education coordinator was the most frequently used at 40.9% followed by "other" at 20.4%. The following are the titles identified as "other" by respondents. Each response appeared once, unless otherwise indicated:

- teacher
- distance education tutor
- counsellor (2)
- counsellor/teacher
- distance learning supervisor
- distance education marker (2)
- half time distance education teacher
- marker/teacher
- marker/tutor
- principal (7)
- teacher assistant
- vice-principal

The results indicate that a variety of roles include some aspect of distance education.

The third question sought to determine the extent to which respondents spent their time on certain distance education-related activities. The results are displayed in Table 3.

Table 3: Time Spent on Distance Education Related Activities

What extent of your work time in distance education is devoted to the following activities?	none (%)	minimal (%)	some (%)	a lot (%)	a great deal (%)	n =
administration	19.8	16.5	32.9	15.4	15.4	91
course/curriculum development	61.8	24.7	10.1	1.1	2.2	89
marking	30.3	3.4	17.9	12.3	35.9	89
student contact	3.2	11.9	27.9	32.3	24.7	93
travelling	67.8	25.6	5.6	0.0	1.1	90

The data in Table 3 indicate that the majority of respondents spent significant amounts of time on student contact and marking and far less time on curriculum and course development. Very little time was spent by the respondents travelling.

The fourth question in this section sought to determine the respondents' level of preparation for their roles as distance education teachers. The findings are

summarized in Table 4. The number of respondents was 93, however the respondents were not limited to one answer, which accounts for the total percentage exceeding 100.

Table 4: Preparation/Training for Distance Education
(n = 93)

What preparation/training , if any, did you receive for your role as a distance education teacher?	%
help/assistance from other distance education teachers	60.2
a handbook for distance education teachers	44.1
meeting(s) with a distance education coordinator	52.7
formal training session(s)	14.0
other	11.8

The data in Table 4 indicate that only 14% of the respondents received formal training of any kind to prepare them for their roles in distance education. The teachers did receive assistance and help from other distance education teachers. The section entitled "other" is summarized below:

- through trial and error (2)
- experience (2)
- meet twice a year as part of consortium
- informal discussions with administration
- a marking guide
- started right in - none (2)
- the principal and I . . . worked it out
- initial help from school distance education clerical aide
- U of C courses

same methods as correspondence courses

Question five sought to determine which skills the respondents felt were important for a distance education teacher. The results appear in Table 5.

Table 5: Important Skills for a Distance Education Teacher
(n=93)

How important do you feel the following skills are for a distance education teacher?	not important (%)	minimally important (%)	somewhat important (%)	important (%)	very important (%)
knowledge of subject	2.1	8.6	21.5	31.2	36.6
teaching experience	0.0	4.3	19.4	43.0	33.3
effective communicator	6.5	6.5	22.6	37.6	26.9
knowledge of dist. ed. technology	2.1	15.1	27.9	38.7	16.1
understand student problems	1.1	4.3	13.9	41.9	38.7
understand admin. procedures	1.1	12.9	38.7	37.6	9.7

In summary, the respondents felt that all of the identified skills were important for a distance education teacher with the categories of 'understanding student problems' and 'subject knowledge' being highly rated, followed by 'teaching experience'. Respondents also felt that understanding administrative procedures was somewhat important for a distance education teacher.

Question six in section one sought to determine whether the respondents felt that training or support would be useful in particular areas. The results appear in Table 6.

Table 6: Usefulness of Further Training or Support

Indicate the extent to which you would find further training or support useful in the following areas:	very useful (%)	useful (%)	somewhat useful (%)	not useful (%)	n=
course/curriculum development	20.7	40.2	26.4	12.6	87
student evaluation	13.8	37.9	36.8	11.5	87
counselling at a distance	8.9	23.6	42.7	24.7	89
interpersonal skills	12.5	27.3	44.3	15.9	88
using telecommunication technologies	5.6	13.3	44.4	36.7	90

The data indicate an emphasis on course/curriculum development and student evaluation. Use of telecommunication technologies is of least importance.

The seventh and final question in this section inquired as to whether the respondents were part of a distance education consortium. There were 93 responses, and 65.6% (n=61) were part of a consortium, while the balance were not.

The majority of the respondents are part of a consortium, and yet as noted in Table 4, there were only 14% of the respondents that had received formal training. It would appear, therefore, that formal training is not part of the distance education consortia system in Alberta.

Summary of Section I: Role, Responsibilities and Skills

It appears that the profile of the "typical" distance education teacher is that of an individual working in distance education on a part-time basis only, utilizing the title of distance education coordinator. The majority of this educator's time is spent with the student: tutoring, advising, counselling. The balance of this teacher's time is being spent on marking, and, to a lesser degree, on administrative tasks. Very little time is spent on curriculum and course development, and less time yet is spent travelling. The typical distance education teacher receives little or no formal training in the area of distance education, and feels they would benefit from further training in the area of course and curriculum development and student evaluation. These educators feel that understanding student problems, along with subject knowledge and teaching experience are important elements of an effective distance education teacher's skill set. Finally, the majority of the distance education teachers belong to a distance education consortium.

Section II: Course Information

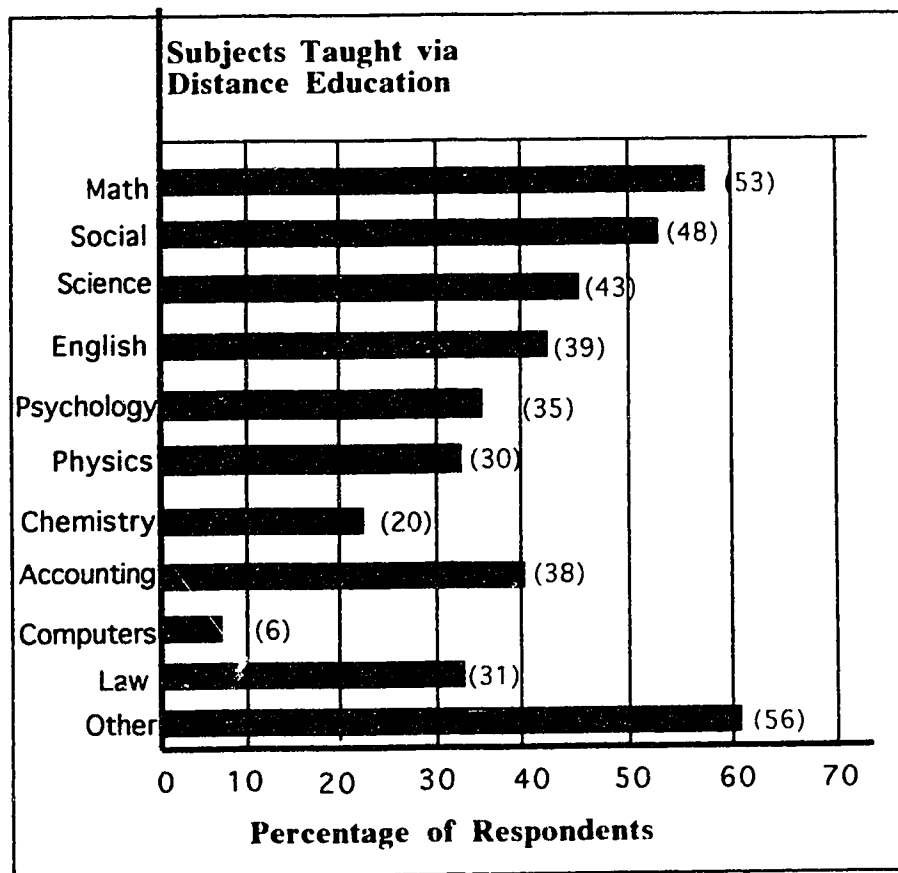
This section was divided into two sub-sections entitled Curricular Materials, which contained five questions, and Communication Technologies, which contained two questions. These questions were asked in order to elicit responses relative to the thesis subquestions noted below:

What courses are the teachers offering through distance education, who is responsible for preparation of curricular materials that are being used and what methods of course delivery are these teachers utilizing to fulfill their teaching duties?

What instructional and communication technologies are available to distance education teachers and which of these technologies are the teachers using most frequently?

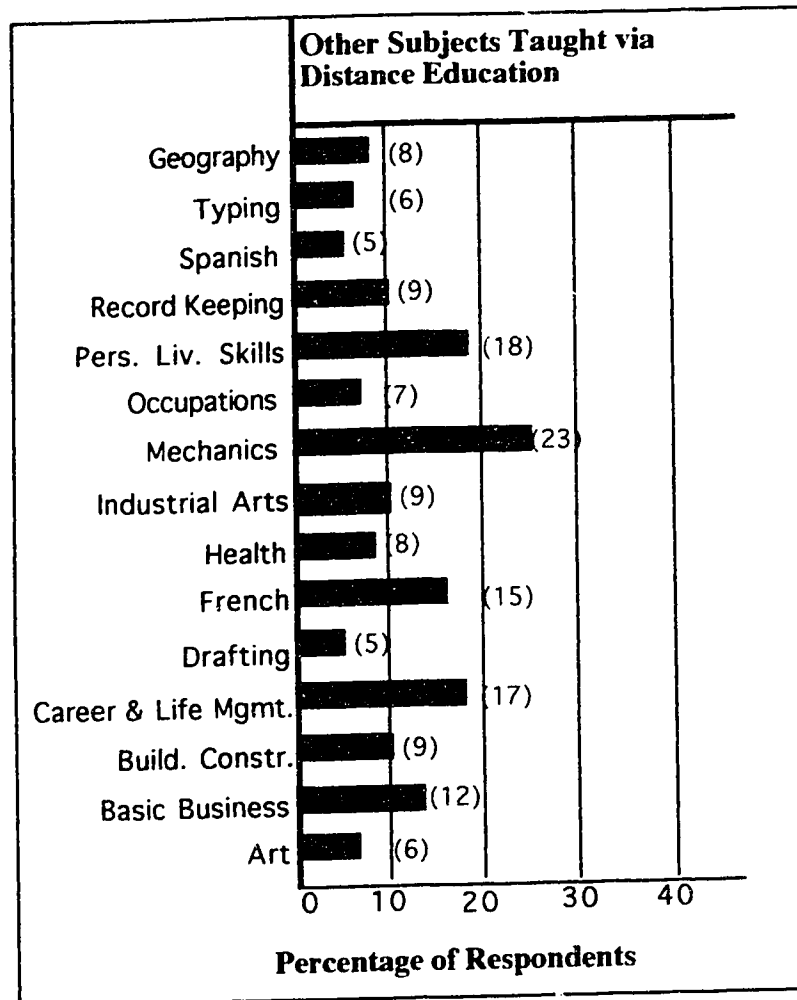
The first question in the sub-section Curricular Materials, asked the respondent to check the courses presently being taught via distance education. The results appear in Figure 3.

Figure 3: Distance Education Subjects Taught
(n = 93)



Mathematics was the most-offered distance education course, followed by Social Studies and then Science. The least popular was Computers. Since there was such a large response to the "Other" category, it is displayed in Figure 4.

Figure 4: Other Subject Taught Via Distance Education
(n = 93)



The second question asked who provides the curricular materials for the majority of courses taught. The responses appear in Table 7.

Table 7: Curricular Materials Used in Distance Education
(n=88)

Who provides the curricular materials for the majority of courses taught?	%
provided by the Alberta Distance Learning Centre	88.6
provided to me by the school or district	7.9
prepared by myself	2.3
other	1.1

It is clear that the majority of the curricular materials being used by the respondents in Alberta are provided by the Alberta Distance Learning Centre and that very little curricular development is being undertaken by the distance education teachers themselves.

The third question sought to determine whether the curricular materials were provided to the students in one package, in parts, or in other ways. Table 8 indicates the findings for this question.

Table 8: Method of Provision of Materials to Students
(n = 91)

The <u>majority</u> of the curricular materials are provided to the students:	%
in one package at the beginning of the course	61.5
in parts, as the student completes each unit or section	38.5

The majority of the students receive all the curricular materials at the beginning of the course.

Question four in this section sought to determine the type of curricular materials available for use by the distance education teacher. The results appear in Table 9.

**Table 9: Curricular Materials Available
for use in Distance Education**

(n = 93)

Are the following curricular materials available for your use in distance education instruction ?	%
print material	92.5
audio cassettes	67.7
video cassettes	64.5
video disks	5.4
computer-assisted instruction	39.8
other	2.2

The results indicate that 92.5% of the respondents stated that some print material is available in the distance education courses they teach. It is surprising that only 39.8% state that computer-assisted instruction materials are available, considering that Mathematics was the most popular course being delivered, and that such materials are readily available from the Alberta Distance Learning Centre.

Question five sought to discover how frequently the available curricular materials were used. The results appear in Table 10.

Table 10: Frequency of Use of Curricular Materials

Indicate the frequency of your use of the following curricular materials:	never (%)	rarely (%)	some-times (%)	often (%)	very often (%)	n=
print materials	4.1	2.7	4.1	9.6	79.4	73
audio cassettes	27.2	27.2	27.2	12.1	6.1	66
video cassettes	24.6	35.4	24.6	13.8	1.5	65
video disks	95.7	2.1	0.0	2.1	0.0	47
computer-assisted instruction	45.4	10.9	29.1	12.7	1.8	55
other	60.1	0.0	20.0	20.0	0.0	5

As expected, the print materials are the most frequently used curricular materials.

The second section in Course Information is entitled Communication Technologies. The first question in this section sought to determine which communication technologies were available to the respondents for their use as distance education teachers. The results appear in Table 11.

**Table 11: Communication Technologies Available for Use
in Distance Education**

(n = 93)

Are the following communication technologies available to you for your use in the distance education instruction?	%
audio teleconferencing	36.6
video teleconferencing	8.6
telephone	89.2
electronic mail/electronic bulletin boards	19.4
fax machine	96.8

Fax machines and telephones are available for the majority of distance education teachers.

The final question in this section asks respondents to indicate the frequency with which they use communications technologies. The responses are indicated in Table 12.

Table 12: Frequency of Use of Communications Technologies

Indicate the frequency of your use of the following communications technologies	never (%)	rarely (%)	some-times (%)	often (%)	very often (%)	n =
audio teleconferencing	67.7	18.5	4.6	4.6	4.6	65
video teleconferencing	93.8	0.0	3.1	1.6	1.6	64
telephone	2.4	17.9	25.0	38.1	16.7	84
electronic mail/electronic bulletin boards	71.4	17.5	6.3	3.2	1.6	63
fax machine	2.2	7.9	19.1	26.9	43.8	89
other	33.3	0.0	16.6	33.3	16.6	6

The fax machine and telephone are the primary communication technologies used by the individuals surveyed.

Summary of Section II: Course Information

In this section, we have learned more concerning the distance education teacher. We can now add to the profile of the part-time distance education teacher that this individual teaches primarily in the academic areas with a focus on mathematics, science and social studies. The majority of the teacher's curricular materials are provided by the Alberta Distance Learning Center, and these materials are provided to the student in one package, at the beginning of the course. These materials are primarily print-based, and the teacher uses the fax machine and

the telephone as the primary communication technology. There was limited use of computers, either for instruction or for communication, at the time the survey was conducted.

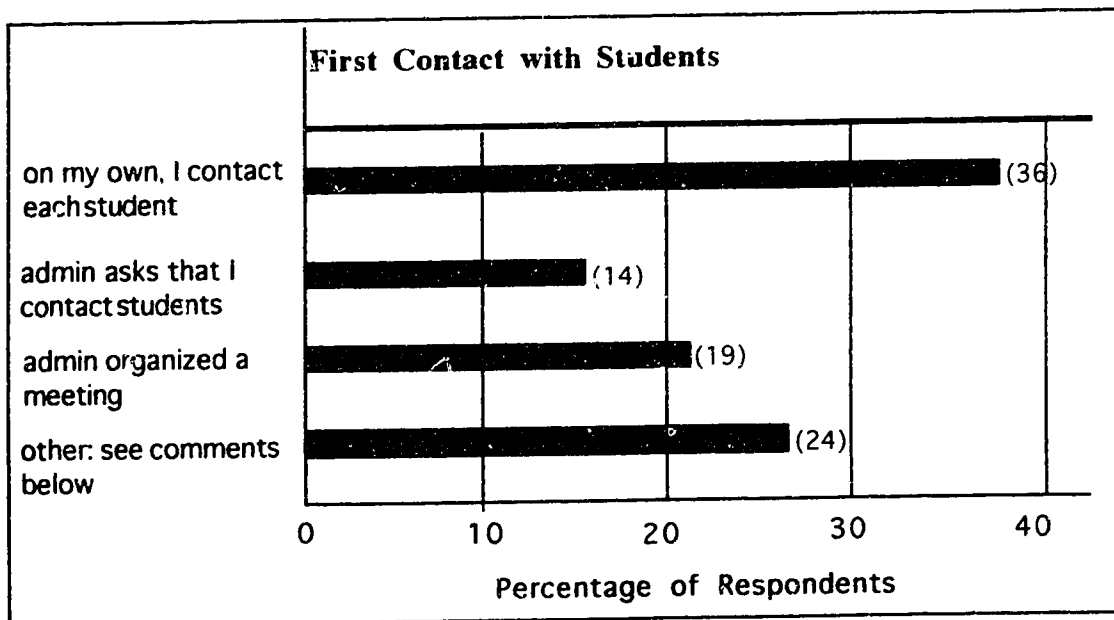
Section III: Interaction with Students

Section III contains nine questions. These questions were asked in order to elicit responses relative to the thesis subquestion noted below:

What are the nature of teacher interactions with students, and how do the teachers perceive these interactions?

The first question sought to determine how distance education teachers first contacted the students. The results appear in Figure 5.

Figure 5: First Contact with Students by Distance Education Teachers



Comments associated with "other" for the above data appear as follows:

written: course outline
just in marking assignments
students arrange their courses through me
classroom and telephone (4)
students contact me directly to take distance education (3)
semester visits only
I write them a letter with my first lesson
students register; I then encourage each student to phone
receive lessons to be marked
contact is established when necessary, not as a rule
students approach me (2)
most "tutor-fax" teachers first contact students through a fax (2)
I am the administrative coordinator and liaison person
contact is an expectation of the job

the distance education is scheduled into blocks at our school and I see the
students when they come to class
only if there is a problem

The rule for contacting students appears to be a "non-rule." The most popular selection "on my own I contact each student" combined with the responses for "other" or accounts for 64.5% of the responses. This indicates that, even though the majority of the teachers who responded to the questionnaire were part of a consortium, no guidelines were being followed with respect to the initial contact with distance education students.

The second question in this section sought to determine the distance education teachers' feelings concerning how influential their instruction may be on their students. Table 13 reports the responses.

Table 13: Influence of Distance Education Teaching on Students
(n = 89)

Indicate what influence you think your distance education teaching has on your students' ability to:	none (%)	insignificant (%)	neutral (%)	significant (%)	a great deal (%)
acquire independent study skills	2.2	9.0	29.2	40.4	19.1
understand course content	6.7	11.2	31.5	44.9	5.6
apply new knowledge to practical situations	7.8	15.7	46.1	25.8	4.5
prepare for exams	3.3	14.6	38.2	35.9	7.8
develop a positive attitude toward the course	4.5	8.9	40.4	38.2	7.8

Again, the bulk of the respondents appears to subscribe to the position that their distance education teaching had a positive influence on the students in the categories noted above. As much of a distance education student's work is performed outside the guiding eye of a teacher, the acquisition of independent study skills as a spin-off benefit of distance education instruction is apparent, at least from the perspective of the teachers. A further study concerning the opinions of distance education students would confirm or contrast with this data.

The third question in this section sought to determine the method that distance education teachers used to contact their students. These data appears in Table 14 below.

**Table 14: Methods Used for Ongoing Contact with
Distance Education Students**

How frequently do you use the following methods to contact your students?	never (%)	rarely (%)	some- times (%)	often (%)	very often (%)	n=
face-to-face meetings	6.8	15.9	17.0	18.2	42.1	88
telephone	27.5	18.8	32.5	16.3	5.0	80
fax	39.0	8.5	10.9	13.4	28.0	82
electronic mail/electronic bulletin boards	88.2	7.4	2.9	1.5	0.0	68
other	44.4	22.2	11.1	0.0	22.2	9

The following is a sample of the comments associated with the "other" category, comprising nine respondents:

written comments on assignments turned in (6)
courier (3)

Face-to-face meetings followed by faxing students were the primary methods of contacting students. The least popular method was the use of computer technology.

The fourth question sought to determine how distance education students contacted the teachers. Would they use the same method that the teachers used? The results appear in Table 15 .

Table 15: Method Used by Distance Education Students to Contact the Teachers

How frequently do your students use the following methods to contact you?	never (%)	rarely (%)	some-times (%)	often (%)	very often (%)	n=
face-to-face meetings	12.9	15.3	11.7	15.3	44.7	85
telephone	25.0	25.0	31.3	10.0	8.8	80
fax	42.7	9.8	14.6	7.3	25.6	82
electronic mail/electronic bulletin boards	91.0	5.9	2.9	0.0	0.0	67
other	62.5	12.5	0.0	12.5	12.5	8

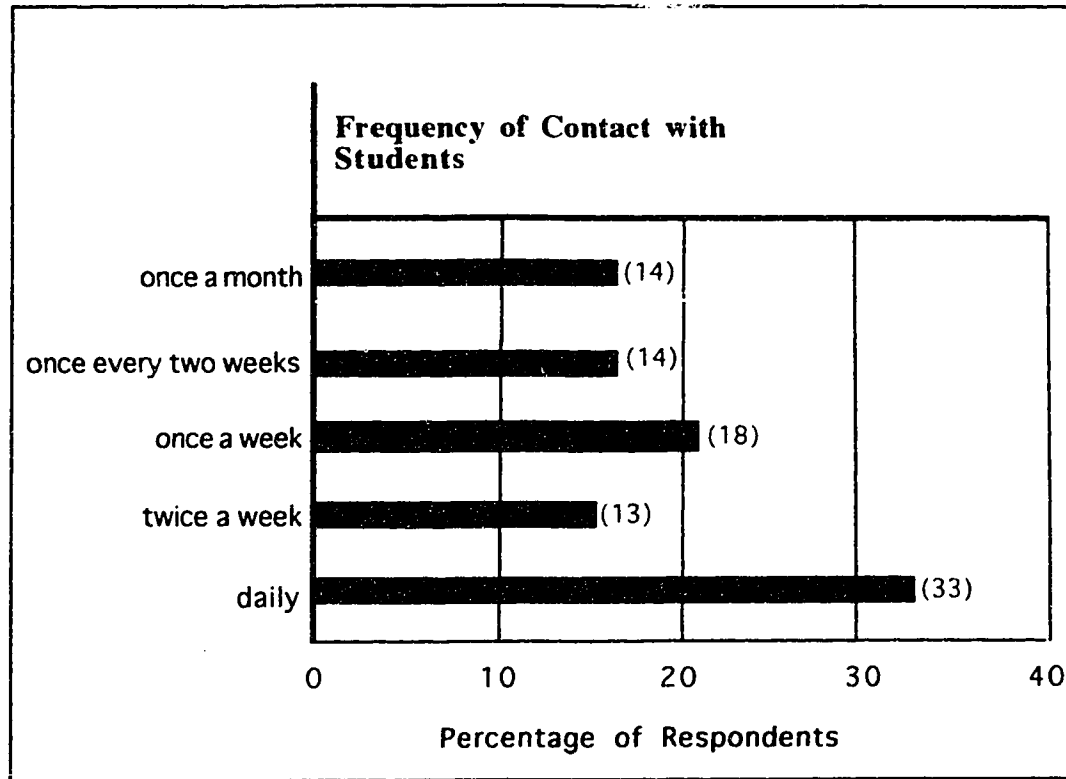
The following is a sample of the comments associated with the "other" category:

do not interact
courier

Again, face-to-face and fax are the most popular methods of contacting teachers for assistance. The data indicates that the method selected by the teacher to contact the student might become the method of contact for the students to use to contact the teacher.

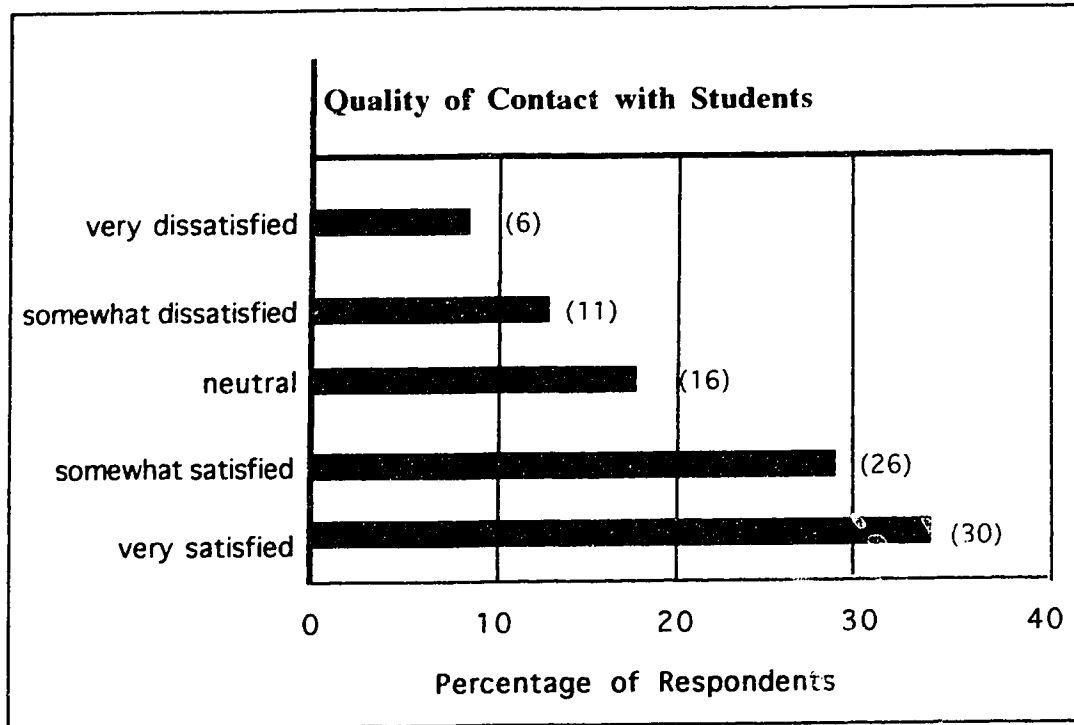
Question five sought to determine the frequency of contact between teacher and student. This information is contained in Figure 6.

Figure 6: Frequency of Contact Between Teacher and Student
(n = 88)



Question six sought to determine how the distance education teachers felt about the quality of their contact with students. The results appear in Figure 7.

Figure 7: Quality of Contact with Distance Education Students
(n = 89)



The results indicate that 62.9% of the respondents felt somewhat satisfied to very satisfied with the quality of the contact with their students, while slightly over 19% were very to somewhat dissatisfied with the quality of the contact they have with their students.

Question seven inquired as to the type of feedback most regularly given to distance education students. The results appear in Table 16.

Table 16: Type of Feedback Given to Students on Assignments
(n = 82)

What kind of feedback do you <u>most regularly</u> give students on their assignments?	%
a grade or mark only	6.1
a grade with written comments	80.5
other	13.4

The following is a sample of the comments associated with the "other" category:

I don't mark
they do it all on their own
grade is provided by consortium marker
I report the grade to them as it comes back on the machine.
I add comments and I have them do corrections where necessary.

The results appear to indicate that the majority of distance education teachers provide their students with a grade with written comments. It might be interesting to compare these data with those associated with traditional classroom-based teaching.

Question eight was asked to elicit responses with respect to turnaround time for assignments and marking. The results appear below in Table 17.

Table 17: Average Turnaround Time for Assignments and Marking

(n = 86)

What is your average turnaround time for assignments and marking?	%
same day	5.8
next day	52.3
next week	32.6
end of month	1.2
other	8.1

The following is a sample of the comments associated with the "other" category:

3-4 school days

3 days

marking is done by ADLC

depends on how many lessons are turned in at once

when assignments are returned, I go over them with the students when the grades are low

2 to 3 days

3 day turn around

4 to 5 days

In summary, over 90% of students receive their assignments back from their teachers within seven days, with 52.3% receiving assignments the next day.

Question nine sought to determine the method distance education teachers use to return assignment. The information is contained in Table 18.

Table 18: Method of Returning Student Work
(n = 83)

How do you generally return your students' work?	%
face to face	32.6
mail	4.8
fax	25.3
courier	21.7
other	15.7

The following is a sample of the comments associated with the "other" category:

return to distance education coordinator
 at the office at school; secretary
 it comes to the school by fax, I record the mark and place it in their mailbox
 returned by ADLC
 return to distance education coordinator
 through coordinator
 through teacher-assistant
 to distance education teacher
 give to distance education coordinator
 given to distance education secretary
 return bin in office
 through coordinator
 personal delivery
 DLP coordinator

There appears to be a great variety of return methods for assignments, with face-to-face and faxing being the most popular at almost 60% combined.

Summary of Section III: Interaction with Students

The profile of the distance education teacher continues to build. We now see a teacher that uses his or her own judgment as to initially contacting the students. The majority of the respondents appear to subscribe to the position that their distance education teaching had a positive influence on the students in the areas of acquiring independent study skills and understanding course content. Teachers and students use face to face meeting, the fax machine and the telephone as the primary methods of contacting one another, and the average frequency of this contact appears to be either daily or at least once a week for the majority of the respondents. These teachers are, on the whole, satisfied with the quality of their contact. The teachers give a grade with written comments on the assignments returned to students, which for the most part is the next day followed by the next week. The assignments are returned to the students either face to face or by fax, which is in the same manner as the teachers and students primarily contact one another. The profile is developing into a picture of a teacher with a high level of contact with his or her students, who is reasonably satisfied with the quality of the contact, and the contact is primarily of a personal nature, with limited use of telecommunication technology. A quick average turnaround time for assignments together with written comments accompanying the grade indicates a dedicated professional with a keen interest in maintaining contact with students.

Section IV: Participant Data

This section asked seven questions relative to statistical information on the participants.

The first question asked the gender of the participants. Sixty four of the respondents (68.8%) were male and twenty eight (30.1%) were female.

Question two sought to determine the age of the respondents. These data appear in Table 19.

Table 19: Age of Distance Education Teachers
(n = 92)

Age of Respondents	%
30 or less	15.2
31 - 35	11.9
36 - 40	7.6
41 - 45	29.3
46 - 50	26.1
51 - 55	5.4
56 - 60	2.2
61+	2.2

Over 70% of the respondents were between the ages of 41 and 50.

Question three sought to determine the average number of years of teaching experience held by the distance education teachers. The average number was 15 years.

Question four was asked to determine the respondents' employment status in the school jurisdiction. This information is contained in Table 20.

Table 20: Employment Status of Distance Education Teachers

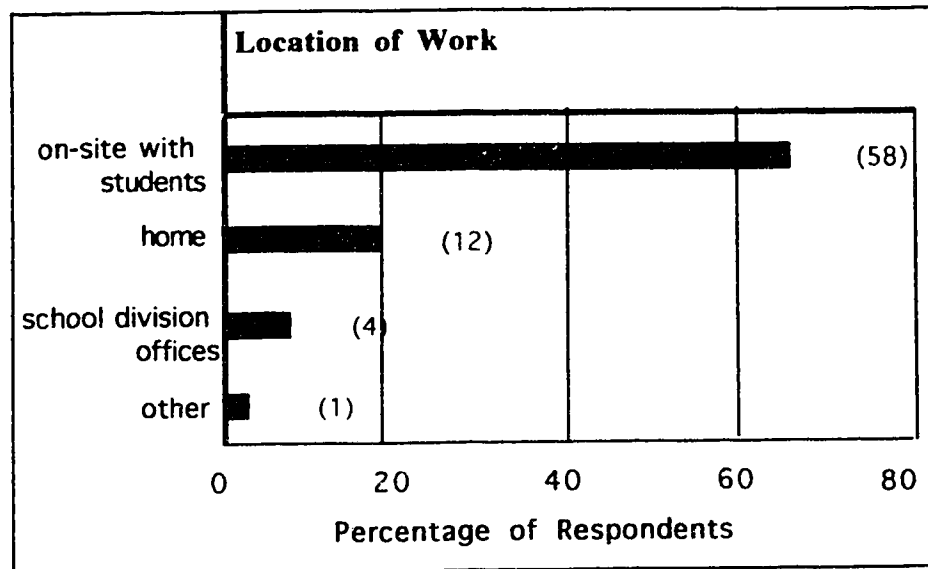
(n = 91)

Employment Status in the School Division	%
permanent full time	81.3
permanent part-time	6.6
contract (part or full)	5.5
temporary (part or full)	6.6
other	0.0

From Table 20, it would appear that distance education teachers are predominantly permanent, full-time employees of the school jurisdiction.

Question five sought to determine where the distance education teacher did most of the work associated with the position. Figure 8 provides this information.

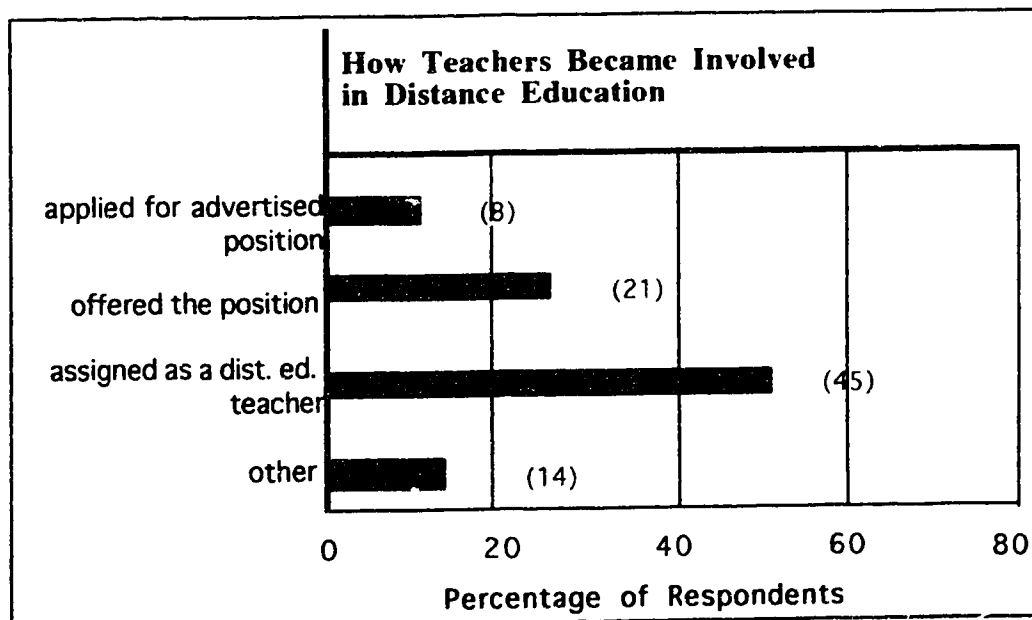
Figure 8: Location of Work
(n = 91)



The majority of the teachers (63.7%) are working on-site with students.

Question six sought to determine how the distance education teachers became involved in distance education. The results of the question appear in Figure 9.

Figure 9: How Teachers Became Involved in Distance Education
(n = 88)



The majority of the teachers (51.1%) were assigned as a distance education teacher.

Question seven sought to determine how long the distance education teachers had been involved in distance education. The results appear in Table 21.

Table 21: Years Involved in Distance Education
(n = 91)

Years Involved in Distance Education	%
less than 2 years	31.8
2 - 3 years	14.3
4 - 6 years	48.3
7 years or more	5.6

The majority of the respondents have been involved in distance education from four to six years, followed by a group of over 30% would have been involved for less than two years.

Summary of Section IV: Participant Data

The profile of the distance education teacher now includes the personal data, and we see a primarily male teacher with a permanent teaching position who is approximately 45 years of age, with an average of 15 years of teaching experience in general, and approximately four years of experience with distance education. This teacher was likely assigned to his role as a distance education teacher and does most of his work on site with students.

Section V: General Comments

Section V asked five questions. These questions were asked to elicit responses relative to the thesis subquestion noted below:

What do the distance education teachers like about their jobs? Dislike?

Question one sought to determine if there were any additional resources, or allowances made to available to the distance education teachers. These additional resources, concessions, accommodations or allowances (commonly called perquisites) are measurable components that might influence a teacher's level of job satisfaction. The results appear in Table 22.

Table 22: Additional Resources or Allowances Available to Distance Education Teachers

(n = 93)

What additional resources, concessions, accommodations, or allowances (if any) are made available to support you in your role in distance education?	%
travel mileage	25.8
a computer	36.6
freedom from extra-curricular activities	5.4
freedom from supervision	5.4
a more flexible schedule	18.3
fewer classes	46.2
other	15.1

"Other" responses included:

total support from principal/coordinator in regard to policy adherence, etc.
mark on own time and receive an honorarium for each module marked
part of my teaching assignment as vice-principal

I have secretarial help: types all exams and faxes and helps in the running of
my classroom

administration of distance education students is part of counsellor's duties in
my school.

80 minutes twice a week

it is part of my regular teaching assignment

none- just added duty

no regular classes

secretarial assistance

fits regular classroom planning

fax

The majority of the respondents indicated fewer classes as an
accommodation made available, followed by a computer and then travel mileage.

Question two asked, "Indicate the extent to which you agree or disagree
with the following statements regarding distance learning. Circle the number on the
scale from 1 to 5 that best approximates your answer." The results of this question
appear in Table 23.

**Table 23: Distance Education Teachers' Comments
Regarding Distance Learning**

Indicate the extent to which you agree or disagree with the following statements regarding distance learning.	strongly agree (%)	agree (%)	neutral (%)	disagree (%)	strongly disagree (%)	n =
When it comes to helping students learn, distance education teaching is very similar to teaching in the traditional classroom	2.3	13.9	10.5	46.5	26.7	86
My work as a distance education teacher has helped me improve my general teaching skills.	8.5	20.7	39.0	24.4	7.3	82
I find distance education teaching to be a frustrating experience.	9.6	18.7	24.1	31.3	19.3	83

The first section of question two stated: *When it comes to helping students learn, distance education teaching is very similar to teaching in the traditional classroom.* The majority of the respondents disagreed with this statement. Their individual reasons may vary, but the primary differences between traditional teaching (lecture to a block of students, all taking the same subject at the same level) versus distance education teaching (facilitating a group of students on or off site in multi-subjects and at multi-levels) would indicate that the distance education teachers are using different teaching strategies than the traditional classroom teacher.

The second section of question two stated: ***My work as a distance education teacher has helped me to improve my general teaching skills.*** The majority of the responses to this question were neutral. It should be noted that the majority of the teachers who responded had fifteen years of teaching experience, and therefore had been teaching a period of time prior to commencing distance education instruction. Given the response to the first question in this section, it might be surmised that distance education teaching is different, but that teachers are using general teaching skills developed in the traditional classroom.

The third section of question two stated: ***I find distance education teaching to be a frustrating experience.*** There was general disagreement with this statement, which would indicate that the majority of the teachers enjoy their experiences in distance education. They find it different, but not necessarily frustrating.

Question three was very open ended and asked, "What do you enjoy most about being a distance education teacher?" There were 71 responses to this question and these responses were clustered into six themes as shown in Table 24.

Table 24: What Distance Education Teachers Enjoy Most About the Position

(n = 71)

Responses (%)	Theme	Sample Comments
23.9	Flexibility/Freedom/Variety for the Teacher	<ul style="list-style-type: none"> • variety of students, courses, delivery methods • being my own boss: organizing and administrative duties • flexibility I have in working from home for the most part.
22.5	Opportunities for Students	<ul style="list-style-type: none"> • students getting courses they could not get at school, allowing them to graduate or take an interest course
16.9	One-on-One Contact with Students	<ul style="list-style-type: none"> • getting to know students on a one-to-one basis • more relaxed atmosphere in the distance education classroom
15.5	Seeing Students be Successful	<ul style="list-style-type: none"> • I enjoy seeing students succeed • seeing students realize and reach their goals achieving success when many had given up completion of high school and graduation
14.3	Fewer Hassles for the Teacher	<ul style="list-style-type: none"> • I have fewer class lessons to prepare and it has freed up some organizational and paper work type of planning • less hassle from students and parents and administration
7.0	Teacher Contact with Students from Other Schools	<ul style="list-style-type: none"> • gives me contact with students outside my school jurisdiction

Question four asked, "What do you enjoy least about being a distance education teacher?" Again, there were 71 responses to this question and these responses were clustered into seven themes, as indicated in Table 25.

Table 25: What Distance Education Teachers Enjoy Least About the Position

(n = 71)

Responses (%)	Theme	Sample Comments
32.4	Non-Motivated Students/ Chasing and Nagging Students	<ul style="list-style-type: none"> • nagging students to get their assignments done on time
19.7	Marking	<ul style="list-style-type: none"> • the marking load - some modules take several hours to grade with corrections and comments • marking is boring work
16.9	Lack of or Limited Contact with Students	<ul style="list-style-type: none"> • lack of personal contact with students • little personal contact with some students
11.3	Increased Work Load	<ul style="list-style-type: none"> • not having time to handle all these challenges • the paperwork
8.5	Quality of Materials	<ul style="list-style-type: none"> • most of the instruction is paper and pen • current quality of materials, although they appear to be improving. • lack of chance to expand beyond standard materials
5.6	Negativity about Distance Education	<ul style="list-style-type: none"> • the negative remarks from traditional teachers about the distance education program
5.6	Dealing with Administration	<ul style="list-style-type: none"> • interference by other administration in the running of distance education

The final question in the survey asked, "Do you feel there are any emerging issues in the area of distance education? If so, feel free to note them below." There were 42 responses to this final question, and again, these responses were clustered into the following themes as noted in Table 26.

Table 26: Emerging Issues in Distance Education

(n = 42)

Responses (%)	Theme	Sample Comments
28.6	Impact on Traditional Classrooms and Teacher Workloads	<ul style="list-style-type: none">• downsizing of numbers of teachers• I think it may be seen as a way to replace classroom teachers - not a good idea.
26.2	Curriculum Development: CTS, access to question banks, quality of courses	<ul style="list-style-type: none">• CTS - need to develop new modules; need to improve contact with tutor markers.• Current distance education materials provided by ADLC do not take into account the need for frequent testing to allow for long-term retention.
19.0	Technology: How will technology impact distance education?	<ul style="list-style-type: none">• Quality of courses and tying them in closer to technology
16.7	Cutbacks in Educational Funding: how will cutbacks impact distance education?	<ul style="list-style-type: none">• We need more money; funding
7.1	Student/Teacher Contact: How can this be improved?	<ul style="list-style-type: none">• At present, there is very little interaction between teacher and student that is not in written form. There will need to be research done in this area.
2.4	Home Schooling: How will home schooling impact distance education?	<ul style="list-style-type: none">• Attendance in public schools will continue to drop which will further reduce funding. Public schools will not be able to compete with this.

Summary of Section V: General Comments

The General Comments section of the questionnaire provided the respondents with an opportunity to express their points of view without the constraints of the questionnaire format.

One of the themes that emerged from the inquiry concerning what the teachers enjoyed about their position was the aspect of one-on-one contact with students. The teachers enjoyed this personal contact and the opportunity that this contact provided for them to get to know the students better. In the section asking what teachers liked least about distance education, a similar number of respondents noted the lack of personal, one-on-one contact with students. This indicates that the distance education teachers enjoy their contact with the students, and feel that increased contact with their students would increase their job satisfaction.

The distance education teachers enjoy the flexibility and variety of teaching tasks, and can see the opportunities that are available to students. At the same time, the teachers are frustrated by having to constantly nag students to complete assignments. These comments develop the profile of the distance education teacher as a caring professional who wants to see the students under that teacher's care be successful.

Summary of Chapter IV

The results were presented in this chapter as the information flowed from the questionnaire, section by section. The profile of the distance education teacher developed from this information, and the composite individual that emerged is of a male teacher, with over fifteen years of teaching experience, employed by a school jurisdiction and holding a permanent contract. However, the teacher is involved in

distance education on a part-time basis only. The majority of this educator's time is spent with the student: tutoring, advising, counselling, with the balance being consumed by marking or administrative tasks. Limited time is spent on curriculum and course development, and less time yet is spent travelling. Distance education teachers receive little or no formal training in the area of distance education, and feel they would benefit from further training in the area of course and curriculum development and student evaluation. Distance educators feel that understanding student problems, along with subject knowledge and teaching experience, are important elements of an effective distance education teacher's skill set. The majority of the distance education teachers surveyed belong to a distance education consortium.

The distance education teachers instructs primarily in the academic areas, with a focus on mathematics, science and social studies. The majority of the curricular materials are provided by the Alberta Distance Learning Centre, and these materials are provided to the student in one package, at the beginning of the course. The course materials are primarily print-based, and the teacher uses the fax machine and the telephone as the primary communication technologies. There was limited use of computers, either for instruction or for communication, at the time the survey was conducted.

Turning now to the distance education teacher's interaction with students, we find a teacher that uses his or her own judgment as to initially contacting students. Teachers and students use face to face meetings, the fax machine and the telephone as the primary methods of contacting one another

Additional resources, allowances, or accommodations provided to support the distance education teacher included fewer regular classes and a computer.

Teachers surveyed felt that distance education instruction was very different than traditional classroom teaching, but not necessarily frustrating. The teachers

enjoyed the flexibility, freedom and variety provided by the distance education model, and they also found the extra opportunities that distance learning provided to their students to be a plus. What did distance education teachers enjoy least about their position? By far, non-motivated students and the need to chase and nag students to complete assignments were the areas that received the highest negative response.

Teachers were asked their opinion on emerging issues in the area of distance education, and they responded with concerns relating to the impact of distance education on traditional classrooms and teacher workloads. One quote stated, "I think it may be seen as a way to replace classroom teachers." Curriculum development was also a concern to the teachers. Many felt that the student learning modules needed to be updated and improved.

In conclusion, the profile of the distance education teacher is one of a highly motivated, flexible, professional individual who enjoys student contact and change. This teacher appears to be willing to develop skills in this new area, and even though the teacher was asked to fill the positions (as opposed to requesting a change), the responses are positive and the distance education teacher is, for the most part, focused on the concerns of the students.

Chapter V

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Introduction

Chapter 5 is divided into three sections. The first section contains the summary of the research. Section two contains recommendations emerging from the research. Section three addresses future considerations and section four concludes the study.

Summary of the Research

The purpose of the research was to investigate and describe the role of distance education teachers in Alberta's rural schools and to identify critical issues that may be associated with this role. The profile of the distance education teacher that emerged from the results of the questionnaire provides a framework upon which to explore further the changing role of the rural educator.

The questionnaires were mailed to 60 rural school jurisdictions across Alberta in the spring of 1994. In total, 174 questionnaires were mailed and 93 usable questionnaires were returned. Responses were received from all 60 school jurisdictions. Ten of the jurisdictions contacted were not involved in distance education. Only one jurisdiction (4 surveys) chose not to participate in the survey.

In light of the fact that no follow-up letters or telephone calls were made, the response to the questionnaire was positive as the researcher received over 53%

usable return rate on the individual questionnaires. If the questionnaires were categorized by jurisdiction, the return rate from jurisdictions was 83%. It should be noted that in the pilot study, the time necessary to complete the questionnaire ranged from 18 minutes to 26 minutes, which is a lengthy commitment from participants. If it was available to the researcher, the name of the distance education teacher was used in the covering letter. This personalized approach may have increased the return rate.

The questionnaire was predominately check boxes, with an opportunity in each section to explain further. Many teachers took the time to include additional information in this area. The final section of the questionnaire invited general written comments. Of the 93 participants, 71 teachers completed this section. This was a surprise to the researcher, given the length of the questionnaire and the busy time of year it was administered.

An offer was extended to the respondents to receive the results of the questionnaire, and 79 teachers responded positively by providing their names and addresses for future contact.

It may be generally concluded that there is a positive interest on the part of distance education teachers to learn more about the structure of distance education in Alberta's rural schools. In Balen's (1995) study of rural teachers' dissatisfiers, she noted that the greatest dissatisfier for rural teachers in British Columbia was lack of professional interaction with other educators--particularly those in the same subject field. One quoted teacher stated:

It's really frustrating. I'm the only French teacher for grades 7 through 12, and this year the new French curriculum was implemented. In the staff room, I have no one to ask for curriculum ideas . . . I really can't turn to the math teacher for advice.

The rural distance education teacher may well be suffering from the same dissatisfier here in Alberta, and the research questionnaire provided an opportunity

to contact other teachers in parallel teaching positions.

Hough (1992) looked at general employment conditions for distance education teachers and noted:

The researcher's opinion, supported by many examples throughout this study, is that the employment practices associated with distance education are unacceptable, because they are inferior to the regulated conditions provided for classroom teachers.

When beginning this study, it was anticipated by the researcher that distance education teachers would be a disgruntled, overworked and generally negative collection of teachers who were on the fringe of the school environment. This turned out to be not the case at all. The profile of the Alberta distance education teacher that developed included the following features:

- involved in distance education only part of the working day
- uses the title "distance education coordinator"
- the majority of time is spent on marking assignments
- has received little or no formal training in the area of distance education
- feels that understanding student problems and knowledge of the subject are important skills for a distance education teacher
- would find further education in course/curriculum development useful
- primarily teaches mathematics and social studies
- uses print materials provided by the Alberta Distance Learning Centre, which are distributed to the students in sections
- uses the fax machine as the primary communication technology, followed by the telephone
- feels that distance education allows the students to increase their independent study skills
- has daily contact with students, and the teacher is very satisfied with the quality of this contact
- provides a grade with written comments on the student work, and returns the assignments to the students the next day

- is between 40 and 50 years of age, is a male, and has a permanent contract with the school jurisdiction
- receives a computer and fewer regular classes to teach as compensation and enjoys the flexibility, freedom and variety that comes with distance education teaching

Recommendations Emerging from the Research

What future considerations and recommendations have been revealed by this research? Teachers representing fifty school jurisdictions across Alberta took the time to provide their responses to a lengthy questionnaire at a busy time of the year. Their profile indicates a dedicated, conscientious collection of teachers, united by their desire for improvement for the rural students they serve. The following recommendations flow from the teachers' responses:

1. recognition or designation of distance education as a specialty area of instruction

The Alberta Teachers' Association has, since its inception, supported and funded specialist councils. One of the newer councils, formed in 1981, was the Computer Council. This council crosses all subject areas and attracts teachers who are involved with computer technology in the delivery of their instruction. It seems appropriate that teachers involved in distance education would also warrant a specialist council. This organization could foster professional development activities for distance education teachers, assist in the reduction of teacher professional isolation concerns for rural teachers, and provide a sounding board for teacher concerns. In the research conducted by Hough (1992) he noted that there appeared to be disparity between distance education teachers from jurisdiction to jurisdiction. The formation of a specialist council would help to address this concern.

2. development of curriculum and instruction courses at Alberta universities in the area of distance education.

Teachers surveyed felt they would benefit from courses in the area of curriculum design and student interaction. It would seem appropriate that this training be provided at the university level. The majority of new teachers find themselves in the position of accepting teaching placements in rural Alberta. It seems unfair to expect these new teachers to fulfill even a partial role in the area of distance education without any formal training. Courses for undergraduates as well as graduate courses would provide the growing number of teachers that find themselves involved in distance education with an opportunity to meet other teachers in this specialty.

The survey results also indicate the limited use of computer technology by the distance education teachers, despite the availability of the technology. Curriculum and instruction courses with a focus on distance education technologies would increase the graduating teacher's expertise in the use of these technology, if that is the goal of Alberta Education.

3. development by Alberta Education of guidelines for distance education teachers in Alberta secondary schools

The distance education teachers surveyed were following guidelines established by their school administrator and/or their consortium. In many cases, the teachers developed their own teaching methodologies and standards. An example of this is in the limited use of technology by the distance education teachers contacted. The teachers indicated that the technology was available in the majority of instances. However, it was not being fully utilized, due perhaps to the part-time nature of the distance educator's role or the teacher's lack of expertise in the use of the technology. Computers were made available to many of the distance education

teachers as an accommodation or allowance for accepting the role. However, this use of technology was not reflected in the area of instruction. Print-based materials were the primary tool of instruction, and communication was either via fax machine or face to face. It was apparent that paper still drives distance education course in rural Alberta.

Guidelines for the role of the distance education teacher could include:

- mandatory use of technology in specified subjects, using paper-based curriculum materials as support to the technology. At present, the technology supports the paper product in most areas of instruction. The distance education teachers surveyed were not high users of technology. However, if the role of the distance education teacher included the requirement that the teacher be skilled in the use of technology, perhaps the usage would increase. At the very least, this "specialty training" would provide definition and structure to the role of the distance education teacher.

- in-service or pre-service training in the area of instructing via distance education. This training could be at the local level, at the university level, or be provided through a distance education association. The majority of the respondents to the questionnaire were members of a distance education consortium. However, they had received no formal training in the area of distance education. It would appear that the role of professional development of distance education teachers is not part of the consortia's mandates.

- definition of student/teacher ratios in distance education. Traditional classroom teachers have pupil/teacher ratios established as benchmarks in their school or jurisdiction. In the anecdotal comments of several teachers who responded to the questionnaire, teachers were asked to have distance education students "sit in the back of the classroom" for a semester. The teacher was to assist the students when required and monitor the students' attendance and behavior. In

some cases, teachers were asked to mark for these students; in other cases, the marking and evaluation was done externally. There are no ratios or guidelines that the researcher was able to discover that encompass the role of the distance education teacher that related to a fixed number of students, or credits, or courses that the teacher is expected to coordinate, supervise, instruct or facilitate.

Future Considerations for Discussion

Where will the increased involvement of Alberta's rural schools in distance education take us? The following are future considerations that are cause for reflection and are included here for discussion purposes.

1. move toward open learning and modularized instruction

As students increase their involvement in distance learning courses, the concepts of open learning, competency-based education, multi-level and multi-subject instruction are considerations. Are we returning to the "one-room schoolhouse" with many students at varying levels all involved in education with the teacher as the facilitator? Distance education may provide the model for the future. If distance education students are successful at developing independent learning styles, time management skills, and responsibility for their own education, will this not carry forward to post-secondary education and all their future learning? This could inevitably impact on the post-secondary institutions, if it has not already, in pressing those institutions for distance education courses to meet the specialized needs of their clients.

Modularized instruction allows the student to successfully pass particular modules, which then does not require the repeating of an entire course for credit. The Career and Technology Studies courses are module-based, and combined with distance learning materials, the students will be offered more opportunities to customize their secondary education. The impact on the role of the teacher is

obvious: a short-order cook in a fast food restaurant, or a shepherd with a wide-ranging flock? Either way, the sun is setting on the lecturer and "batch processing" of students is drawing to a close.

2. move toward home schooling, private schools and charter schools

The Alberta Distance Learning Centre has proven itself successful in developing course materials that are superior print based. Independent software and courseware developers are producing computer-assisted instruction for the independent learner. Personal computer technology continues to advance. Is there really a need for the student to ride a bus to the school to receive his or her education? If the student has a home computer, the advantages of home schooling are evident.

The move toward home schooling is growing. In 1988, there were 818 registered home schoolers. Hatton (1993) noted that during 1993, 3,600 Alberta children were being taught at home, which is a 41% increase over 1991. Alberta's provincial school foundation grant is between \$2,100 and \$2,500 per pupil and is paid to the school board where the child is registered. The school board has the option of passing along a portion of that amount to the parent. In 1992, Vermilion School Board returned \$1,100 to the parents of senior high school students, who were then responsible for purchasing materials and supplies for their child. The board assigned a teacher that visited each home twice a year and supplied the curriculum materials if the parent uses the distance education program .

The economic benefits for the school district are apparent. They are not required to provide the physical plant for the students, nor the classroom teachers or resources. Housing is also not required.

As more parents choose to work from their homes, as school boards face tighter and tighter budgets, and as more rural Alberta schools close due to centralization of schools and services, will distance education in rural Alberta

become the standard?

3. the training of the distance education teacher

Strategies for teaching courses via distance education are not the same strategies employed by the classroom teacher. Training of distance education teachers will be a necessity if distance education programs are to flourish.

In the long view, (distance education) approaches may be the cutting edge of the transformation of schooling from the industrial model of the 19th century to a post-industrial model more appropriate for the 21st century

Haughey (1990)

Haughey's research involved interviews with three distance education teachers. There was a desire to treat the distance education students in a similar fashion to a traditional classroom student. However, the opportunity to develop relationships with the students, to see the students working, as opposed to looking at their work, to assist students with problems at the time the problems occur, are not available to these teachers. These teachers also felt isolated from social functions and traditional teacher events: awards night, staff parties, and extra-curricular activities. They spent much of their time marking and recording attendance of students. They did not view their isolation as negative or positive, it was merely a factor in their job.

4. the impact of instructional technology

As instructional technology improves, the student may in the future be receiving the bulk of instruction through computer-based instruction. What role will the teacher then play: the technician, the timekeeper?

Computer-based instruction lends itself to individualized learning, and as the technology becomes more readily available and user friendly, it permits a teacher to reduce time spent on administrative tasks. This extra time should be available for

interaction with students. The use of technology, both inside and outside the school system, is leaving its mark on the classroom teacher. Parents are becoming more knowledgeable concerning personal computers. They are demanding improved technology in the schools as students are reluctant to enroll in a computer studies classes where the equipment is older than what the student currently uses at home.

As the computer-based instructional courseware increases in quality and availability, more institutions will turn to computer-based instruction as an economical and flexible method of course delivery. Careful planning and development of objectives, motivational queues and diagnostic evaluation are the foundations of computer-based instruction--much thought goes into planning, when the author knows the planning is in a permanent format.

The impact of instructional technology will certainly enhance the desirability to use distance learning materials in the future.

Conclusion

The study of the distance education teacher in Alberta's rural schools has afforded the researcher an opportunity to visit a variety of Alberta's rural schools and contact teachers across Alberta, in person, by telephone, and through written and computer communication. These teachers dispelled the image presented in earlier studies of the distance education teacher as being downtrodden, overworked and burned out. The teachers this researcher came into contact with were highly professional, dedicated "career teachers" who truly wanted to the best they could for their students. This often involved teaching subjects that the distance education teachers felt less than adequately prepared, which is common in rural schools where teachers are often required to teach outside of their specialty. They performed these

tasks with utmost dedication and were very involved in their role as teachers. They recognized the changing nature of the distance education teacher, and offered positive suggestions and ideas for improvement. They appeared to want to become further involved in establishing guidelines for the area of distance education. The researcher thanks them for their energy and their input.

In conclusion, the role of the distance education teacher is difficult to describe and formalize. It is hoped that this research has assisted in the clarification of this role.

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Appendices

A. Institutions Contacted

Acadia School Division #8	Cypress School Division #4
Airdrie RCSSD #365	Drumheller Valley S.D. #62
Berry Creek School Division #1	East Smoky School Division #54
Brooks School District #2092	Fairview School Division #50
Cardston School Division #2	Foothills School Division #38
County of Athabasca #12	Fort Vermilion School Division #52
County of Barrhead #11	Grande Cache School Dist. #5258
County of Beaver #9	High Prairie School Division #48
County of Camrose #22	Lac La Biche School Division #51
County of Flagstaff	Lakeland School District #5460
County of Forty Mile #8	Mount Rundle School Division #64
County of Grande Prairie #1	Neutral Hills School Division #16
County of Lac Ste. Anne #28	Northland School Division #61
County of Lacombe #14	Peace River School Division #10
County of Lamont #3	Pincher Creek School Division #29
County of Leduc #2	Provost School Division #33
County of Lethbridge #1	Rangeland School Division #9
County of Minburn	Rocky Mountain School Division #15
County of Mountain View	Rocky View School Division #41
County of Newell #4	Spirit River School Division #47
County of Paintearth #18	Stearns School Division #30
County of Parkland #31	Stettler School District #1475
County of Strathcona #20	Stirling School District #647
County of Thorhild #7	Taber School Division #6
County of Two Hills #21	Three Hills School Division #60
County of Vulcan	Twin Rivers School Division #65
County of Warner #5	Wainwright School Division #32
County of Wetaskiwin #10	Westlock School Division #37
County of Wheatland #16	Whitecourt School District #2736
Crowsnest Pass School Division #63	Willow Creek School Division #28

B. Consent Letter

10435-16 Avenue

#«survey

#»

Edmonton, AB

T6J 5T1

<<date>>

«title» «first name» «last name»

«school»

«address 1»

«address 2»

«postal code»

Dear «first name»:

**Re: The Role of the Distance Education Teacher in Alberta
Rural Schools - A Questionnaire**

Permission has been granted by your superintendent to contact you. Please find enclosed a copy of a questionnaire for your completion. The questionnaire is designed to investigate and describe the role of the distance education teacher in Alberta's rural schools and to identify critical issues that may be associated with this role.

This questionnaire is to be completed by teachers who are involved with the delivery of distance education courses at the secondary school level. Please note that a separate questionnaire should be completed by each teacher.

The completion and returning of the enclosed questionnaire will indicate consent to participate. All information will be kept strictly confidential, and your identity will not be known to the researcher. The code numbers on the questionnaires are for identification so that follow-up letters may be sent to non-responders.

Please return the completed questionnaire by <date>, using the enclosed stamped, self-addressed envelope.

I thank you for your cooperation and participation in this study. Your comments or questions regarding any aspect of this questionnaire would be most welcome and may be included with your response or forwarded to me separately.

If you have any questions, I may be reached at 437-6358 (home) or 941-3924 (work).

I look forward to sharing the results of this survey with you when completed. If you are interested in the results of this questionnaire, kindly sign the bottom of this letter and return, along with the questionnaire.

Sincerely,

Shirley Douglas
Graduate Student
M.ED (Instructional Technology)
University of Alberta

encl.

Yes: I am interested in the results of this survey. Kindly forward me a summary of the results upon completion.

Name

C. The Questionnaire

The Role of the Distance Education Teacher in Alberta's Rural Schools

Thank you for taking the time to complete this questionnaire.

Please remember that all of your answers will be kept strictly confidential

Questionnaire Number: _____

I. Role, Responsibilities and Skills

1. What percentage of your total work assignment is designated as "distance education"?

less than 25%
26% - 50%
51% - 75%
76% - 100%

check(✓) one

1. ☐
2. ☐
3. ☐
4. ☐

2. Which of the following most closely describes your title?

distance education teacher
distance education coordinator
distance education tutor
teacher
other: please explain

check(✓) one

1. ☐
2. ☐
3. ☐
4. ☐
5. ☐

3. What extent of your work time in distance education is devoted to the following activities?

1 none or n/a	2 minimal	3 some	4 a lot	5 a great deal
---------------------	--------------	-----------	------------	-------------------

administration

[1] [2] [3] [4] [5]
1. ☐ ☐ ☐ ☐ ☐

course/curriculum development

2. ☐ ☐ ☐ ☐ ☐

marking

3. ☐ ☐ ☐ ☐ ☐

student contact (all types)

4. ☐ ☐ ☐ ☐ ☐

travelling

5. ☐ ☐ ☐ ☐ ☐

Thank you for your participation. Please continue to page 2.

4. What preparation/training, if any, did you receive for your role as a distance education teacher?

(✓)

information, help/assistance from other distance education teachers

1. ☐

11

a handbook for distance education teachers

2. ☐

12

meeting(s) with a distance education coordinator

3. ☐

13

formal training session(s)

4. ☐

14

other: please explain

5. ☐

15

5. How important do you feel the following skills are for a distance education teacher?

1	2	3	4	5
not important	minimally important	somewhat important	important	very important

[1] [2] [3] [4] [5]

being knowledgeable of the subject

1. ☐ ☐ ☐ ☐ ☐

16

having teaching experience

2. ☐ ☐ ☐ ☐ ☐

17

being an effective communicator of the course content

3. ☐ ☐ ☐ ☐ ☐

18

having knowledge of distance education technology

4. ☐ ☐ ☐ ☐ ☐

19

being understanding about student problems

5. ☐ ☐ ☐ ☐ ☐

20

understanding administrative procedures

6. ☐ ☐ ☐ ☐ ☐

21

6. Using the scale below, indicate the extent to which you would find further training or support useful in the follow areas?

1	2	3	4
not useful	somewhat useful	useful	very useful

[1] [2] [3] [4]

course/curriculum development

1. ☐ ☐ ☐ ☐

22

student evaluation

2. ☐ ☐ ☐ ☐

23

student counselling and advising at a distance

3. ☐ ☐ ☐ ☐

24

interpersonal communication skills

4. ☐ ☐ ☐ ☐

25

using telecommunication technologies

5. ☐ ☐ ☐ ☐

26

7. Is your school district part of a distance education consortium?

check(✓) one

yes

1. ☐

27

no

2. ☐

Thank you for your participation. Please continue to page 3.

II. Course Information

A. Curricular Materials

1. Please check the courses you are presently teaching via distance education:

	(✓)	
Mathematics	1. <input checked="" type="checkbox"/>	28
English	2. <input type="checkbox"/>	29
Science	3. <input type="checkbox"/>	30
Social Studies	4. <input type="checkbox"/>	31
Physics	5. <input type="checkbox"/>	32
Biology	6. <input type="checkbox"/>	33
Chemistry	7. <input type="checkbox"/>	34
Computer Studies	8. <input type="checkbox"/>	35
Accounting	9. <input type="checkbox"/>	36
Law	10. <input type="checkbox"/>	37
Psychology	11. <input type="checkbox"/>	38
Other(s): please list	12. <input type="checkbox"/>	39

2. Curricular materials for the majority of courses that you teach are:

	check(✓) one	
provided by the Alberta Distance Learning Centre	1. <input type="checkbox"/>	
provided to me by the school or district	2. <input type="checkbox"/>	40
prepared by myself	3. <input type="checkbox"/>	
other: please explain	4. <input type="checkbox"/>	

3. The majority of the curricular materials are provided to the student:

	check(✓) one	
in one package at the beginning of the course	1. <input type="checkbox"/>	
in parts, as the student completes each unit or section	2. <input type="checkbox"/>	41
other: please explain	3. <input type="checkbox"/>	

Thank you for your participation. Please continue to page 4.

4. Are the following curricular materials available for your use in distance education instruction?

	(✓)	
print material	1. <input type="checkbox"/>	42
audio cassettes	2. <input type="checkbox"/>	43
video cassettes	3. <input type="checkbox"/>	44
video disk	4. <input type="checkbox"/>	45
computer-assisted instruction	5. <input type="checkbox"/>	46
other: please explain	6. <input type="checkbox"/>	47

5. Using the scale below, indicate the frequency of your use of the following curricular materials.

1	2	3	4	5
never	rarely	sometimes	often	very often

	[1] [2] [3] [4] [5]	
print material	1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	48
audio cassettes	2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	49
video cassettes	3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	50
video disk	4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	51
computer-assisted instruction	5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	52
other: please explain	6. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	53

B. Communication Technologies

1. Are the following communication technologies available to you for your use in distance education instruction?

	(✓)	
audio teleconferencing	1. <input type="checkbox"/>	54
video teleconferencing	2. <input type="checkbox"/>	55
telephone	3. <input type="checkbox"/>	56
electronic mail/bulletin boards	4. <input type="checkbox"/>	57
fax machine	5. <input type="checkbox"/>	58

Thank you for your participation. Please continue to page 5.

2. Using the scale below, indicate the frequency of your use of the following communication technologies.

1	2	3	4	5
never	rarely	sometimes	often	very often

	[1]	[2]	[3]	[4]	[5]	
audio teleconferencing	1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>60</u>
video teleconferencing	2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>61</u>
telephone	3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>61</u>
electronic mail/bulletin boards	4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>62</u>
fax machine	5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>63</u>
other: please explain _____	6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>64</u>

III. Interaction with Students

1. Which of the following statements best describes the first contact you have with your students?

	check(✓) one	
the administration organizes a face-to-face meeting	1. <input type="checkbox"/>	
the administration asks that I contact each student	2. <input type="checkbox"/>	
on my own initiative I contact each student	3. <input type="checkbox"/>	<u>65</u>
other: please explain _____ _____	4. <input type="checkbox"/>	

2. Using the scale provided, indicate what influence you think your distance education teaching has on your students' ability to:

1	2	3	4	5
none		neutral		a great deal

	[1]	[2]	[3]	[4]	[5]	
acquire independent study skills	1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>66</u>
understand course content	2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>67</u>
apply new knowledge to practical situations	3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>68</u>
prepare for exams	4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>69</u>
develop a positive attitude toward the course	5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>70</u>

Thank you for your participation. Please continue to page 6.

3. How frequently do you use the following methods to contact your students?

1	2	3	4	5
never	rarely	sometimes	often	very often

	[1] [2] [3] [4] [5]	
face-to-face meetings	1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	71
telephone	2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	72
fax	3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	73
electronic mail and/or electronic bulletin board	4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	74
other: please explain _____	5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	75

4. How frequently do your students use the following methods to contact you?

1	2	3	4	5
never	rarely	sometimes	often	very often

	[1] [2] [3] [4] [5]	
face-to-face meetings	1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	76
telephone	2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	77
fax	3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	78
electronic mail and/or electronic bulletin board	4. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	79
other: please explain _____	5. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	80

5. How often would you be in contact with an individual student (average frequency of contact)?

	check(✓) one	
daily	1. <input type="checkbox"/>	
twice a week	2. <input type="checkbox"/>	
once a week	3. <input type="checkbox"/>	81
once every two weeks	4. <input type="checkbox"/>	
once a month	5. <input type="checkbox"/>	

6. How do you feel, in general, about the quality of the contact you have with your distance students?

	check(✓) one	
very dissatisfied	1. <input type="checkbox"/>	
somewhat dissatisfied	2. <input type="checkbox"/>	
neutral	3. <input type="checkbox"/>	82
somewhat satisfied	4. <input type="checkbox"/>	
very satisfied	5. <input type="checkbox"/>	

Thank you for your participation. Please continue to page 7.

7. What kind of feedback do you most regularly give students on their assignments?

a grade or mark only

a grade with written comments

other: please explain

check(✓) one

1. ☐

2. ☐

3. ☐

83

8. What is your average turnaround time for assignments and marking?

same day

next day

next week

end of month

other: please explain

check(✓) one

1. ☐

2. ☐

3. ☐

4. ☐

5. ☐

84

9. How do you generally return your students' work?

face-to-face

mail

fax

courier

other: please explain

check(✓) one

1. ☐

2. ☐

3. ☐

4. ☐

5. ☐

85

IV. Participant Data

1. Gender

Male

Female

check(✓) one

1. ☐

2. ☐

86

2. Age (in years)

30 or less

31-35

36-40

41-45

46-50

51-55

56-60

61+

check(✓) one

1. ☐

2. ☐

3. ☐

4. ☐

5. ☐

6. ☐

7. ☐

8. ☐

87

3. Number of years of teaching experience:

_____ yrs.

88 - 89

Thank you for your participation. Please continue to page 8.

4. **Employment status in the school division:**

check(✓) one

permanent full time

1. ☐

permanent part-time

2. ☐

contract (part or full)

3. ☐

temporary (part or full)

4. ☐

other: please explain

5. ☐

91

5. **Where do you do most of your work related to distance education?**

check(✓) one

home

1. ☐

on-site with students

2. ☐

school division offices

3. ☐

91

other: please explain

4. ☐

6. **How did you become a distance education teacher?**

check(✓) one

applied for an advertised position

1. ☐

was offered the position

2. ☐

was assigned as a distance education teacher

3. ☐

92

other: please explain

4. ☐

7. **To the nearest year, how many years have you been involved with distance education (full or part-time)?**

check(✓) one

less than 2 years

1. ☐

2-3 years

2. ☐

4-6 years

3. ☐

7 years or more

4. ☐

93

Thank you for your participation. Please continue to page 9.

V. General Comments

1. What additional resources, concessions, accommodations, or allowances (if any) are made available to support you in your role in distance education?

travel mileage	(✓) 1. <input type="checkbox"/>	101
a computer	2. <input type="checkbox"/>	102
freedom from extra-curricular activities	3. <input type="checkbox"/>	103
freedom from supervision	4. <input type="checkbox"/>	104
more flexible schedule	5. <input type="checkbox"/>	105
fewer regular classes	6. <input type="checkbox"/>	106
other: please explain	7. <input type="checkbox"/>	107

2. Indicate the extent to which you agree or disagree with the following statements regarding distance learning. Circle the number on the scale from 1 to 5 that best approximates your answer.

1	2	3	4	5
strongly agree	agree	neutral	disagree	strongly disagree

When it comes to helping students learn, distance education teaching is very similar to teaching in the traditional classroom.	[1] [2] [3] [4] [5] 1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	101
My work as a distance education teacher has helped me improve my general teaching skills.	2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	102
I find distance education teaching to be a frustrating experience.	3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	103

3. What do you enjoy most about being a distance education teacher?

4. What do you enjoy least about being a distance education teacher?

Thank you for your participation. Please continue to page 10.

5. Do you feel there are any emerging issues in the area of distance education? If so, feel free to note them below.

[illegible]

This completes the questionnaire. Thank you again for your participation.