FACULTY SUPPORT FOR DISTANCE EDUCATION
IN A CONVENTIONAL UNIVERSITY

by

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF EDUCATION

in

THE FACULTY OF GRADUATE STUDIES

DEPARTMENT OF ADMINISTRATIVE, ADULT AND HIGHER EDUCATION

We accept this dissertation as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

March, 1992

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The University of British Columbia
Vancouver, Canada

Date _March 31, 1992_

ABSTRACT

This study addressed the controversy among academics in conventional universities over the credibility of distance education for degree credit. Faculty scepticism has slowed the development and expansion of distance education despite increased demands for it. Distance education is an educational method in which the teacher and learners are separated in time and space for the majority, if not all, of the teaching-learning process; two-way communication occurs primarily via print, postal service, and telecommunications (Keegan, 1990). There is little empirical evidence about the reasons for the antagonism between the supporters and opponents of distance education. The purpose of this research was to explain why some faculty support distance education while others do not. Support was defined as how faculty would speak about and vote for proposals to offer distance education courses for degree credit. The conceptual framework drew on studies of faculty attitudes towards university expansion and distance education, and literature on academic culture and change.

An interpretive perspective and qualitative methods dominated the two-phase study. First, a mailed survey (n=487) investigated the extent of faculty familiarity with and support for distance education. Then faculty (n=50) were interviewed from three categories of support for distance education identified by the survey: supportive, divided support, and opposed. The interviews explored how faculty understood the compatibility and feasibility of distance education. Compatibility was defined as the congruence of distance education with faculty beliefs and values about the accessibility and quality of university education. Feasibility was the perceived ability to successfully implement distance education.

In general, faculty were not very familiar with or supportive of distance education, except for undergraduate courses. There was very little support for a graduate program by distance education. There were significant differences in faculty support by discipline and gender.

The reasons for variations in faculty support for distance education are best explained by the concept of compatibility. Faculty supported distance education if it was congruent with their beliefs and values about university education in general. Faculty thought about distance education as promoting social justice, as an educational method, or as the distribution of information. Faculty who were supportive held the beliefs and values Trow (1973) associated with mass education while those who were opposed tended to believe in an elite approach to university education. There was a substantial divided group who were in a conflict about the priority that should be given to the major values involved, the accessibility and quality of university education.

The study contributes to the development of theory about different conceptions of university and distance education and provides insight into the study of disciplinary cultures. It presents a revised conceptual framework for further research on the topic. The results have implications for educational planning and for the development of distance education.

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Acknowledgements

This dissertation was a joint effort with my husband, Richard R. Black, who spent countless hours working with and waiting patiently for me. I thank Richard for helping me keep the importance of my research in the wider perspective of invaluable human caring and of the symbolic and spiritual aspects of life.

I thank the members of my research committee for their unwavering belief in my ability to successfully complete the dissertation and for their suggestions for improvement: Dr. John Dennison (Program Advisor and Research Committee Chair), Dr. Tom Sork (Research Supervisor), and Dr. Marilyn Willman.

I also thank the following people for their assistance with the study: Dr. David Bateson for his help with questionnaire design and statistical analysis; Dr. John Chase for arranging sample selection from the computer data base of faculty at UBC; Ian Franks and Mark Bullen for their suggestions and for providing resources to conduct the mailed survey; the UBC faculty who participated in my research.

I gratefully acknowledge Dalhousie University, The University of British Columbia, and The Social Sciences and Humanities Research Council of Canada for financial assistance during my doctoral program.

I dedicate this achievement to Richard, for his love and devotion.

CHAPTER 1

INTRODUCTION TO THE STUDY

This chapter introduces a study of faculty support for distance education conducted at the University of British Columbia in Canada. Support was defined as how faculty would likely speak about and vote for distance education courses for degree credit. An overview of the problem and purpose of the study precedes a broader discussion of the background to the problem. Next, the controversy among academics about the credibility of distance education is reviewed. The scope and significance of the study are then presented and the chapter ends with an overview of the dissertation.

Overview of the Problem and Purpose of the Study

In distance education as defined for this study, the teacher and learners are separated in time and space for the majority, if not all, of the teaching-learning process; communication occurs primarily via print and mechanical means, as distinct from classroom, oral, and group-based, face-to-face instruction in conventional universities (Keegan, 1990). This definition excludes classes that are given by faculty travelling off-campus to replicate on-campus instruction with a group of students in another location.

The importance of distance education may be viewed within the social and historical context of the egalitarian movement from an elite to a mass system of higher education. The growth of university distance education world wide has paralleled this change. Societal demands for increased access to higher education continue. The demands are based on utilitarian needs in a rapidly changing society as well as on democratic ideals and on a philosophy of lifelong learning. University distance education is one response to these demands, especially those for more flexible learning opportunities for adults who wish to study part-time while fulfilling work and family responsibilities. The Commission of Inquiry on Canadian University

Education concluded that "distance education efforts are excellent and need to be expanded" (Smith, 1991, p. 86). However, a long standing controversy among academics about the credibility of distance education creates implementation problems for planners and difficulties for students in obtaining full recognition for distance courses they have completed. Students complain "about the problem of credit transfer and about the relative lack of graduate-level courses" in distance education (Smith, 1991, p. 85).

The controversy about distance education amongst academics also portrays faculty as conservative resistors of change. The reports of antagonism between academics who support and oppose distance education are mainly anecdotal. The arguments on both sides are seldom based on scientific inquiry, but rely instead on questionable assumptions and misconceptions (Calvert, 1986).

> On one hand the traditionalists often view distance education as the ultimate erosion of academic standards, whereas on the other hand distance education advocates see opposition to their cause as obstructionism and academic protectionism. (Kirby, 1988, p. 115)

Although distance educators frequently comment on their struggles with the scepticism of university faculty about distance education, there is little systematic exploration of the issue; an issue that is difficult to face constructively but one that will not go away (Kirby, 1988).

The purpose of this study was to explain why some university faculty support distance education while others do not. This was investigated by a two phase study. First, a survey was conducted to determine the extent of faculty familiarity with and support for distance education courses for degree credit in relation to selected professional characteristics. The survey results were used to categorize respondents into three groups according to the extent of their support for distance education: supportive, divided, and opposed. The second phase of

the study used faculty interviews to explore how faculty in each of these groups understood the compatibility of distance education with their beliefs and values about the accessibility and quality of university education and its feasibility in terms of the practicalities of implementation.

Background to the Problem

The spectacular growth of university distance education since the 1970s marks distance education as a phenomenon of increasing importance to educators, citizens, and governments. Societal changes and the egalitarian ideals that provided the rationale for this expansion continue to promote interest in, to foster debate about, and to create demand for this form of educational delivery.

The Growth of Distance Education

Distance education had modest beginnings in the late 1800s in the form of correspondence courses for children and adults who were unable to avail themselves of school or university instruction. Advances in interactive communications technology, such as television, telephone and now computers, and their use in distance education, contributed to new developments. The establishment of the British Open University in 1969 marked the beginning of radical innovation in distance higher education in more than 20 different countries around the world (Holmberg, 1986; Keegan, 1986; Shale, 1987; Shale & Garrison, 1990).

> This vast institution (the Open University), with over 100,000 students,
> captured the minds of politicians and educational administrators internationally in
> the 1970s. Indeed, a diverse range of institutions styled as open universities
> began to pop up all over the world; at the very least governments were expected
> to hold an enquiry into establishing one. (Evans & Nation, 1989, p. 6)

The rapid increase in university distance education was not confined to the establishment of new institutions; the growth of distance education offerings by existing, conventional universities was also extraordinary (Holmberg, 1986; Keegan, 1986, 1990; Shale & Garrison, 1990; Smith, Daniel & Snowden, 1984; Sweet, 1986). Typologies of distance education divide structural models for delivery into autonomous and mixed institutions (Keegan, 1990). Autonomous institutions are concerned solely with distance education and are usually established with that mandate only. Mixed institutions provide both conventional and distance education. In Canada both of these models exist as "Canada's distance education history is saturated with an outgrowth of departments, organizations and agencies." that constitute a national "pot-pourri" (Rothe, 1986, p. 22). The Canadian provinces have constitutional jurisdiction over education, therefore, distance education has been implemented according to provincial requirements and resources (Ellis, 1986).

Autonomous distance teaching institutions were established in three Canadian provinces during the 1970s: Athabasca University in 1970, Teleuniversitie de Quebec in 1972, and The Open Learning Institute of B.C. in 1978 (Daniel & Smith, 1979; Mugridge, 1986). At the same time, considerable development of distance education took place in the college system (Dennison, 1986) and within conventional universities (Rothe, 1986; Sweet, 1986). All experienced increasing student enrollment. The scope of courses available ranged from technical, vocational, and adult basic education to undergraduate and graduate degree courses (Dennison, 1986; Kirby, 1988; Mugridge, 1986; Sweet, 1986). A 1988 survey of 137 Canadian community colleges found that 44.6% offered distance learning courses with approximately 2,300 different courses offered across Canada to a conservatively estimated 50 thousand students annually (Association of Canadian Community Colleges, 1988).

Another indicator of the growth in distance education was the formation of telecommunications networks by provincial governments in Canada to support distance

education. These networks were designed to provide delivery technologies for educational institutions. The Ontario Educational Communications Authority, formed in 1970, was the first. Other examples are the Alberta Educational Communication Corporation, formed in 1973, and the Knowledge Network of the West in B.C. started in 1980. As a result of a Canadian survey, Stahmer (1987) described 57 major projects and 38 other educational activities that used telecommunications technology for distance education.

The research reported here concerns distance education within a conventional university. Although Queen's University, in 1889, and The University of British Columbia, in 1949, started the first distance education courses (by correspondence) in conventional Canadian universities, many other universities now play a leading role (Smith, 1991; Smith, Daniel & Snowden, 1984; Sweet, 1986). Memorial University of Newfoundland and Waterloo University in Ontario are examples. Memorial University is considered the pioneer in the development of teleconferencing with over 50 sites across the province, often located in outpost hospitals. Waterloo is noted for its science and mathematics courses and its wide range of course offerings, especially at higher course levels (Pike, 1978). Stahmer (1987) lists 23 conventional universities that offer undergraduate courses via distance education. Additionally, Kirby's (1988) survey indicated that at least eleven conventional Canadian universities now offer graduate courses at a distance.

Changing Societal Demands for Higher Education

Distance education is one manifestation of the overall expansion, democratization, and diversification of higher education in many countries since the second world war, referred to by Trow (1973) as the transition from an elite to a mass system. Different authors cite numerous, but similar, reasons for the continuing societal demands for higher education, especially for adult, part-time study. Some authors have drawn up lists of reasons (for example, Peterson,1979; Verduin, Miller, & Greer, 1986); others use categories such as,

demographic change, changes in technology and social change (Cross, 1981; Sweet, 1986).
The issues of accessibility and lifelong learning are prominent in reviews of post-secondary
education in Canada that include an important future role for distance education (for example,
Province of British Columbia, 1988; Province of Nova Scotia, 1988; Smith, 1991; University of
Saskatchewan, 1989).

In Canada the "principle of the right of access of anyone who is qualified and who has the
desire to attend college or university" is seldom questioned (Report of the Standing Senate
Committee on National Finance, 1987, p. 35). The concept of accessibility falls under the
broader notion of equality of educational opportunity (Anisef, Okirhiro and James,1982).
Equal educational opportunity means that every person should have an opportunity for
education commensurate with her or his abilities, and that environmental and social class
factors, over which a person has little control, should not be allowed to create barriers to
intellectual development desired by the individual (Pike, 1988). This is of concern because
educational credentials are an avenue to employment, an instrument of social mobility, and
the overall best predictor of life chances (Guppy, 1988).

In response to demands for increased accessibility, post-secondary institutions in Canada
grew tremendously with full-time enrollment in higher education increasing 4.6 times since
the early 1960s (Fortin, 1987). Part-time enrollment trends are more important in relation to
distance education which enrols mainly part-time, older students (Holmberg, 1986; Ross &
Powell, 1990; Sweet, 1986). Stager (1984, p. 24) calls distance education students a special
subgroup of part-time students. Part-time university registrations almost doubled between
1970 and 1987. Furthermore, women, especially those over 30, dominate in the part-time
group (Department of the Secretary of State Canada, 1989). Overall, women and middle to
upper class Canadians have increased their participation in higher education the most.
Accessibility concerns now focus on inequities of a qualitative or distributional, rather than a
quantitative nature (Fortin, 1987), and efforts to increase accessibility are aimed at

underrepresented and disadvantaged groups such as native peoples, the handicapped, and rural dwellers, and at providing services for mature adults.

Originally, distance education was aimed at geographically remote learners; now the majority of distance students enrol in courses because other kinds of constraints are overcome, especially those due to work, family, and time schedules (Sweet, 1986). Hence, distance education provides more accessibility for adult, part-time, employed persons or householders, regardless of location. Given the considerable increase in enrollment from this group, distance education plays an important role in providing educational alternatives and choices for mature adults, especially women (Faith, 1988; Morrison, 1984; Sweet, 1986).

In Canada, as in many other countries, the majority of distance education students are women. For example, 61.9% of the students in the Open University and Open College of British Columbia in 1987-88 were female (Open Learning Agency, 1988). The percentage of women students enroled at Athabasca University has steadily increased to 66% in 1988-89 (Ross & Powell, 1990). Statistics from conventional universities are more difficult to locate and there is no overall picture of what happens across Canada. However, distance education is a major means of addressing the need for continuing education in predominantly female professions, such as teaching, nursing, and social work (Sturrock, 1988). Furthermore, some of the strongest pressures for graduate programs via distance education come from female-dominated professions like nursing and education (Carver & MacKay, 1986; Kirby, 1988).

The ideals of accessibility and educational quality are often seen as conflicting (Clark, 1983; Fortin, 1987; Johnson, 1978) and many believe that "more means worse" (Trow, 1973). Some argue that it is elitist to claim that increased accessibility reduces quality (Fortin, 1987). This elite position assumes that small is better and that admission standards effectively screen for ability and ambition. The concerns about quality are primarily about student quality and the type of education, liberal or specialized. The main dilemma is how to balance liberal arts and

humanities courses with specialized, professional programs. Value conflicts about what constitutes a true university education often lie at the root of doubts about the academic quality of distance education. According to Hansen (1984, p. 33), this judgement is often made "on implicit value laden ideas rather than explicit evidence." The value and necessity of face-to-face interaction in university education is one of the major controversies.

Controversy about the Credibility of Distance Education

Despite the growth and relative success of university distance education since the 1970s, its credibility remains a source of controversy within academic circles around the world (Perry,1984). Distance education is often viewed as second-best to classroom, face-to-face instruction. When the development of open universities began, the public, potential students, and politicians all raised questions about the quality of distance education; however, the controversy now lies largely with academics who are described as sceptical and hostile towards distance education. Perry (1984, p. 14) comments that "there still is a strong feeling that on-campus teaching in the face-to-face situation is the one way of actually teaching." This position appears even more prevalent regarding moves to deliver graduate university courses at a distance as "there is a strongly held belief, certainly on the part of some Canadian academics, that there are intrinsic qualities about graduate education that militate against its delivery at a distance" (Kirby, 1988, p. 115).

The "enigma of academic acceptance" was evident well before the expansion of distance and higher education (MacKenzie and Christenson,1971). One of the best examples of the controversy was provided by two articles that debated the "stepchild" image of distance education (Allen, 1960; Stein, 1961). Allen charged that the stepchild treatment of distance education was due to ignorance, narrow-mindedness, and snobbery on the part of academics who believed that on-campus study was the only real way to learn. Although Stein (1961) acknowledged "much truth in Allen's excellent analysis," he blamed distance educators for

part of the difficulty. Stein (1961) claimed that distance educators must be more active professionally, conduct more research, and insist on high standards to overcome prejudice and misinformation.

Wedemeyer (1981) used the notion of "backdoor learning" to depict what he considered the discrimination against distance education and other forms of non-traditional university study: "People of quality use the front door; lesser folk carry out their tasks at the back door.(p. xxii)" Wedemeyer had been involved in distance education since the 1930s and believed that academic scepticism was due to elitism and unscientific reasoning. Furthermore, he observed that this opposition resulted in restrictive rules and regulations for distance education courses that tended to prohibit credit or other recognition for them. It has also been the author's experience that students suffer from the controversy and may have to argue for full university recognition for university courses taken via distance education. Distance students have complained about problems with transfer credit in Canada (Smith, 1991). In a survey of Canadian universities and colleges, Kirby (1988) found that several universities would not give comparable recognition to a graduate degree completed solely by distance education and would restrict the number of distance courses permitted in a graduate program.

Scope of the Study

The scope of the study was restricted to faculty perceptions of distance education courses for degree credit and to full-time teaching faculty in one conventional Canadian university, The University of British Columbia. Chapter 4 describes the research site and gives the reasons for its' selection. Controversy about the credibility of distance education usually concerns courses for degree credit and faculty within conventional universities. The choice of looking at faculty perspectives instead of administrative ones was based on the belief that faculty retain considerable autonomy over university teaching and academic regulations. This is a

prominent feature of the academic profession noted by Clark (1983, p. 91), "Downgrading all external controls, the culture of the profession everywhere emphasizes personal autonomy and collegial self-government."

How faculty view distance education has a great influence on future developments in the field because faculty make academic decisions regarding program approval, resource allocation, and regulations governing the recognition of distance education courses for credit towards a degree. One of the distinctive features of universities as organizations is that academic decisions rest with the faculty and are made within faculty committees at the departmental, faculty, and senate levels of university governance (Becher & Kogan, 1980).

The university senate of faculty has ultimate authority over all academic decisions. In senate, faculty from all disciplinary groupings within the university become involved in decisions about any academic program. Hence, faculty who may have little knowledge about a proposal are called upon to make decisions about it. Proposals for new teaching endeavours usually have many hurdles to overcome because "The faculty's legislative bodies are still pre-eminently powerful in the teaching field, with all its attendant issues of degree requirements and curriculum" (Baldridge, 1971, p. 134). In their classic study of academics in Britain, Halsey and Trow (1971, p. 26) claimed that "the university teachers themselves are the managers of expansion." Consideration of organizational factors in this study was limited to those which faculty understood as having an influence on their support for distance education. Likewise, the possible importance of leadership and commitment from university administrators was considered in terms of how faculty understood the impact of these factors.

Significance

The results of the study have theoretical and practical significance, and also provide some groundwork and directions for future research in distance education, a field of study with a

weak empirical foundation. A conceptual approach is used to explain the reasons for the controversy over the credibility of distance education by using broader notions about university expansion. There is little theoretical development in distance education and the definition of distance education is widely debated. This study provides empirical evidence of how faculty think about distance education and clarifies different values and assumptions about distance education implied in the literature.

The research suggests a systematic and conceptual approach to the further study of academics' reactions to distance education and their views of university education in general. It grapples with the problem of how to organize for meaningful analysis the numerous and diverse departments in a university and makes recommendations in this regard for research in higher education.

The knowledge about faculty perspectives on distance education provided by this study has practical importance for educational planning in general and for distance education specifically. There are several reasons for its importance. First, faculty determine the recognition distance education courses receive by monitoring and setting academic standards and by establishing academic regulations. Secondly, faculty cooperation and participation are necessary for the approval and implementation of distance education programs. Third, faculty perspectives about distance education suggest directions for faculty orientation and faculty development activities. Fourth, faculty perceptions about institutional constraints on their support for distance education point to policy changes that are needed, as opposed to problems with distance education itself.

Summary and Overview of the Dissertation

University distance education has grown, along with the expansion, democratization, and diversification of higher education, and the demand for this method of educational delivery is

likely to continue. However, the long standing controversy about the credibility of distance education continues to create antagonism between faculty who support distance education and those who do not. Students often suffer the most from this controversy as a result of restrictive rules and regulations about distance education, lack of full recognition for distance courses, and limited development of distance education programs in conventional universities. The purpose of this study was to explain why some faculty support distance education while others do not. This chapter also reviewed the background to the problem and discussed the scope and significance of the study.

The next chapter reviews the literature relevant to the research problem. This includes studies of faculty attitudes towards distance education, and literature on the goals of universities as organizations, on the culture of the academic profession, and on resistance to change in higher education. Chapter 3 draws on this literature to formulate the conceptual framework that guided and focused the research. Chapter 3 also specifies the research objectives and questions. Chapter 4 discusses the research design and procedures. Chapter 5 gives the results of the faculty mailed survey. The descriptive results of the interview phase of the research are given in Chapters 6 and 7, while Chapter 8 provides the comparative analysis. Chapter 9 provides a summary of the study and a discussion of its implications for theory, for research, and for educational planning in general as well as specifically for university distance education.

CHAPTER 2

REVIEW OF LITERATURE RELATED TO THE PROBLEM

This chapter reviews the literature relevant to the research problem. Definitional issues regarding distance education are discussed first. Then studies on faculty attitudes towards distance education are presented, along with related innovation studies. This literature reveals the importance of the topics addressed subsequently on universities and academic culture, and on resistance to change.

Definitional Issues

A widely accepted and widely applicable definition of distance education is "much sought after, but ever elusive" (Garrison & Shale, 1987). Many different terms refer to distance education, including correspondence study, independent study, home study, and external studies (Keegan, 1990). The term distance education is now more widespread because, in 1982, the International Council of Correspondence Instruction changed its name to the International Council for Distance Education, thereby giving the term international sanction. Distance education is a broader term and subsumes the others.

Correspondence study, the first form of distance education based primarily on print with communication by mail, is still the term people recognize most readily. Both print and mail service remain prominent features of distance education and Willen (1981) calls distance education a development of correspondence education. The main form of this development has been supplementing print to bridge the distance between teacher and learners. However, the use of varied communications technology and the growth of different institutional forms for providing distance education have blurred the distinctions between distance and conventional education and have added to the confusion about definitions (Garrison & Shale, 1987).

Most definitions of distance education are descriptive ones that portray the practice of distance education and how it differs from more widely known forms of conventional, face-to-face education. The debate about defining distance education fails to examine the different assumptions and perceptions underlying each definition and to reveal the norms and conceptions of distance education that are implied in the definitions (Soltis, 1978). There are some attempts to define distance education in terms of the concepts involved, most notably communication, distance, independence, and control (Garrison, 1989; Garrison & Baynton, 1987; Garrison & Shale, 1990; Holmberg, 1986; Moore, 1973; Shale, 1990; Wedemeyer, 1981).

There is wide agreement that separation of the teacher and learner in time and space with two-way communication achieved via print and mechanical means are distinctive features of distance education (Keegan, 1990; Rumble, 1989). Conventional education has been described as classroom and group-based, face-to-face, oral instruction in an effort to differentiate it from distance education. However, the separation of teacher from the learners, and of learners from other learners may not be complete, especially with the use of interactive technologies (such as audioteleconferencing) and with some reliance on face-to-face or residential sessions. Regardless, the amount of face-to-face interaction in distance education is reduced in comparison to conventional education and the purpose is usually different (Rumble, 1989).

The most frequently cited and debated definition of distance education is that of Keegan (1990, p. 44 revised from Keegan, 1980) which calls distance education an educational method with the following characteristics :

1. the quasi-permanent separation of teacher and learner throughout the length of the learning process distinguishes it from conventional face-to-face education;

2. the influence of an educational organization both in the planning and preparation of learning

materials and in the provision of student support services distinguishes it from private study;

3. the use of technical media (print, audio, video, or computer) to unite teacher and learner and to carry the content of the course;

4. the provision of two-way communication so that the student may benefit from or initiate dialogue distinguishes it from other uses of technology in education;

5. the quasi-permanent absence of the learning group throughout the length of the learning process, so that people are usually taught as individuals and not in groups, with the possibility of occasional meetings for both didactic and socialization purposes.

The most vigorous criticism of Keegan's earlier definitions (1980, 1986) came from Garrison and Shale (1987) who argued that it was too narrow to accommodate new developments particularly in the use of interactive technologies that unite the teachers and the learners as a group. They believe the broad distinguishing feature of distance education is that it is " a means of extending access to education to those who might otherwise be excluded from an educational experience" (Garrison & Shale, 1987, p. 11). This approach goes beyond the descriptive definition to normative statements about what distance education should do. Garrison and Shale also advocate a set of minimum criteria or conditions to provide guide-lines for what constitutes distance education because "Phenomena do not have to be totally congruent with the criteria to be classified as falling within the concept." (Garrison and Shale, 1987, p. 10). They argue that the distance education process is best characterized by three essential criteria: 1. the majority of teacher-student communication is noncontiguous; 2. two-way communication is necessary to facilitate and support the educational process; 3. distance education uses technology to mediate the necessary two-way communication.

While the essential criteria of Garrison and Shale (1987) provide broad boundaries for including what is meant by distance education in any context, the characteristics of distance education provided by Keegan (1990) are more useful for this study. It is anticipated that many faculty will be unsure about what distance education involves. In the blunt words of

Perry and Rumble (1987, p. iii), "there is widespread ignorance of what distance education really is;" furthermore, the provision of university distance education in Canada varies so much that indeed "... in my backyard distance education is what I say it is" (Mugridge, 1989, p.85). This study defines distance education as an educational method in which the teacher and learners are separated in time and space for the majority, if not all, of the teaching-learning process; communication occurs primarily via print and mechanical means, as distinct from classroom, oral, and group-based, face-to-face instruction in conventional universities (Keegan, 1990). This excludes courses given by faculty who travel off-campus to replicate on-campus instruction in other locations.

Faculty Attitudes towards Distance Education

The majority of comments in the literature about faculty support for or opposition to distance education are anecdotal and not based on empirical studies. Distance education research in general is in an early state of development (Calvert, 1986; Coldeway, 1982) and the existing research does not focus on faculty. Studies on distance education became more frequent only in the 1970s at the time of its expansion in higher education. Willen (1981, p. 37) noted that research in distance education was unusual in the early 1970s and that there was little written about distance education at the university level before 1975. The literature based on empirical findings is given the most emphasis here, although some references to descriptive works that highlight the main issues are incorporated. The scope of the proposed research provided further criteria for selection of the studies reviewed, that is, literature about distance education courses for degree credit and the views of faculty within conventional universities.

With only a few exceptions, the research found was conducted outside Canada. Hence, the applicability of findings to Canada is limited because of different approaches to higher education in other countries; however, the studies reveal important issues to consider and show some similarity of explanations for faculty attitudes towards distance education.

However, a fragmented picture remains with equivocal evidence that faculty are negative towards distance education and resistant to change.

Studies of Distance Education in Relation to Expanding Access

Two Australian studies included items on distance education in surveys of faculty attitudes toward a wider range of access and equity issues. Adamson (1976) referred to British studies of faculty attitudes towards university expansion there which concluded that faculty were concerned about maintaining the elite status of universities and were resistant to change (Ballis Lal, 1972; Halsey & Trow, 1971). Adamson (1976) conducted a mail survey of 285 biologists in fourteen Australian universities during 1973-74 after a period of rapid change from a selective to a mass system of higher education. She found that faculty were conservative about expansion of the university system. Many were worried about educational quality which 44% felt had declined; however, Adamson concluded that the faculty were more concerned about the ability of the department and the university to cope with expansion.

Adamson (1976) looked specifically at the issue of removing barriers to access for part-time adult students and at faculty attitudes towards external studies, the common term for distance education in Australia. Faculty were not very supportive of either notion. Almost half (46%) opposed modifying entrance requirements for adults. More than half (58%) agreed with the statement that distance education is an inferior form of study and 25% felt that distance education was not a proper function of a university. Most thought that a laboratory science course could only be taught on-campus and that the experience of university life on a campus was necessary for a proper university education. Furthermore, the faculty who favored expansion of the system were not necessarily those who supported distance education. Instead, those in favour of expansion envisioned an extension of the current system rather than changes along the lines of more open entry and distance education. Those who were in favour of distance teaching tended to also agree with more flexible entrance

requirements for adults. Thus, Adamson (1976, p. 448) concluded that attitudes about diversification as well as expansion of the higher education system reflected "...basic conceptions about the nature and function of the university" and about who should be admitted .

The second Australian study, conducted in 1978 but not published until later (Anwyl & Bowden, 1986), used parts of Adamson's (1976) questionnaire for a survey of university and college academics on access and equity issues. They found that academic attitudes towards distance education were similar to those reported by Adamson: some tolerance but not enthusiasm. Only 34% of university faculty opposed the statement that distance education is an inferior form of study. Anwyl and Bowden (1986, p. 127) concluded that systematic analysis of "...the source and basis of doubt and resistance " amongst academics about distance education is needed. The authors claimed that academic attitudes remained about the same in 1986 as at the time of the survey and they stated that "...academic men and women today are most likely to remain cautious about expansion and conservative about change" (Anwyl & Bowden, 1986, p. 127).

According to these studies the explanations for lack of strong support from faculty were resistance to change, varied conceptions of the university regarding desirable degrees of openness or selectivity of enrollment, concerns about the quality of education, and concern about resources. Faculty familiarity with or involvement in distance education were not addressed. In contrast, the studies addressed next were of faculty involved in teaching at a distance; only one study was found that used a comparison group of faculty who had taught at a distance versus faculty who had not (Stinehart, 1987). A Canadian study compared the attitudes of graduate deans and distance education administrators (Kirby & Garrison, 1990).

Studies of Faculty Involved in Distance Education

The seven studies of faculty involved in distance education outlined in Table 2.1 found that the majority of faculty viewed distance education positively. Different models of distance education delivery in various countries and even within countries present a major difficulty in comparing and synthesizing research findings. Practices in Sweden and Australia are similar where the same faculty usually teach courses to both on-campus and distance students using slightly modified course materials for the latter group (Dahllof,1984). Further, Siaciwena (1989) claims that distance education at the University of Zambia follows the Australian model so that research findings about faculty attitudes towards distance education in both countries may be comparable.

The studies in Table 2.1 all sought faculty views of distance education as part of larger studies, such as overall program evaluation or staff development. All were about distance education courses for degree credit from conventional universities. The questionnaire items in each study were markedly different and it was difficult to determine the basis for concluding comments regarding faculty attitudes towards distance education. Reference to theory was lacking in three studies and a different theory was used in each of the others.

The majority of the faculty were reportedly positive about distance education. Although not addressed extensively, the studies did not report significant concern about student achievement or the quality of courses or students. Despite positive views, faculty concerns about a heavier workload in distance teaching were common to all studies in Table 2.1. The faculty found distance teaching more demanding than regular teaching. Time allocation for the preparation of course materials and rewards for distance teaching were considered inadequate. The need for faculty orientation and faculty support in their adjustments to distance teaching were noted in all studies. Descriptive accounts of approaches to providing

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Table 2.1. Studies Reporting on Attitudes of Faculty Involved in Distance Education (DE)

Author/Place of Study
> Context, Method, and Attitudes Reported

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1. Burnham (1988); Utah State University, Utah, U. S. A.
   Evaluation of teacher reactions in a distance teaching project
   Conversational interviews (n=10)
   Faculty were pleased with the system and put great effort into course preparation
   which benefitted regular teaching

- -

2. Clark, Soliman & Sungalia (1984); University of New England, Australia
   Part of a program evaluation with a view to staff development needs.
   Mail questionnaire (n=102)
   Most found DE more demanding but enjoyable

- -

3. Parer, Croker & Shaw (1988); Four Institutions in Australia and New Zealand
   A study of institutional policies and rewards for distance teaching
   Telephone interview based on a questionnaire (n=70)
   Seventy-three percent (73%) were positive towards DE

- -

4. Scriven (1986); Brisbane College of Advanced Education, Australia
   Part of a study on staff development; Mail questionnaire (n=87)
   Majority considered distance education as important as regular teaching

- -

5. Siaciwena (1989); University of Zambia, Zambia
   Part of distance education program evaluation
   Mail questionnaire (n=18)
   Most were positive but felt DE was an extra burden without sufficient rewards

- -

6. Taylor & White (1991); University College of Southern Queensland
   Studied in terms of personal job satisfaction; Mail questionnaire (n=37)
   Overall attitude towards distance teaching was favourable but faculty definitely
   preferred conventional teaching

- -

7. Willen (1981); Swedish Universities
   Part of a program evaluation; focused mainly on students
   Interviews prior to mail questionnaire (n=120)
   Majority were very satisfied

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support for faculty in their adjustments to distance teaching, especially for course preparation,

also support these finding (Eastcott, 1981; Meachem, 1982; Naidu, 1988). Additional

indications of faculty adjustments to teaching at a distance are provided by McQuire's (1988)

ethnographic study at Athabasca University, a Canadian institution designed specifically for

distance teaching. McQuire (1988) found that academics experience confusion and stress in their adjustments which are not totally resolved after two to four years.

Siaciwena (1989) addressed course writing in relation to quality; the majority of respondents believed the team preparation of materials, professional editing, and course pretesting improved quality. Faculty were concerned about student contact which they felt was limited except during residential sessions on-campus; however, students viewed support services as satisfactory (Siaciwena, 1989). Taylor and White (1991) found that faculty believed the quality of interaction with distance students was not as good as for on-campus students and this was the reason why faculty definitely preferred on campus teaching. Almost half (47%) of the faculty in Willen's (1981) study said that the quality of contact with distance students was better than contact with on-campus students; this was attributed to telephone contact and the use of residential sessions. Willen (1981, p.245) also reported that "the pass rates of distance students were exceptionally high compared to other forms of education." Clark, Soliman, and Sungalia (1984) found that 52% of the faculty believed distance students were more prepared for university work than were on-campus students. There was strong agreement among the faculty studied by Parer, Croker, and Shaw (1988) that satisfactory academic criteria could be met by distance education. This is compatible with other research comparing student achievement in distance and on-campus classes. Although there are numerous problems with the design and control of variables in studies comparing distance and classroom learning (Coldeway, 1982), they consistently show that distance students achieve as well as, or better than, their counterparts on-campus (for example Carver & MacKay, 1986; Chick & Pybus, 1984; Childs, 1971; Cookson, 1989; Dodd, 1981; Whittington, 1987; Ziggerell, 1984).

The seven studies discussed above all used different question formats for data collection specific to their purpose and to the context in which they were conducted, so that comparisons are limited. Nevertheless, faculty held overall positive attitudes towards

distance education. Their dissatisfactions were primarily about heavier workloads associated with distance teaching, lack of formal rewards, and the adjustments from their usual teaching practices. Faculty concerns about course quality and student contact were aimed at the continual improvement of existing practices.

Kirby and Garrison (1990) conducted telephone interviews with six pairs of graduate deans and distance education administrators in six Canadian universities. Their study assumed that deans are key decision makers in the institution and did not mention the authority faculty have over academic programs. Differences were found between the groups in their perceptions of the potential, role, and need for graduate distance education. The graduate deans believed on-campus, face-to-face instruction was superior to distance education because of the need for interaction with students. The graduate deans were largely unfamiliar with distance education techniques and this was believed to make them more wary about the quality of distance education. Distance education administrators advocated graduate distance education and believed that technology enables suitable interaction.

A Comparative Study of Faculty

Stinehart (1987) studied the relative influence of factors on faculty willingness to participate in distance teaching at Iowa State University in the United States. Her study compared a group of 53 faculty who had taught at a distance with 52 faculty who had not. Stinehart (1987) viewed distance education as a subset of instructional technology reflective of the extensive use of various forms of television broadcasts and audioteleconferencing at Iowa State. However, the use of technology varies widely amongst programs and the trend in many places is away from extensive use of television with more reliance on print, audiotapes, and telephone technology (Bates, 1984 ; Daniel, 1986; Willen, 1981).

Stinehart (1987, p. 1) found that the literature she reviewed was "..largely a chronicle of faculty resistance" towards distance education and the use of instructional communications technology. Therefore, she assumed faculty resistance; however, her findings seem to contradict that assumption. Almost one half (46%) of the randomly selected group of faculty who had not taught at a distance were willing to participate and 76% of experienced faculty were willing to continue distance teaching (Stinehart, 1987, p. 103). Overall, only 25% of the 105 faculty surveyed were unwilling to participate in distance teaching (Stinehart, 1987, p. 94).

Faculty perceptions of their control over distance teaching was the greatest predictor of willingness to participate regardless of experience and accounted for 38% of the variance. Control was the dominant concern for inexperienced faculty. Faculty who perceived distance teaching as reducing their control over teaching were not as willing to participate. Perceptions about the use of technology for instruction, such as comfort level and whether or not technology was impersonal and isolating, also significantly affected willingness to participate. Institutional support for distance teaching was not viewed satisfactorily by either group, with concerns about the university reward system for teaching identified as a major discouraging factor.

Faculty awareness of distance education was positively related to willingness to participate and the expense of distance education was viewed as an appropriate use of university resources more often by the faculty who had participated. Amongst the inexperienced faculty, the more they felt distance teaching increased their listening and communication skills the more willing they were to teach at a distance. The perception that distance teaching technologies provide more resources for students than many methods of classroom instruction was the only quality item of significance and was significant only in the inexperienced group. One access item was included in the category of institutional support and did not show significance. Analysis of demographic variables did not show any definitive

patterns. Basically, Stinehart's study focused strongly on instructional technology and her questionnaire and findings reflect that emphasis. The questionnaire relied on items constructed by the researcher and limited the possibilities of identifying and exploring other areas of faculty concern.

Innovation Studies

Innovation and change literature was used in two studies of faculty attitudes considered relevant to this research. Rishante (1985) conducted a survey of faculty attitudes within the conventional University of Jos in Nigeria, towards a distance education innovation: the Nigerian Open University (NOUN). Rishante surveyed 32% (n=94) of the faculty using a Likert-type questionnaire. This was supplemented by semi-structured interviews of 32% of the administrators (n=9) which, according to Rishante, validated survey findings. Supplementary interviews were not carried out with any of the faculty despite Rishante's argument that faculty play a critical role in the implementation of the innovation. Therefore, Rishante's (1985, p.116) contention that interviews of administrators provided "...greater insights into faculty perceptions" is questionable.

While Rishante found that 47.7% of the faculty held favourable attitudes towards NOUN and 59% were willing to participate in NOUN, a sizable 19.5% were neutral. Less than half (42%) of the faculty in Rishante's (1985) study were familiar with the concept of distance education and this lack of information was associated with unfavourable attitudes. Lack of distance education-related skills and beliefs that the system of 32 conventional universities in Nigeria was adequate were the major reasons for unwillingness to participate. Rishante did not observe any indication that the faculty saw distance education as a "makeshift second-best" approach, especially amongst the key respondent group interviewed. The main themes emerging from the interview data indicated the importance of perceptions about the broader issues of social justice and the accessibility of higher education, of educational quality, and of

opportunities for faculty (Rishante, 1985, p. 146).

Despite the fact that governmental and political circumstances surrounding the establishment of NOUN were in a state of turmoil, the influences of these external factors were not fully addressed in the study because of the microanalytic approach taken. It was noted, especially in interviews with key respondents, that many felt Nigeria was not sufficiently advanced technically and did not have adequate financial and human resources to implement NOUN successfully. Views on resource limitations were a major point of disagreement between those with favourable and those with unfavourable attitudes towards NOUN.

The second innovation study by Johnson (1978) investigated faculty receptivity towards the proposed graduate external degree program at the University of Michigan. Although external degree programs have some similarities with distance education, they are not usually considered to fall within the concept of distance education because they tend to rely on the replication of on-campus instruction in off-campus locations. However, Johnson (1978, p. 214) defined external degree programs as instruction that is "...made accessible to students living away from the campus, either by holding courses at different times or places or by using alternative modes of instruction" and she looked at specific items on "new delivery methods as opposed to formats closer to the traditional." In this regard, she found professional faculty were more favourable (60%) to television, audio or videotapes, computer programs and self-instructional texts than the arts and sciences faculty where only about 40% were favourable (Johnson, 1978, p. 105).

Although Johnson's (1978) study looked more at the total situation and the interaction of individual, organizational, and program variables than Rishante's (1985), Johnson used a similar research approach of a Likert-type questionnaire with quantitative analysis. Written comments on about half of the 418 returned questionnaires provided some qualitative data to confirm the main findings. Johnson's (1978) overall findings contradict what she refers to as

the common stereotyping in the literature that academics are conservative and resistant to change. Instead, Johnson (1978, p. 180) concluded that "the popular image of professors as conservative resistors of change appears to be a distorted and inaccurate representation of academic people." The majority of faculty (80%) could better be described as ambivalent and "...interested, yet sceptical, positive with reservations" (Johnson, 1978, p. 181). Johnson attributes this ambivalence to a conflict arising mainly from perceived incompatibility between the goals of academic excellence and expanding educational opportunities. Faculty agreement with variables about increased access were positively related to faculty receptivity to the external degree program while quality concern variables were negatively related. Furthermore, written comments about quality issues were the second most frequent theme in the qualitative data and ranked second only to individual concerns about satisfactory reward and workload arrangements. Comments about the calibre and performance of students were the third most common.

In terms of professional characteristics, only familiarity with the change and non-academic background were good predictors of the extent to which faculty favored or opposed the external degree program. Overall, variables falling in the categories of desirability and feasibility were the strongest predictors of faculty receptivity. Desirability factors arose from the interaction of program and individual variables, such as agreement that program accessibility needed to be increased, the desirability of alternative modes of instruction, and concerns about quality. Feasibility factors arose from the interaction of program and organizational variables and included anticipated instructional difficulty and anticipated benefits. Johnson (1978) did not define desirability and feasibility other than by the specific question items falling within each category. However, the categories are similar to the attributes of a change that influence its successful implementation (Levine, 1980; Rogers, 1983).

The variables Johnson (1978) categorized as desirability and feasibility had a conjoint

influence on receptivity and Johnson (1978, p. 126) remarked on the importance of "key attitudinal factors of a more subjective nature":

> ...when faculty members comment on the 'feasibility' of external programs, they are expressing more than an objective summation of the probable pros and cons. They are also responding in terms of certain attitudes related to their interest in instructional or curricular experimentation, their concerns about program quality, their feelings about their present and future workload, and their values regarding the goal of accessibility.

The findings of Johnson (1978) and Rishante (1985) regarding faculty attitudes have some similarities despite differences in the variables studied, in the context, and in the type of innovation involved. They both found that the majority of faculty were neither strongly opposed nor strongly in favour of the innovation; instead more than three quarters of the respondents were classified as ambivalent by Johnson (80%) and as neutral by Rishante (78%). In both cases, approximately 10% were classified as strongly opposed and 10% as strongly in favour of the innovation. As Johnson claims, this picture is inconsistent with comments in the literature that faculty are highly resistant to instructional change. It seems that the complexities of faculty responses, the conflicts and the subjective factors involved might be better illuminated by indepth qualitative data from faculty interviews than by mail surveys.

Conclusions Based on Faculty Attitude Studies

The research studies reviewed were either descriptive, without a conceptual framework, or they used different theoretical approaches which made it impossible to compare and synthesize the findings. The literature on university expansion, on instructional technology, and on innovation and change informed different studies. With the exception of Johnson (1978), little reference was made to literature on universities as organizations and academic

culture despite the fact that many situational factors such as workload, rewards, and values about access and quality were found important. Many of the reports of faculty attitudes towards distance education come from larger studies with other primary purposes. The studies relied primarily on mail questionnaire surveys and quantitative analysis. Such surveys have provided some information about the correlates of attitudes and about faculty responses to the questionnaire items constructed by researchers. However, insight into faculty reasoning behind their responses and how faculty understand distance education is not available.

The sparse empirical evidence on faculty attitudes towards distance education reveals that the majority of faculty are likely neutral or ambivalent, with only a small percentage either strongly opposed or strongly supportive. Little comparative work has been done on differences in the perceptions of faculty who are supportive of, opposed to, or undecided about distance education. Familiarity with distance education is consistently associated with more positive views and the majority of faculty who have taught at a distance are positive about teaching this way, about the quality of the students, and about the standard of learning outcomes. It cannot be assumed that large numbers of faculty are opposed to distance education and resistant to change, along with the connotations of irrationality that carries. Nevertheless, the faculty who are opposed and undecided may determine the outcome of distance education proposals that require the approval of academic committees in accordance with the practice of academic self-governance in universities.

Faculty do have concerns about distance education but their concerns appear to be connected to the broader issues of access and quality and to conflicting situational factors confronting faculty, and not just to distance education itself. However, the exploration of what faculty identify as the most important factors and of how faculty understand the influence of such factors has not been undertaken by virtue of the research methods used. The only related Canadian studies on the topic are McQuire's (1985) research on faculty adjustments to

working in a distance teaching university, plus Kirby and Garrison's (1990) study of graduate deans and distance education administrators.

Universities and Academic Culture

Faculty concerns about access goals, quality, rewards, workload, and control over teaching can be more fully understood by looking at the features of universities as organizations and at aspects of academic culture. Universities are service organizations with at least two major goals : teaching and research. Authors from the United States consistently identify a third goal of public service which is common in Canadian universities as well (Apps, 1988; Becher & Kogan, 1980; Blackburn, 1974; Harten & Boyer, 1985; Millet, 1962; Ross, 1976). There have been changes in the perceived role of universities since the second world war, corresponding to the expansion and diversification of higher education which Trow (1973) calls the transition from elite to mass higher education. The transition involved a move away from a general liberal education in small, residential institutions focused on character development, towards large institutions and the linking of higher education with the development of human capital and economic growth. The elite versus mass notions of higher education continue to be a source of conflict regarding what constitutes the proper role of the university and how quality can be achieved (Leslie, 1980; Ross, 1976; Trow, 1987).

The goals of teaching and research present major conflicts for individual academics who must divide their attention and time in different directions. Halsey and Trow (1971, p. 276) claim that " The tension between teaching and research is a central problem in modern universities." The conflict is heightened by the reward system of the university which is usually thought to provide more incentives for research than for teaching in terms of tenure and promotion decisions (Becher & Kogan, 1980). The goal of increasing the accessibility of higher education relates to teaching and service goals and tends to increase the workload of academics without corresponding rewards (Patton, 1975 ; Siawenia,1989; Stinehart, 1987).

Ways of increasing accessibility for part-time adults may be considered nontraditional goals which receive less support than traditional goals from administrators and faculty alike (Apps, 1988; Harten & Boyer, 1985; Rugg, Warren & Carpenter, 1981).

The culture and subcultures of organizations may be considered a set of shared understandings and meanings that influence the behaviour of individuals (Jelinek, Smircich & Hirsch, 1983). Culture encompasses the norms and values of the system which Katz and Kahn (1978, p. 385) differentiate as follows: "Norms refer to the expected behaviour sanctioned by the system and thus have a specific ought or must quality. Values furnish rationale for the normative requirements." Becher and Kogan (1980) believe universities have two interacting modes of functioning: the normative mode which monitors and maintains values within the system and the operational mode which accomplishes practical tasks and the allocation of resources. Hence, it is reasonable that faculty concerns may be related to both modes of functioning, such as the compatibility of distance education with existing norms and values and the logistics of teaching at a distance.

Studies of academics reveal they hold distinctive beliefs and have a way of life that varies tremendously across disciplines yet have many similarities that characterize the academic profession as a whole even in different countries (Becher, 1981; 1987; Clark, 1987). The privilege of academic independence is a major commonality (Becher, 1987). C. P. Snow (1959) first proposed that the university has two cultures, the literary and the scientific, that form polarized academic camps. The differences extend beyond subject matter and include values and beliefs. Gaff and Wilson (1971) found evidence of different cultures in the teaching styles of academic groups and concluded that the differences were related to the truth strategies used by various disciplines. Since then several conceptual approaches in sociology and psychology have been used to systematically look at the subcultures of the disciplines. The subcultures are defined by the nature of knowledge and research in the discipline rather than by teaching (Becher, 1989; Biglan, 1973a). This is based on the work of Kuhn (1962)

who advanced the notion of different research paradigms that reflected different world views and research styles. In the view of Clark (1983, p. 12), "Disciplines are thought groups that have individual thought styles."

The grouping of disciplines according to the notion of low-paradigm versus high-paradigms in the social and physical sciences respectively, was developed by Lodahl and Gordon (1973), and found useful by Thompson and Brewster (1978) to look at faculty voting patterns in senate on giving students more freedom of choice in the curriculum. The low-paradigm faculty almost unanimously supported giving students more freedom of choice in the curriculum, while two-thirds of the high-paradigm faculty voted against this liberal move. Thompson and Brewster (1978) concluded that faculty in the sciences tend to think that only faculty members should establish degree requirements.

The "Biglan Model" is another widely used and validated way of looking at disciplinary cultures (Becher, 1989; Biglan, 1973a; Creswell & Bean, 1981; Muffo & Langston IV, 1981; Smart & Elton, 1982). The Biglan approach classifies disciplines along the dimensions of hard or soft knowledge, pure or applied research, and life or nonlife systems. However, several researchers found that the life/nonlife dimension of the Biglan classification was less explanatory than the hard/soft and pure/applied dimensions (Becher, 1989; Malaney, 1986; Smart & Elton, 1982). The hard versus soft dimension is comparable to the low versus high paradigm designation of Lodahl and Gordon (1973). Hence, the most recent research on academic culture (Becher, 1989) uses only these two dimensions. The hard/soft aspect refers to the degree to which a clearly delineated paradigm exists and the pure/applied refers to the extent of concern with the practical application of the subject matter. The values and attitudes of academics in different disciplines often vary accordingly, although strong evidence for this was not found in studies of faculty attitudes towards distance education and related programs (Johnson, 1978;.Rishante, 1985). However, these studies relied on how the institution grouped faculty rather than using a conceptual way of classifying the disciplines and this may

explain the lack of significant findings by discipline. Clark (1987) believes that cultural and attitudinal differences are most evident between professional schools and liberal arts disciplines because the professions have to also abide by the norms of the outside practice profession. Hence, the professional schools might be more receptive to demands for increased access to higher education, especially from professional groups. Rugg, Warren and Carpenter (1981) found more support for nontraditional goals including off-campus learning amongst education than liberal arts faculty.

Virtually all the literature about the academic profession is based on white male populations, although there are some indications that women view things differently (Becher, 1989; Blackburn, 1974). Gender is usually not accounted for in the distance education studies reviewed. However, Anwyl and Bowden (1986) reported women faculty were more supportive than men of both distance education and part-time studies. In a study of faculty attitudes toward continuing education in Texas, Schalk (1984) found significant differences in the attitudes of female and male academics toward adult learners and concluded that "women as a group may be more flexible, have more insight into the needs of adult students, and be more willing to change their academic approaches to meet these needs." In his study of disciplinary cultures, Becher (1989, p. 179) did not interview enough women "to draw meaningful distinctions between men and women;" however, if he were to do the study again, he would "build in some more systematic allowance for gender differences."

The cultural commonalities of the academic profession as a whole include a high regard for quality, excellence, and reputation, an emphasis on autonomy and self-governance, and high workload commitments (Becher, 1981; 1987; Blackburn, 1974; Clark, 1987; Halsey & Trow, 1971; Startup, 1979). Values surrounding quality may come into conflict with other values such as those related to access goals aimed at providing equal educational opportunities (Clark, 1983). However, the quality value is usually held highest and influences faculty attitudes and decisions the most. Johnson (1978) found that most faculty were concerned

about both access and quality but that quality concerns held more weight. However, Apps (1988, p. 208) believes that "quality is often used as a smoke-screen to avoid change;" hence, deviations from face-to-face lectures are considered to lack quality.

Personal autonomy and self-governance are traditional values of academics (Becher & Kogan, 1980; Halsey & Trow, 1971; Millet, 1962; Ross, 1976). Professional expertise is the basis of the authority and power exercised by academics (Clark, 1987; Mintzberg, 1985). This authority is perhaps most evident in relation to teaching where academics maintain highly personal control (Clark, 1987). Essentially what happens within the classroom is considered a private matter and is seldom the topic of discussion with peers (Becher & Kogan, 1980). Hence, faculty view the team approaches often found in distance education to be a major adjustment (McQuire, 1985) and faculty perceptions of control over the teaching-learning process in distance education significantly influence their attitudes towards that teaching method (Stinehart, 1987).

Aside from personal autonomy, the other main source of academic power resides in the practice of collegial self-government (Clark, 1987). Self-governance remains a norm of university life, although Millet's (1962) ideal description of universities as communities of scholars who arrive at decisions by rational discussion and consensus is probably nonexistent. However, it is debatable how much personal autonomy academics have regarding changes in teaching programs which come under the scrutiny of collegial self-governance where the negative votes of academics can hold more weight than their power of assent (Becher & Kogan, 1980, p. 141). This may explain the concern of distance educators about negative attitudes towards distance education because faculty may exercise the power of peer control to prevent or curtail developments in this area.

Academics commonly display almost obsessional commitment to their work and carry an unusually heavy workload (Becher, 1987; Blackburn, 1974; Bowen & Schuster, 1986).

Faculty are often frustrated by lack of time to accomplish everything they want to do and, while faculty may be able to reallocate how they spend their time, it is usually unreasonable to add other demands (Blackburn, 1974). Gmelch, Lovrich and Wilke (1984) found that time and resource demands were amongst the greatest stressors for faculty and that teaching was more stressful than research or service. However, "very demanding self-imposed standards" appeared to be a major reason for this (Gmelch, Lovrich & Wilke, 1984, p. 488). Hence, the considerable concerns faculty express about workload in relation to distance education must be seriously considered in this light.

The importance of assessing situational factors that may determine the behaviour of individuals has been advocated by social psychologists for some time (Katz & Kahn, 1978; Lewin, 1951). The situational factors that influence behaviour at any given time are those the individual perceives as important (Lewin, 1951). The features of the university and academic culture discussed above may be factors faculty perceive as having an important impact on their support for distance education. Schein (1972) claims that the culture and norms of the academic profession are a major source of resistance to change.

<div align="center">Resistance to Change</div>

Universities and academics have been characterized as resistant to change in general and this opinion has also been expressed in relation to distance education (Becher & Kogan, 1980; Berg & Ostergren, 1977; Clark, 1983; Rishante, 1985; Stinehart, 1987). Although resistance to change is often discussed as something negative to be overcome, it serves the useful purpose of assuring stability and continuity amidst change. The desire to maintain balance by either the individual or the social system is considered a reason for resistance to change, defined as behaviour which maintains the status quo (Zaltman, Florio, & Sikoriski, 1977; Watson, 1969). The process of change has different stages which are given different names by various authors; most indicate that the greatest resistance to change may occur

during the initial stage when people may not be aware of a problem or demand that calls for change, or before people feel sufficient psychological comfort to support a change (Lewin, 1951; Rogers, 1983; Schein, 1972; Zaltman, Florio, & Sikorski, 1977).

The nature of resistance to change has been addressed in relation to both individual factors and aspects of the social system in which the change occurs (Katz & Kahn, 1978; Watson,1969). Individual factors include the need for stability, security, preference for the familiar, reliance on habit, and selective perception once attitudes are formed (Watson, 1969). The sources of resistance to change in social systems encompass conformity to norms, the vested interests of certain groups, threats to power relationships, and the difficulty of changing bureaucratic structures that have built-in resistance to change (Katz & Kahn, 1978; Watson, 1969). However, the view is widely held that these factors interact and cannot be easily singled out (Berg & Ostergren, 1977; Downs & Mohr, 1976). Researchers of change in universities claim it is necessary to consider unique characteristics of the university as an organization, as well as the particular type of change introduced, in addition to including the characteristics of the academics involved (Berg & Ostergren, 1978; Levine, 1980; Mathias & Rutherford, 1982).

Much has been written about the features of a change or innovation that inhibit or enhance the likelihood of adoption both by individuals and by organizations. In a synthesis of this voluminous literature Rogers and Shoemaker (1971) concluded that these features can be accounted for by five categories:

1. Relative advantage: the perception of the innovation as being better than past practice;

2. Compatibility: consistency with existing values, past experiences, and current needs;

3. Trialability: ease of trying on a limited basis;

4. Observability: the results are easily seen or measured;

5. Complexity: difficulty in understanding and using.

However, Levine (1980) claims that only two categories of attributes, compatibility and profitability, are needed to explain the successful implementation of a change in higher education. Levine defines compatibility as congruence with the norms, goals, and values of the organization. Despite the economic connotation of profitability, Levine includes the subjective and much broader aspects of noneconomic profits, such as prestige, peer approval, and intrinsic satisfaction as profitability (Levine, 1980, p. 19).

Two other researchers of innovation in higher education view the compatibility and profitability of the change as the most explanatory of people's reactions, although they use different terms. Berg and Ostergren(1977, p.) include compatibility and profitability under the "dynamic construct" of "gain/loss" and Johnson (1978) found the categories of desirability and feasibility a useful way to group variables for analysis. Johnson (1978) stated that desirability was similar to compatibility but her use of feasibility referred more to the logistics of and requirements for implementation.

Despite the lack of consensus about the most important attributes of a change that affect its implementation, categorizations along the lines of Levine (1980) and Johnson (1978) appear more useful than the longer, more specific lists (such as Zaltman,Florio & Sikorski, 1977) that attempt to capture finer details but obscure the broader picture. Compatibility emerges as a paramount attribute determining the success of a change. Profitability or feasibility are also crucial but there is less agreement on how to define these attributes.

Summary

This chapter outlined how distance education is defined and reviewed empirical studies of faculty attitudes towards distance education and similar programs. Relevant literature on universities as organizations, on academic culture, and on resistance to change was also discussed. Distance education may be viewed within the broader context of the transition

from an elite to a mass system of higher education; hence, distance education represents change both in instructional practices and in the broader sense of changes in the accessibility and diversification of higher education. The limited research available suggests that faculty support for distance education is determined by faculty beliefs about the accessibility and quality of university education, and by faculty interpretations of situational factors that influence the implementation of distance education. The important situational factors concern universities as organizations and academic cultures, particularly university goals, the reward system, and the academic norms of faculty autonomy, self-governance, high regard for reputation and quality, and heavy workloads. However, these factors are given relatively little attention in the studies reported.

Contrary to the popular belief that faculty are resistant to change, several studies found that most faculty were ambivalent and sceptical about distance education, with only a small percentage either strongly in favour or strongly opposed. Faculty who are familiar with distance education hold more favourable opinions but the reasons why have not been investigated. There are few definitive patterns regarding the influence of professional characteristics. Research based on the change literature suggests that two categories of the attributes of a change, compatibility and feasibility, hold potential for explaining faculty reactions to distance education.

A comparison of studies related to faculty support for distance education is limited because of considerable variation among them. Theoretical approaches and the variables investigated differed among studies. The necessity of faculty cooperation and support for the implementation of distance education was a common reason for conducting research. The studies relied primarily on faculty responses to predetermined questions on mail surveys, followed by statistical analyses. An indepth exploration of how faculty understand and reason about the factors that determine their support for distance education has not been undertaken. In preparation for such a study, the main themes from the literature reviewed here provide an

orientation for the conceptual framework, objectives, and research questions presented in the next chapter.

CHAPTER 3

CONCEPTUAL FRAMEWORK, OBJECTIVES, AND RESEARCH QUESTIONS

This chapter presents the conceptual framework, the objectives, and the research questions for the study. The five elements of the conceptual framework and the anticipated relationships among them are described. Following this, the research objectives and questions that operationalize the conceptual framework and provide specific direction to the study are identified.

Conceptual Framework

A conceptual framework focuses and guides a study by identifying and explaining "the main dimensions to be studied--key factors, or variables--and the presumed relationships among them" (Miles & Huberman, 1984, p. 28). The concepts used represent a deliberate simplification of complex situations in order to make them "more readily comprehensible while remaining true to reality" (Becher & Kogan, 1980, p. 10). Together, the concepts and the presumed relationships among them form the framework or boundaries of the study.

The concepts selected for the conceptual framework were based on the literature review and on personal experience that suggested their usefulness for the purposes of the study. There was no theory or conceptual framework in the literature that was suitable for adoption in this study. Instead, there were a number of fragmented findings and suggestions that provided "sensitizing concepts" that served as "general guidepost's for the study" (Bryman, 1988, p. 67). The concepts selected drew heavily on the categories of analysis devised by Johnson (1978) and on the findings of that study, most notably the importance of compatibility and feasibility.

The conceptual framework consisted of five concepts: 1. Faculty Support; 2. Familiarity; 3. Professional Characteristics; 4. Compatibility, and 5. Feasibility. The concept of faculty support for distance education was defined as how faculty would speak about and vote for distance education courses for degree credit. Familiarity is the extent to which faculty have personal knowledge of distance education from readings, discussions, or involvement in distance education. Discussions include the extent of conversation with other faculty about distance education activities within the university or about what other institutions are doing. Involvement includes planning, teaching, or administering distance education courses, and involvement as a student in a distance education course. Familiarity may be influenced by professional characteristics in that faculty from certain disciplines or with certain role preferences may be more familiar with instructional methods.

Empirical evidence about the influence of professional characteristics, often called demographic variables, on faculty support for distance education indicated that many are not significant. However, there was some evidence that the professional characteristics of gender, discipline, role preferences for teaching or research and research type may be related to faculty support for distance education. Therefore, these items were included within the concept of professional characteristics.

The concepts of compatibility and feasibility were the most abstract and inclusive concepts in the framework and they subsumed the situational factors that may influence faculty support. The distinctions between compatibility and feasibility are outlined next, followed by a discussion of the indicators identified for each.

The Distinction between Compatibility and Feasibility

Compatibility and feasibility are described in relation to each other in order to make the connections and distinctions between them clear. Compatibility is defined as the perceived

congruence of distance education with the beliefs and values of the individual. Feasibility is the perceived ability to successfully implement distance education.

The distinctions between compatibility and feasibility may be explained with reference to Becher and Kogan's (1980) notion of the two modes of functioning in universities: the normative mode which monitors and maintains values within the system and the operational mode which allocates resources and accomplishes practical tasks. The two modes interact and may seem inseparable, similar to the connections between mind and body; nevertheless, their characteristics can be differentiated sufficiently for theoretical purposes (Becher & Kogan, 1980, p. 13).

Compatibility refers to the normative mode. Monitoring standards and dealing with issues of quality and academic rigour are normative tasks (Becher & Kogan, 1980, p.147). Feasibility refers to the operational mode and deals with the practicalities of implementation. In other words, compatibility concerns whether or not distance education is seen as a desirable and appropriate thing to do, while feasibility addresses whether or not distance education is deemed possible.

Compatibility

The major indicators of how faculty understand the compatibility of distance education were faculty perceptions about accessibility to university study and the quality of distance education. Table 3.1 outlines the items included under accessibility and quality.

Table 3.1. Indicators of the Compatibility of Distance Education

Factors	Indicators
Accessibility	How accessible higher education should be
	Openness or selectivity of universities
	Services for adult, part-time students
Quality	Student calibre
	Quality of teaching materials
	Interaction with students
	The on-campus experience

Accessibility. This comprises faculty beliefs about how accessible higher education should be to people. Awareness of accessibility issues and awareness of developments in distance education, as one alternative for increasing the accessibility of higher education, form a basis for perceptions about accessibility in relation to distance education. Beliefs about social justice and equal educational opportunities may underlie these perceptions. Distance education increases accessibility to university education especially for adult, part-time students and for students distant from a university. Hence, faculty perceptions about these particular groups were the focus of attention.

Quality. Quality refers to what faculty perceive to be the degree of excellence of distance education. The literature indicates that most faculty will likely base their perceptions about the quality of distance education on a comparison with existing practices; further, their perceptions may be rooted in academic norms and beliefs about what constitutes a university education. This includes the calibre of the students, the quality of the teaching materials, and the importance of interactional experiences between students, faculty, and other students.

<u>Feasibility</u>

The indicators of feasibility were faculty views about three groups of factors: 1. resources available for distance education; 2. institutional support for the implementation of distance education, and 3. the perceived personal impact of distance education on faculty. Table 3.2 gives an outline of the indicators for each.

Table 3.2. Indicators for Three Groups of Feasibility Factors

Factors	Indicators
Resources	Cost
	Technology and library facilities
	Human resources for teaching and administration
Institutional Support	Rewards for teaching versus research
	Academic rules and regulations
	Views of other faculty
	Administrative leadership
Personal Impact	Workload
	Adjustments to distance teaching
	Satisfactions and benefits

<u>Resources</u>. This takes in faculty views about the financial, physical, and human resources involved in implementing distance education. Physical resources include the availability of appropriate technology and library services for distance students. Human resources include the expertise thought necessary to develop, to teach, and to administer distance education courses for degree credit.

Institutional Support. This embraces faculty perceptions about the degree to which various institutional structures and regulations, and the views of colleagues and administrators influence their own views on the practicalities of implementing distance education. The structure of formal rewards and recognition for teaching and service, versus research, was expected to be an important factor in this group. Perspectives on the effects of various academic rules and regulations, such as those related to course approvals, admissions, registration, time schedules for course completion, and transfer credit regulations were included. Additionally, faculty perceptions about the existence and influence of peer approval or disapproval of distance education were considered here because of the potential effects on faculty support for the implementation of distance education. For similar reasons, faculty perceptions about the importance of administrative leadership to their own support for distance education were also included.

Personal Impact. This comprises faculty perceptions of how distance education courses for degree credit may affect them personally, either directly by their involvement, or as a result of indirect effects, due to the commitments of the department or university to distance education. The possibility of workload changes was expected to be an important factor under perceived personal impact. The anticipated adjustments of faculty to teaching at a distance were also included, especially concerns about their ability to prepare materials and to use technology for communication with students. On a more positive note, faculty perceptions about intrinsic satisfactions and benefits from teaching at a distance were addressed here, for example, the challenge involved, the opportunity to learn new skills, or the enjoyment of teaching students at a distance.

Logical Relationships Among the Concepts

The assumed relationships among the concepts in a framework are commonly shown by arrows that mirror both logical and empirical suggestions about them (Miles & Huberman, 1984, p. 29). Hence, the arrows connecting the concepts in Figure 3.1 represent the presupposed existence of relationships among them and their anticipated influence on faculty support for distance education.

Figure 3.1 Conceptual Framework for the Study

As stated earlier, faculty familiarity with distance education is likely to influence both perceived compatibility and feasibility. Furthermore, faculty familiarity with distance education may be associated with the extent of faculty support. Therefore, the concept of familiarity was expected to interact with compatibility and feasibility, and thereby to affect faculty support, as the arrows indicate. Professional characteristics may influence both faculty familiarity and support; however, these concepts are joined by broken arrows because the associations among them were expected to be weaker.

Faculty perceptions about the compatibility and feasibility of distance education were expected to hold the most potential for understanding and explaining faculty support for distance education, in accordance with Johnson's (1978) findings. However, these concepts are not easily separated and are likely to interact in the minds of faculty. In general, compatibility issues are likely to precede a concern for feasibility issues. If distance education is viewed as incompatible, feasibility may not be a consideration; but when distance education is viewed as compatible a consideration of feasibility factors follows. Becher and Kogan (1980) claim that the most influential factors related to change in universities appear to be normative, that is, to be based on values and the reasons why things are done. Overall, compatibility issues are likely to affect feasibility issues more directly than the reverse. Therefore, a solid arrow indicates interactions between compatibility and feasibility in Figure 3.1 while a broken arrow connects feasibility to compatibility.

All the arrows in Figure 3.1 represent expected relationships based partly on common sense reasoning rather than on extensive empirical evidence. A major task of this research was to provide insight into the relationships presumed and the reasons for these relationships, mainly in terms of how faculty think and reason about the complex and often conflicting situational factors involved.

The conceptual framework was considered exploratory because it was based on limited empirical or theoretical work. Some of the relationships presumed have been demonstrated in empirical studies of similar programs in countries outside Canada, especially the anticipated positive association between faculty familiarity and support. However, the investigators did not use the same definition of faculty support as used in this study. Instead, the relationship between familiarity and support was inferred from indicators of faculty attitudes, faculty receptivity, or faculty willingness to participate. Other relationships were based on more tentative and fragmented evidence. The relationships between compatibility and feasibility build on the findings of Johnson (1978); however, these concepts were constituted differently in this study; they embraced a different composition of factors intended to retain the most significant findings of Johnson (1978) and to incorporate ideas from other literature. If a conceptual framework is to be a useful research tool, it must not be "so tightly structured that serendipitious findings will be excluded;" instead, it must allow for "the possibility of going beyond initial preconceptions" (Miles & Huberman, 1984, p. 15). Hence, this framework was intended to focus and guide systematic exploration of the study problem, without blinding the researcher to unanticipated findings (Guba & Lincoln, 1989).

Research Objectives and Questions

The research objectives to operationalize the conceptual framework were,

1. to investigate differences in the extent of faculty support for distance education according to their familiarity with distance education, and selected professional characteristics;

2. to investigate how faculty understand the compatibility and feasibility of distance education, and 3. to compare faculty understandings of the compatibility and feasibility of distance education among those who are supportive of, opposed to or divided in their support for distance education.

The overall research question was, What factors determine faculty support for, indecision about, or opposition to distance education for degree credit and how do faculty understand the influence of these factors? The following six subquestions about the concepts in the framework indicate the specific answers needed to address the major question:

1. To what extent are faculty familiar with distance education?

2. How does faculty familiarity with distance education differ according to selected professional characteristics?

3. To what extent do faculty support distance education?

4. How does faculty support for distance education differ according to faculty familiarity with distance education and according to selected professional characteristics?

5. How do faculty who are supportive of, opposed to, or divided in their support for distance education understand the compatibility and feasibility of distance education?

6. What are the differences in faculty understandings of the compatibility and feasibility of distance education amongst those faculty who are supportive of, opposed to, or divided in their support for distance education?

Summary

The conceptual framework that guided data collection and analysis in this study consisted of five concepts and the logical relationships among them. The concepts were selected on the basis of the literature review and personal experience that indicated their potential usefulness for understanding and explaining why some faculty support distance education while others do not. The framework was considered exploratory because it was based on limited empirical or theoretical work. Using the conceptual framework as a point of reference, three research objectives, one overall research question and six subquestions provided specific direction for the study. The research design and procedures that were used to answer the research questions, plus the delimitations and assumptions of the study, are presented in

the next chapter.

CHAPTER 4

RESEARCH DESIGN AND PROCEDURES

The purpose of this chapter is to describe the research design and procedures used to address the research questions. The description covers, in sequence, the research design, the assumptions of the study, the research site, data collection, and analysis.

The Research Design

The research design for the study combined quantitative and qualitative methods of investigation. While there is extensive debate about the compatibility of different research traditions many contend that quantitative and qualitative approaches are complementary and can be usefully combined for the study of human subjects (Borg & Gall, 1989; Bryman, 1988; Firestone, 1987; Hakim, 1987; Howe, 1985; Jick, 1979; Patton, 1980; Rossman & Wilson, 1985; Soltis, 1984). Advocating an eclectic approach, Shulman (1988, p. 16) states that "the best research programs will reflect intelligent deployment of a diversity of research methods applied to their appropriate research questions." Furthermore, some authors claim that quantitative and qualitative methods can be combined "on solid epistemological ground" (Howe, 1985, p. 16), to corroborate, extend, and enhance research findings (Bryman, 1988; Burgess, 1984; Firestone, 1987; Hakim, 1987; Jick, 1979; Patton, 1980; Rossman & Wilson, 1985). This belief guided the research design for the study.

The research was conducted in two phases. The first phase involved a mail questionnaire survey. The second phase consisted of face-to-face, semi-structured faculty interviews. Each phase addressed different aspects of the conceptual framework. As Figure 4.1 illustrates, the survey investigated three concepts: 1. the extent of support; 2. familiarity, and 3. professional characteristics. The faculty interviews investigated the concepts of compatibility and feasibility.

Figure 4.1 Aspects of the Conceptual Framework Addressed in each Phase of the Study

Phase 2: Interviews   Phase 1: Survey

Compatibility
- Accessibility
- Quality

Familiarity

Extent of Faculty Support for Distance Education

Feasibility
- Resources
- Institutional Support
- Personal Impact

Professional Characteristics

The survey results were used to select a sample of faculty for interviews during the second phase of the research. Quantitative methods may facilitate qualitative research "in the judicious selection of cases for further study" (Bryman, 1988, p. 136). The study presupposed that the reasons for variations in faculty support for distance education were based on faculty interpretations of situational factors related to the compatibility and feasibility of distance education. Therefore, an interpretive approach using interviews with faculty was appropriate

to address the research questions about how faculty understand these factors. The importance of exploring faculty perceptions is based on the assumption "that people act on their interpretation of the situations they find themselves in rather than on the objective, matter-of-fact characteristics of situations" (Saljo, 1988, p. 36).

Assumptions of the Study

The study assumes that people behave on the basis of how they interpret situations and that individuals are the acting units in society (Blumer, 1969). It assumes that faculty act with considerable autonomy regarding their views about and approaches to different educational methods (Becher and Kogan, 1982; Clark, 1987). Further, it assumes that faculty who may not be familiar with distance education have opinions about the concept and may, through the faculty committee and senate structures of university self-governance, be in a position to vote on proposals for distance education (Lindquist, 1974). The research also assumes that faculty are aware of and will accurately report their views about distance education. The researcher assumes that distance education is a viable educational delivery method.

The Research Site

The study was conducted at the University of British Columbia (UBC). This site was considered appropriate because UBC is one of the oldest and largest conventional universities in Canada. Although UBC has offered distance education courses for 40 years, the researcher had heard unofficial accounts of faculty controversy regarding distance education. Furthermore, the accessibility of higher education and the role that distance education could play in that regard were concerns in the Province of British Columbia (Province of British Columbia, 1988). Convenience and geographic access to UBC also influenced the choice of this setting.

The University of British Columbia is committed to providing "instruction, research and public service that contributes to the economic, social and cultural progress of the people of British Columbia and Canada" (The University of British Columbia, 1989a). The University of British Columbia was one of the first universities in Canada to offer distance education by starting correspondence courses in 1949. Since then, UBC has enlarged its distance education offerings, and there have been extensive developments provincially, exemplified by the establishment of the distance teaching Open Learning Institute in 1978 (Mugridge, 1986). Distance education courses for degree credit are also offered by Simon Fraser University, The University of Victoria, the Open University and the Open College of the Open Learning Agency, and most community colleges in British Columbia.

The University of British Columbia is the oldest and the largest of the three universities in British Columbia, and it was the only public university in the province of British Columbia until the 1960s. The first students enroled in 1915 making UBC one of the oldest universities in Canada and it is now the third largest in the country (The University of British Columbia, 1989a).

A Division of Guided Independent Study was established at UBC (also called UBC Access Guided Independent Study) to design, produce, and deliver distance education in conjunction with the academic departments. Since 1970, newer communication technologies and a greater variety of learning activities, such as telephone conferences, audiotapes, and television broadcasts, have been incorporated into the print-based courses. Students can use a free telephone service to contact tutors and the Extension Library. Course packages are designed by a team and the students are tutored by qualified faculty.

UBC currently offers distance education courses in Agricultural Sciences, Arts, Education, Forestry, and Nursing. The degree credit offerings carry full credit toward degree programs in accordance with the requirements of the Faculty concerned. However, academic regulations

at UBC restrict the number of distance education courses that can be credited towards an undergraduate degree to one-third to one-half of the required academic courses (1991/92 Calendar, UBC). With prior written approval, a maximum of three distance courses may be credited towards a graduate degree the (UBC Access Guided Independent Study, 1990-91). Distance courses at UBC enrol primarily part-time adult students who are employed full-time. In 1990/91, sixty-eight degree credit courses were offered with a total enrolment of 2,149 students.

Phase One: The Survey

The first phase of the study used a mailed survey to investigate differences in the extent of faculty support for distance education according to familiarity with distance education, and selected professional characteristics. Additionally, the results of the survey became the basis for the second phase of the study by providing a way to categorize the respondents as supportive of, opposed to, or divided in their support for distance education.

The survey addressed four of the research questions:

1. To what extent are faculty familiar with distance education?

2. How does faculty familiarity with distance education differ according to selected professional characteristics?

3. To what extent do faculty support distance education?

4. How does faculty support for distance education differ according to faculty familiarity with distance education and according to selected professional characteristics?

Instrument Development

A faculty self-report questionnaire with Likert-type response scales was designed for data collection. The Faculty Support for Distance Education questionnaire is provided in Appendix A.

The items on the questionnaire were arranged in three parts which addressed the concepts of familiarity, support, and professional characteristics, respectively.

Part 1: Familiarity with Distance Education

The questions in this part further specified and expanded upon questions on familiarity used in other studies (Johnson, 1978; Rishante, 1985; Stinehart, 1987). Familiarity is the extent to which faculty report that they are aware of and involved in distance education. Therefore, this part had an item about awareness and one about involvement. Each item had several questions with three response categories: 1. Not At All; 2. To Some Extent; 3. A Great Deal. The awareness item asked faculty about the extent to which they had heard and read about distance education, and the extent to which they had discussed and debated distance education with other faculty. The involvement item asked about the extent of personal involvement in the planning, teaching, and/or administration of distance education courses for degree credit, and their involvement as a student in such courses.

Part 2: Your Views about Distance Education

The second part of the questionnaire was designed to measure the extent of faculty support for distance education. Support was defined as how faculty would likely speak about and vote for distance education courses for degree credit. Each of the items had five Likert-type response categories representing positive to negative attitudes or projected behaviours regarding distance education.

The first item in Part 2 asked faculty how they would describe their overall attitude towards distance education courses for degree credit and the second item asked faculty how they would likely speak about such courses in faculty meetings. Although opinions vary in the literature about the link between expressed attitudes and behaviour, attitude is defined here

as an inclination to act favourably or unfavourably toward an object or situation (Allport, 1967; Anderson, 1988). The attitude item assumes that faculty are aware of their attitudes and will report them accurately. The purpose of the attitude question was to get an indication of how faculty were inclined to act towards distance education. These data were used to triangulate or cross-check responses to the questions about support. Jick (1979, p. 603) calls this type of data triangulation a "within-methods strategy for testing reliability" and convergent validation.

The third item in Part 2 consisted of four questions regarding how faculty would likely vote in a faculty meeting for a proposal about distance education offerings. It asked about faculty votes for courses and programs by distance education at both the undergraduate and graduate levels, respectively. The last item asked for the reason for their responses to the voting questions at the undergraduate and graduate levels.

Part 3: Your Teaching and Research Interests

The third and last section of the questionnaire asked about faculty teaching and research interests to obtain data about these professional characteristics. The first question asked about the respondents' involvement in teaching and research and whether their interests were primarily in teaching or research, or in both equally. These questions were adapted from those used by Halsey and Trow (1971) and Ladd and Lipset (1975). Two questions asked faculty involved in research to locate their research on a "hard-soft" and on a "pure-applied" seven point continuum. These questions provided a cross check on how faculty classified their research versus how the literature would place them in the Biglan disciplinary classifications used for the study (Biglan, 1973a). The questions were adapted from those used in the Ladd and Lipset (1975) survey.

A letter from the dissertation committee (Appendix B) introduced the study and a cover letter

from the researcher (Appendix C) stated its purposes and described how the information would be used. An explanatory note on distance education accompanied the questionnaire. The role of the explanatory note (Appendix D) was purely informative and it was restricted to defining and describing distance education at UBC. It provided standard information for faculty responses. This technique was found necessary and useful in a faculty survey on distance education by Rishante (1985). The explanatory note was developed in conjunction with the division of UBC responsible for distance education, Guided Independent Study, and it was pilot tested for clarity along with the questionnaire.

Validity and Reliability

The usefulness of a questionnaire depends upon its ability to measure what it purports to measure (validity) and its ability to yield consistent results (reliability). Validity and reliability were considered when the questionnaire was developed, pretested, and revised in three stages from February to September, 1990. Reliability and validity were also checked by a review of subjects' questionnaire responses at the beginning of faculty interviews. The interview procedure is described later in this chapter, under the second phase of the study, and the results of the questionnaire review are given in Chapter 6 as part of the interview results.

In the first stage of instrument development, a Likert-type questionnaire on familiarity with and support for distance education, plus the explanatory note on distance education, were designed and pretested with thirty graduate students and faculty in education. Several revisions were made to clarify the wording of items and several attitude items were deleted because they appeared to be redundant.

The second stage of development consisted of two steps. First, two faculty with expertise in questionnaire design were consulted. They reviewed the purpose of each questionnaire item

in relation to the research objectives and the conceptual framework for the study. The items were reviewed for face and content validity and revisions were made to clarify the wording and to specify the questions. Major revisions were made to Part 3 of the questionnaire to adapt items used in other surveys (Halsey and Trow, 1971; Ladd and Lipset, 1975). Next, the revised questionnaire and explanatory note were pretested with ten faculty involved in the management of distance education at UBC. Verbal feedback was obtained in person or by telephone regarding the appropriateness and clarity of the questions, terminology, and explanations. Minor wording changes were then made in several questions and in the explanatory note on distance education. The revisions also incorporated suggestions from members of the dissertation committee who reviewed the questionnaire at this stage for face and content validity, as well as for clarity of presentation. The questionnaire format was revised and arranged on one seven by fourteen inch page.

In the third stage of development, the questionnaire, together with the cover letter and explanatory note, were pretested with a net sample of 14 full-time faculty members at UBC selected from each of the four disciplinary groupings used in the study, as noted in Table 4.1. Faculty were contacted by telephone at random from the UBC telephone directory and asked to participate in the pretest. Two faculty declined. The survey was sent to 16 faculty by campus mail along with a note outlining the type of feedback requested (Appendix E). Several days later, the researcher contacted the subjects by telephone or in person, and obtained feedback from 14 faculty. Following this pretest, the voting items in the second part of the questionnaire were revised to give more variation in responses and to clarify the voting questions in terms of courses or programs at the undergraduate and graduate levels. The final questionnaire was printed in a pink colour to facilitate reference to it during telephone follow-up procedures.

Table 4.1. Faculty Participating in the Survey Pretest by Department

Disciplinary Classification	Departments	Total
Hard, Pure	Physics, Chemistry, Microbiology, Astronomy/Geophysics	4
Hard, Applied	Medicine, Engineering, Computer Science	3
Soft, Pure	English, History, Political Science, Sociology	4
Soft, Applied	Education, Nursing, Law	3
	Total	14

Population and Sample

The target population for this study consisted of the 1,672 full-time faculty at the University of British Columbia (UBC) at the rank of assistant professor and higher. This excluded sessional, visiting, and part-time faculty, as well as the 115 instructors and lecturers. It also excluded faculty with administrative roles classified as "Dean's Office" in the UBC faculty information system data base (UBC, 1989b). Additionally, the 14 faculty in graduate studies, which includes institutes and research centres devoted primarily to research, were excluded. Information about the population was obtained from the UBC faculty system data base. The sample was selected from the August 31, 1990 faculty data base.

The disciplinary classification developed by Biglan (1973a, 1973b) and adapted by Becher (1989) for the study of academic culture was used to allow for possible comparisons with other studies. Most studies of university faculty use the disciplinary groupings that exist within the institution where the study was conducted. Hence, the groupings differ from

institution to institution and often represent groupings of administrative convenience rather than disciplinary commonalities. The Biglan classification is a widely used and validated method of grouping disciplines according to similarities in subject matter and research styles (Becher, 1987; Creswell and Bean, 1981; Malaney, 1986; Smart and Elton, 1975, 1982). It provides a conceptual approach "to guide systematic investigation of diversity in faculty activities and attitudes" and takes the findings beyond description
(Smart and Elton, 1982, p. 214-215).

The disciplines at UBC were placed in each of the four disciplinary classifications (see Appendix F) according to those categorized by Biglan (1973) and by Malaney (1986) who categorized additional disciplines using the Biglan approach. The hard/soft aspect refers to the degree to which a clearly delineated paradigm exists and pure/applied refers to the extent of concern with the practical application of the subject matter. The population by the four disciplinary classifications and by gender is given in Table 4.2.

Table 4.2. Full-time UBC Faculty at the Rank of Assistant Professor and Above, August 31, 1990.

Classification	Male	Female	Total
Hard, Pure	234	12	245
Hard, Applied	574	93	667
Soft, Pure	325	76	401
Soft, Applied	266	92	358
Totals	1,399	273	1,672

The main goal of the sampling procedure was to enable comparisons between subgroups and to obtain adequate numbers for statistical analysis in each subgroup (Kish, 1965; Sudman, 1976). Analysis was required by discipline and gender because the literature indicated that

these variables may be related to faculty support for distance education. Hence, they were included under professional characteristics in the conceptual framework.

A stratified random sampling procedure was used to select male faculty from the four disciplinary classifications of Hard, Pure (Natural Sciences), Hard, Applied (Professional Sciences), Soft, Pure (Arts), and Soft, Applied (Professional Arts). The male sample was selected from the UBC faculty data base using a computerized table of random numbers. A census of the female faculty was conducted because there were insufficient female faculty to allow for comparisons by gender if a sampling procedure was used. Table 4.3 shows the sample by discipline and gender. Sudman (1976, p. 30-47) claims that "the adequacy of the sample depends on the details of the analysis" and that the solution to small samples is not merely to discuss their limitations but "to oversample critical groups that otherwise would be underrepresented." A large sample was also chosen to obtain sufficient numbers for analysis in the event of a low response rate. Several faculty who were familiar with survey response rates, and with the usual faculty response at UBC, advised that the response rate could be 30 to 50%. (In fact, a 73% return rate was realized in this study.)

Table 4.3. Survey Sample by Disciplinary Classification and by Gender with Percentage for Each Subgroup in the Sample.

Classification	Male n= (%)	Female n= (%)	Total n= (%)
Hard, Pure	99 (42%)	12 (100%)	111 (45%)
Hard, Applied	149 (26%)	93 (100%)	242 (36%)
Soft, Pure	100 (31%)	74 (97.4%)	174 (43%)
Soft, Applied	95 (36%)	91 (98.9%)	186 (52%)
Totals	443 (32%)	270 (99.3%)	713 (42.7%)

Data Collection Procedures

Following approval of the study by the UBC Behavioural Sciences Screening Committee for Research and Other Studies Involving Human Subjects, the questionnaires were distributed to faculty on September 21, 1990 by campus mail. An addressed return envelope was included.

Each subject was given a number code which was written in the upper right corner of each questionnaire before distribution to protect the confidentiality of the responses. A separate list of subject names was kept for follow-up purposes. A second mailing, followed by telephone contact was used in this survey. A combination of mail and telephone follow-up can significantly increase response rates, but more than three follow-ups have not been found to yield much increase (Borg & Gall, 1989, p. 442). Telephone follow-up was found useful in Johnson's (1978) faculty survey.

A second mailing was sent to all subjects who did not return the completed questionnaire within three weeks. It contained an additional brief cover letter from the researcher requesting participation (see Appendix G). Two weeks later, subjects who had not returned questionnaires were telephoned to ask if they had received the questionnaire and to indicate that their participation would still be useful to the study. When it was not possible to contact the subject in person by telephone, a message was left on either an answering machine or with office staff. Care was taken not to violate the right of subjects to refuse to participate in the study. When faculty declined participation, the reasons were recorded whenever this information was spontaneously volunteered. The majority of faculty stated that lack of time was their reason for non-participation and a few stated that they lacked information about the topic.

Data Analysis

The survey yielded nominal and ordinal data that divided faculty into various groupings according to their familiarity with and their support for distance education, and according to their teaching and research interests. The data from all returns were coded and entered into a computer data base for retrieval and statistical analysis using the Statistical Package for the Social Sciences (SPSS-X). Data coding and entry were both checked by a second person for accuracy, and detected errors were corrected.

The results are displayed in tabular and graphic form in Chapter 5. The chi-square test of association for categorical data and the Spearman correlation for ordinal data were used as appropriate nonparametric statistical tests (Siegel & Castellan, 1988). The 0.01 level of significance was selected as sufficiently rigourous to signify results that have practical importance as well as statistical significance (Siegel & Castellan, 1988). Responses to the open comment question on the reasons for faculty votes on distance education were coded according to the indicators in the conceptual framework and reported by frequency and proportions.

Phase Two: Faculty Interviews

The second phase of the research used the survey findings to select faculty for interviews to determine how faculty understand the compatibility and feasibility of distance education. As previously stated, compatibility is the perceived congruence of distance education with the beliefs and values of the individual about accessibility to and the quality of university education, while feasibility is the perceived ability to successfully implement distance education. The faculty interviews addressed two of the research questions:

1. How do faculty who are supportive of, opposed to, or divided in their support for distance education understand the compatibility and feasibility of distance education?

2. What are the differences in faculty understandings of the compatibility and feasibility of distance education amongst those faculty who are supportive of, opposed to, or divided in their support for distance education?

The Interview Design

This phase of the study used the researcher as the instrument for data collection through semi-structured, face-to-face interviews. All interviews were based on two things: 1. a review of faculty responses to the familiarity and support parts of the survey, and 2. a set of eighteen interview questions about the compatibility and feasibility of distance education. The interview questions were developed to elicit faculty perceptions about each of the indicators identified in the conceptual framework for compatibility and feasibility as described in Chapter 3. These indicators were based on the literature and on the researcher's experience in university distance education.

Under the concept of compatibility, seven questions were designed to investigate faculty beliefs and values about how accessible higher education should be and about the quality of education in relation to distance education. Under the concept of feasibility, eleven questions were designed to explore how faculty viewed the practicalities of implementing distance education in terms of the resources and institutional support required and in terms of the personal impact of distance teaching for faculty. The interview questions were pilot tested, as described below, and the final list of questions is shown in Table 4.4.

Faculty on the dissertation committee reviewed the initial set of interview questions for clarity and for consistency with the research objectives and the conceptual framework for the study. The questions were revised to be more concise and to show their relationship to the concepts of compatibility and feasibility. Several questions were reworded to ensure that they asked for the personal perceptions of the faculty being interviewed. It was recognized that

faculty might not be able to immediately provide responses to some of the interview questions in cases where their familiarity with distance education was low and they had not thought about the practicalities of implementation. This could be determined by the initial review of faculty responses on the survey questionnaire and the interview could then be adjusted accordingly.

A pilot testing of the interview procedure and questions was planned for the first three to five faculty interviewed. However, only one revision was made following the first interview so these were the only interview data not used in the sample for analysis. The revision made was the addition of a more general question about accessibility, "How accessible do you believe higher education should be to people?" The first interviews confirmed that faculty would not likely have responses for all the questions under feasibility and that it was possible to allow for this in a semi-structured interview approach. The first interviews also revealed the importance of reviewing faculty responses on the questionnaire at the beginning of the interview.

Table 4.4. Interview Questions to Explore How Faculty Understand the Compatibility and Feasibility of Distance Education.

Compatibility	
Indicator	Interview Questions
Accessibility	How accessible do you believe higher education should be to people? How open or selective should universities be to students? What, if anything, do you believe universities should be doing for adult, part-time students?
Quality	What views do you hold about the quality of university education that are important to your position on distance education, such as the calibre of students? The quality of teaching materials? Communication with students? The importance of experience on a university campus?

Feasibility	
Indicator	Interview Questions
Resources	What influence does the availability of resources have on your support for distance education, in terms of costs? Of technology? Of library services? Of faculty and support personnel?
Institutional Support	What factors in the university as an organization affect your support for distance education, such as the reward system for teaching and research? Academic rules and regulations about student admission and transfer credits? The extent to which other faculty support distance education? The leadership of administrators?
Personal Impact	How do you envision distance education affecting you personally, in terms of the adjustments necessary for distance teaching? Of workload? Of satisfactions and benefits involved in distance teaching?

The Interview Sample

Sampling procedures in interpretive research deliberately seek out and include people that are expected to reveal different interpretations of a situation (Borg & Gall, 1989; Hakim, 1987; Miles & Huberman, 1984; Patton, 1980; Strauss, 1987). This study used the type of purposeful sampling Patton (1980, p. 105) calls maximum variation sampling which involves picking cases that represent a range on a dimension. The selection of subjects from groups known to vary on certain dimensions and the deliberate selection of respondents expected to hold contrasting views provide a check on representativeness of the sample and a safeguard against sample bias (Miles & Huberman, 1984, p. 232). The extent of support for distance education was the dimension used in this study and faculty were selected from each of the three categories of support for distance education as established by the survey: 1. Supportive; 2. Divided Support; 3. Opposed. Chapter 5 describes the details of how the subjects were placed in these categories based on their responses to the survey. Table 4.5 shows the numbers interviewed by category of support, disciplinary grouping, and gender. Table 4.6 provides the departments of faculty interviewed in each disciplinary grouping.

Table 4.5. Faculty Interviewed (n=50) by Extent of Support for Distance Education by Disciplinary Classification and by Gender

| Extent of Support | Disciplinary Classification | | | | Gender | | |
	Hard Pure	Hard Applied	Soft Pure	Soft Applied	Female	Male	Totals
Supportive	0	4	5	5	5	9	14
Opposed	5	4	3	2	5	10	14
Divided	7	5	6	4	11	10	22
Totals	12	13	14	11	21	29	50

Table 4.6. Faculty Interviewed by Departments in Four Disciplinary Classification Groups

Disciplinary Classification	Departments of Faculty Interviewed
Hard, Pure	Biochemistry, Botany (2), Chemistry (2), Geophysics and Astronomy, Mathematics, Oceanography, Physics (2), Zoology (2).
Hard, Applied	Dentistry, Engineering, Pharmaceutical Science, Family and Nutritional Sciences, Medicine (9 faculty from 5 departments: Pathology (4), Surgery (2), Rehabilitation Medicine, Medical Microbiology, Psychiatry.
Soft, Pure	Anthropology and Sociology (2), Classics, Creative Writing, English, Fine Arts, Geography, Germanic Studies, Library and Archival Science, Music, Philosophy, Political Science, Psychology, Theatre.
Soft, Applied	Commerce (3), Economics, Education (3), Law (2), Nursing, Social Work

Note. The number of faculty interviewed in one department is noted in parentheses in cases where more than one person in the department was interviewed.

The code numbers for the subjects in each of the three categories of support for distance education were listed and a sample from each was selected to represent each of the four disciplinary classifications by gender where possible. The subjects were mailed a letter of explanation for the interview phase of the study (Appendix H). They were asked to indicate, on a consent form (Appendix I), whether or not they were willing to participate. An envelope addressed to the researcher was included for return of the consent form. The researcher arranged interviews by telephone with the faculty who were willing to participate.

Data Collection

The subjects were interviewed between January and April, 1991. Each subject (n=50) was

interviewed in her or his office for approximately one hour. (The interviews ranged from 30 to 90 minutes and the average was 65 minutes.) All interviews were recorded on audiotape. Tape recording is a safeguard against reliance on incomplete notes and against inadvertently changing the respondent's exact words (Patton, 1980, p. 247). The researcher introduced the purpose of the interview and gave subjects a copy of their signed consent form at the beginning of the interview. Subjects were asked if they had any questions and if they agreed to have the conversation recorded. Confidentiality measures were reviewed and it was noted that audiotapes were identified only by subject number.

Interviews began with a review of subjects' responses on the first two parts of the survey questionnaire. Subjects were asked to describe where and how they became familiar with distance education and their responses to the support questions were reviewed. This provided a check on the reliability and validity of the questionnaire results and verified the extent of support each respondent gave to distance education. A fundamental principle of research interviews is "to provide a framework within which respondents can express their own understandings in their own terms" (Patton, 1980, p. 205). Therefore, the interview questions proceeded with an exploration of the reasons subjects gave on the questionnaire for their responses on how they would likely vote for distance education proposals. The interview first asked about their stated reasons for their propensity to vote one way or the other and then proceeded to the other questions. With only a few exceptions, the interview began with the questions about compatibility and ended with questions about the feasibility of distance education. Whenever subjects did not have comments on the questions about feasibility, the researcher indicated that this was acceptable.

During the interview the researcher periodically paraphrased subjects' responses to check that the responses were understood as the subject intended. Two methods were used to explore responses and to allow the introduction of unanticipated topics. First, the response to each initial question on the list of interview questions was explored by using probes to obtain

elaboration. The probes sometimes asked for definition of their terms, and clarification about the reasons behind their statements (Patton, 1980, p. 238). Secondly, all subjects were asked at the end of the interview if there were any other issues or factors, not discussed in the interview thus far, that influenced their support or lack of support for distance education. Any topics introduced in response to this final question were discussed. At the end of the interview, the researcher reiterated that a summary of the interview conversation, prepared from the audiotaped recording, would be mailed to subjects for review and that changes could be made if they believed that the summary did not accurately represent their views about distance education.

Data Analysis

Preparation of the interview summaries for verification by subjects constituted the first stage of data reduction, which was the initial stage of data analysis (Miles & Huberman, 1984; Strauss, 1987). The preparation time for one interview summary averaged eight hours. First, the researcher listened to each audiotape and made detailed notes or transcriptions of the subjects' responses. The corresponding number locations on the audiotape for responses were recorded for later reference and in order to verify any direct quotations later used.

A draft interview summary was typed in the topic sequence of the interview. Each summary consisted of, 1. paraphrased statements of subjects' responses to the interview questions, using the subjects' key words or phases whenever possible, and 2. verbatim statements (italicized) from the audio recording of the interview. At this stage, care was taken to use the language and intended meaning of subjects as summary data, instead of the researcher's interpretations of the data. Another person then checked each direct quotation in the draft summary with the audiotape for exactness and validity of the paraphrased context. After the resulting corrections were made, the final summary was written with the data organized under three headings related to the conceptual framework for the study: accessibility, quality,

and feasibility. Indicators of the compatibility of distance education, under accessibility and quality, formed the most extensive discussions in each interview. Indicators of feasibility received fewer comments and thus were grouped under the one concept. The introduction to the summaries contained paraphrased statements about subject familiarity with distance education. Appendix J contains a sample of nine interview summaries, three for each of the three categories of faculty support for distance education: supportive, divided support, and opposed.

The interview summaries were mailed to subjects in July 1991 along with a cover letter (Appendix K) asking subjects to review them and to forward any desired revisions in the return envelope by September 20, 1991. Ten subjects returned their interview summaries and six of them requested modifications. (Four stated that the summaries represented their views correctly.) Four requested editorial comments that clarified a point. One asked for modifications to soften the following statement: "Different teaching methods never show different results." It was changed to "Different teaching methods rarely show significantly different results." One subject noted numerous editorial and emphasis changes, many of which were in the verbatim quotes from the audiotape. However, the changes did not alter the meaning of the responses and, if anything, emphasized the opposition the subject took on distance education. Therefore, all the changes were made as the subject indicated.

Following initial data reduction, data analysis consisted of descriptive and comparative stages. First, a descriptive analysis was used to determine how faculty in the three groups of support for distance education understood its compatibility and feasibility. Secondly, a comparative analysis looked at the similarities and differences between these understandings for the three groups. This provided an account of the different conceptions faculty held about distance education and how this affected their support for distance education. The analysis used the guide-lines and rules of thumb identified by Strauss (1987) for qualitative data analysis.

Generally, the descriptive analyses gives a feeling for the views of the respondents, and the presentation of raw data and summary tables allows one to see the kind and frequency of the actual data that was interpreted to answer the research questions. The analysis involved coding and counting the data according to the indicators contained in the conceptual framework for the study, supplemented by any additional indicators that became evident from the raw data.

The number of subjects who expressed a certain view or theme related to a concept were counted to establish, whenever possible, the understanding held by the majority of the respondents in a group. The counting helped shape meaning for the combined perceptions of a group according to the extent of their support for distance education and gave a quantitative context for the findings. It also helped the researcher remain objective about the meaning of the data and helped to prevent one possibly well-articulated and/or poignant view from overshadowing the others.

The descriptive analyses revealed that faculty understandings for several of the indicators established for the concepts of compatibility and feasibility did not show any distinct patterns of variation according to the extent of faculty support for distance education. Faculty understandings for these indicators were described and they were then excluded from the comparative analyses.

Emerging themes and patterns were identified and labeled to establish and convey meaning from the data, and to provide conceptual coherence by grouping particulars under more general concepts (Miles & Huberman, 1984, p. 223). Theoretical memos about possible meaning of the patterns were recorded as the analysis proceeded. Descriptive matrices and writing were used as integrative mechanisms (Bogdan & Biklen, 1982; Miles & Huberman, 1984; Strauss, 1987). Speculations about relationships between faculty understandings of compatibility and

feasibility and the extent of their support for distance education were then examined until a pattern of relationships was conceptualized.

Trustworthiness

The four criteria for judging the trustworthiness of qualitative studies, credibility, dependability, confirmability, and transferability (Guba & Lincoln, 1989) are applicable to this research. Credibility deals with the truth value of the research and concerns the match between the views of the respondents and how well they are represented or reconstructed by the research conclusions (Guba & Lincoln, 1989, p. 237). Credibility of the interview data was ensured by the researcher returning the interview summaries to all subjects for verification.

Interpretive research should allow outsiders to track the research process and the raw data used to arrive at the conclusions. Dependability is evidenced by records of the process that was followed in data collection and analysis as described earlier. The researcher's files for each subject interviewed, audiotapes of the interviews, analysis charts, and notes are available for inspection.

Confirmability refers to evidence of raw data that support the results. The raw data excerpts given to illustrate the findings in and the sample of interview summaries in Appendix J should allow others to check that the interpretations and conclusions are "rooted in the data themselves" and are not a reflection of researcher imagination or bias (Guba & Lincoln, 1989, p. 243).

Interpretive research is concerned with transferability rather than generalizability of findings (Lincoln & Guba, 1989; Stake, 1978). Transferability concerns the applicability of the findings to other settings; it involves generalizing to similar cases rather than to a population of cases

(Stake, 1978, p. 7). The responsibility of the researcher regarding transferability is to provide sufficient detail for others to decide if the findings are applicable to them. Therefore, the study context and sample were described earlier in this chapter and samples of the data (interview summaries and data excerpts in the text) are presented to illustrate how the conclusions were derived.

Summary

An interpretive research perspective dominated this study, although both quantitative and qualitative methods were used to address the research questions about faculty support for distance education. The study was concerned with the transferability rather than the generalizability of findings. This chapter described the research site, identified assumptions of the research, and described the survey and interview phases of the study.

A questionnaire was designed to measure the extent of faculty support for and familiarity with distance education, and to collect data about the teaching and research interests of the subjects. The purposes of the survey were to investigate differences in the extent of faculty support for distance education according to faculty familiarity with distance education, and selected professional characteristics. The survey results were also intended to provide a means of selecting a purposive sample of faculty to interview in the second phase of the study.

The interview phase of the study explored the reasons for responses faculty made to the survey questionnaire items and investigated how faculty understood the compatibility and feasibility of distance education. The data were systematically recorded and analyzed according to the conventions of qualitative research methods.

The next four chapters present the findings of the study. Chapter 5 presents the survey findings. Chapter 6 introduces the results of the faculty interviews and describes faculty perceptions of indicators that did not vary according to the extent of their support for distance education. Chapter 7 describes faculty understandings of the indicators of the compatibility and feasibility of distance education that varied according to the extent of faculty support for distance education. Chapter 8 presents the comparative analysis for the three groups of support for distance education and the different conceptions of distance education held by faculty.

CHAPTER 5

THE SURVEY RESULTS

This chapter presents the results of the mailed survey of faculty at the University of British Columbia. The survey investigated differences among the extent of faculty support for distance education, familiarity with distance education, and selected professional characteristics. The response rate and characteristics of the responding sample are presented first. Then the findings are given for each research question addressed by the survey. The method devised for categorizing the respondents as supportive of, opposed to, or divided in their support for distance education is described. This categorisation of the respondents served as the basis for selecting a sample of faculty for interviews to investigate further the reasons for variations in their support for distance education.

Response Rate to the Survey

The questionnaire was distributed by campus mail in September 1990 to 713 faculty, at the rank of assistant professor or higher. There were forty-three undeliverable questionnaires because faculty were on leave or had moved. This left a net sample of 670 faculty, 254 women and 416 men. The return rate for the net sample was 72.7% with 487 responses from 200 women and 287 men as shown in Table 5.1 The respondents were from 81 of the 84 departments at UBC (see Appendix F). There were no respondents from religious studies and from the medical departments of anaesthesiology and orthopaedics.

Five additional responses were unusable. Two respondents cut the number code from their questionnaire making it unusable for full data analysis. Both of these respondents were opposed to distance education. Three questionnaires were returned during 1991 after the final December 31, 1990 cut off date for returns.

Table 5.1. Respondents (n=487) by Disciplinary Classification and by Gender

Classification	Male	Female	Total
Hard, Pure	58	8	66
Hard, Applied	101	77	178
Soft, Pure	66	50	116
Soft, Applied	62	65	127
Totals	287	200	487

Follow-up procedures for the survey consisted of a second mailing and a telephone call. Table 5.2 shows the returns following each mailing and the telephone call. The response rate for females was consistently higher for all subgroups than for males, with an overall response rate of 78.7% for females and 68.9% for males.

Table 5.2. Survey Response Rate for First Mailing and Follow -up Contacts.

	First Mailing	Second Mailing	Telephone Call	Totals
Number of Responses	309	144	34	487
Percentage of Net Sample (n=670)	46.2%	21.5%	5.0%	72.8%
Percentage of All Returns (n=487)	63.5%	29.5%	7.0%	100%

Characteristics of the Sample

As described in Chapter 4, the survey sample of faculty was selected to allow for subgroup analysis by sex and by four disciplinary classifications. Generalizing findings to the total population based on a representative sample was not an aim of the study. The characteristics of the population, survey sample, and survey respondents for gender, rank, tenure status, and age are given in Appendix L. A census of the female faculty was used for the survey since only 16% (n= 273) of the population was female and a sample was unlikely to yield sufficient numbers for subgroup analysis by gender. There were slightly more respondents at the rank of assistant professor (n=179 or 36.8%) than at the ranks of associate professor (n=162 or 33.3%) or professor (n=146 or 30%). The majority of the respondents (n=313 or 64.3%) were tenured faculty. Ninety-six per cent of the respondents were involved in both teaching and research, but only 28% were interested in both equally. Approximately one half of them (n=243 or 50.7%) were more interested in research and 18% (n=86) were more interested in teaching.

The respondents were grouped into first and second returns to determine if those who responded most promptly to the survey differed from those who responded after follow-up procedures. The 309 respondents to the first mailing of the questionnaire made up the first returns group and the 178 respondents, from the second mailing and the telephone follow-up combined, made up the second returns group for analysis purposes. Faculty who responded in the first returns group tended to be more familiar with and supportive of distance education overall, although these differences were not statistically significant by chi-square analysis (see Table 5.3). The totals in Table 5.3 differ due to missing data in one or more of the questionnaire items in the categories analyzed.

Table 5.3. Time of Response to the Survey by Faculty Familiarity with and Support for Distance Education (DE) and by Teaching or Research Interests.

| | Time of Response | |
| | First Returns | Second Returns |
	n %	n %
Familiarity with DE:		
Low	117 (57%)	87 (43%)
Some	125 (65%)	67 (35%)
High	61 (74%)	22 (26%)
Chi-square=7.084; 2df; significance=0.029		
Category of Support for DE:		
Supportive	62 (67%)	30 (33%)
Divided	97 (66%)	50 (34%)
Opposed	71 (64.5%)	39 (35.5%)
Chi-square=0.181; 2df; significance=0.913		
Teaching and Research Interests:		
More in Teaching	58 (67%)	28 (33%)
More in Research	152 (63%)	91 (37%)
Both Equally	84 (62%)	51 (38%)
Chi-square=0.761; 2df; significance=0.684		

Familiarity with Distance Education

This section addresses two research questions on faculty familiarity with distance education. Chapter 4 described the ten survey questions on awareness of and involvement with distance education that were designed to measure faculty familiarity. Each item had three response categories: 1 = not at all; 2= to some extent; 3 = a great deal.

Extent of Familiarity

The first research question asked to what extent faculty were familiar with distance education. In general, faculty familiarity with distance education was low and their awareness was general and incidental in nature. Their sources of information were primarily word of mouth and from reading newspapers and magazines, rather than from discussions with other faculty or from reading scholarly journals. Figure 5.1 presents the proportion of respondents that selected each of the three response categories for the six questions on awareness.

Figure 5.1 Faculty Responses to Six Questions (See Appendix A) about Their Awareness of Distance Education.

Seventy percent (70%) of subjects had heard about distance education offered by UBC. More respondents (79%) had heard about distance education offered by other universities and colleges. Fifty-five percent (55%) had read about distance education generally in newspapers or magazines. Sixteen (16%) of respondents had read about distance education in scholarly journals. One third (33%) had discussed with other faculty UBC's role in providing distance education courses for degree credit and fewer (22%) had debated with other faculty

controversial issues regarding distance education.

Figure 5.2 shows faculty responses to the four items on involvement with distance education. Twenty percent (20%) had been personally involved in faculty committee decisions about distance education course offerings. Eighteen percent (18%) had prepared distance teaching materials and 15% had been involved in distance teaching by assisting, advising, or tutoring distance students. Six percent (6%) had been distance students themselves.

Figure 5.2. Faculty Responses to Four Questions (See Appendix A) About Their Involvement in Distance Education.

A familiarity score was computed for each respondent by summing the responses (1,2, or 3) to all ten questions. The potential range of familiarity scores was 10 to 30 and the actual range was 10 to 27. The scores were grouped into three categories representing low (10-12), some (13-16), and high (17-27) familiarity with distance education. Breaking points with an equal range of six points for each category were not used because 76% (n=365) of the scores fell in the 10 to 15 score range leaving insufficient numbers in the other categories for

meaningful comparative analysis. Using the uneven breaking points, forty-three per cent (n=204) of the respondents had low familiarity with distance education, 40% (n=192) had some familiarity, and 17% (n=83) were highly familiar (Total n= 479 due to missing data for eight respondents in one or more of the ten questions on familiarity). Low faculty familiarity with distance education was anticipated because of the relatively small numbers of faculty who are involved in distance teaching and because of similar findings in other distance education research (Johnson, 1978; Kirby & Garrison, 1990; Rishante, 1985).

Familiarity and Professional Characteristics

The second question addressed was how does faculty familiarity with distance education differ according to selected professional characteristics? The professional characteristics explored in the study were gender, research/teaching interests, disciplinary grouping, and research type. There were no statistically significant differences in familiarity with distance education by gender, by teaching and research interests, or by self-ratings of research type as pure or applied (see Table 5.4).

Table 5.4. Chi-square Analysis of Faculty Familiarity with Distance Education and Professional Characteristics.

	Familiarity		
Professional Characteristics	Chi-square	df	Significance
Gender	0.181	2	0.914
Discipline	36.80	6	0.000
Interests in Research or Teaching	8.14	4	0.087
Research Type			
Hard/Soft	16.45	4	0.0025
Pure/Applied	2.493	4	0.646

There were differences in familiarity with distance education by the disciplinary groupings and by the self-ratings of research type on a hard to soft dimension. Faculty in the soft, pure and soft, applied disciplines were more familiar with distance education.

Table 5.5. Familiarity with Distance Education by Disciplinary Classification.

	Familiarity with Distance Education			
Disciplinary	Low	Some	High	Totals
Classification	n %	n %	n %	n
Hard, Pure	27 (13%)	32 (17%)	7 (8%)	66
Hard, Applied	91 (45%)	73 (38%)	13 (16%)	177
Soft, Pure	40 (20%)	47 (24%)	23 (28%)	110
Soft, Applied	46 (22%)	40 (21%)	40 (48%)	126
Totals	204	192	83	479

Chi-square= 36.80; 6 df; significance = 0.000

Table 5.5 shows that 63 of the 83 (76%) faculty with high familiarity are in the soft, pure and soft, applied disciplinary groupings. This is what could be expected because the majority of distance education course offerings are in these disciplines. Figure 5.3 gives a graphic representation of familiarity with distance education by the four disciplinary classifications. Crosstabulations of familiarity scores and how faculty rated their research type showed that respondents who rated their research as hard were less familiar with distance education than those in the soft rating. There was no significant difference in familiarity by the pure and applied self-ratings.

Figure 5.3. Familiarity with Distance Education by Disciplinary Classification.

The respondents were placed in the above four disciplinary classifications (Hard, Pure; Hard, Applied; Soft, Pure, and Soft, Applied) based on the Biglan model (1973a) which was developed from faculty self-ratings. However, some disciplines have not been classified, notably the professional disciplines (Malaney, 1986). The questionnaire in this study included two self-rating items as a cross check on the validity of the Biglan classification. The two questions asked respondents to locate their research on a seven point continuum of hard to soft and of pure to applied. These items had the second highest rate of missing data at 5.7% (n=28) for the hard versus soft dimension and 4.1% (n=20) for the pure versus applied dimension (the open comment items had the highest rate of missing data). This may indicate that some respondents found the items ambiguous or irrelevant.

For analysis, the respondents were placed into three groups according to how they located their research as follows: 1. Hard or Pure= 1, 2, 3 on the seven point continuum; 2. Soft or Applied = 5, 6, 7, and 3. Mixed = 4. Table 5.6 gives the percentages of faculty responses on

each continuum according to how they would be classified by the Biglan model and shows that faculty self-ratings essentially confirm the hard, pure and hard, applied classifications. The soft, pure and soft, applied groups have a higher percentage of mixed ratings on each dimension along with less agreement with the Biglan classification. This could be explained by the notion that the soft disciplines have more varied, and less widely agreed upon research paradigms than the hard science disciplines. There may also be a tendency for more people to identify their research as "hard" because the traditional "hard" research may be considered superior to "soft" research (Firestone, 1987; Howe, 1985).

Table 5.6. Faculty Self-Ratings of Research Type as Hard versus Soft and Pure versus Applied by Biglan Disciplinary Classifications.

Biglan Classification	Faculty Self-Ratings	
	Hard/Soft Dimension	Pure/Applied Dimension
Hard, Pure	Hard =86%	Pure =72%
	Mixed =7%	Mixed = 13%
	Soft =7%	Applied = 15%
Hard, Applied	Hard =80%	Pure =15%
	Mixed =7%	Mixed =23%
	Soft = 13%	Applied =62%
Soft, Pure	Hard = 37%	Pure =60%
	Mixed = 19%	Mixed =11%
	Soft = 44%	Applied =29%
Soft, Applied	Hard = 39%	Pure = 22%
	Mixed = 21%	Mixed =27%
	Soft = 40%	Applied = 51%

The two disciplinary groups with the hard classification and the two with soft were combined in order to compare faculty self-ratings with how they were placed according to the Biglan

classification. The same was done for the pure and applied classifications. Figure 5.4 shows how faculty in the hard and soft Biglan classifications rated their research along the seven point hard to soft continuum and Figure 5.5 presents how faculty in the pure and applied Biglan classifications rated their research on the pure to applied continuum.

Figure 5.4. How Faculty in the Hard and Soft Biglan Groupings Rated Their Research Type on a Hard (1) to Soft (7) Continuum.

n=

On the hard/soft dimension faculty self-ratings were strikingly similar for the hard groups but the soft groups were spread out over the continuum (chi-square 119.39; df 6; significance 0.000).

Figure 5.5. How Faculty in the Pure and Applied Biglan Groupings Rated Their Research on a Pure (1) to Applied (7) Continuum.

The pure/applied dimension showed faculty self-ratings differentiated the groups similar to the Biglan classifications (chi-square 117.82; df 6; significance 0.000). Based on these results, the Biglan Disciplinary Classifications were considered a valid way to cluster respondents in order to investigate the influence of discipline on faculty support for distance education.

Support for Distance Education

This section addresses two research questions about faculty support for distance education. Support was defined as how faculty would likely speak about and vote for distance education courses for degree credit. The questionnaire item on how faculty would likely speak about

distance education (referred to for convenience as the "speaking" item) used a five point response scale as follows: 5 =very positively; 4 = positively; 3 = neutrally; 2 = negatively; 1 = very negatively. There were four questions about voting. They asked faculty how they would likely vote in a faculty meeting for a proposal to offer by distance education, 1. a course for undergraduate degree credit; 2. an undergraduate degree program; 3. a course for graduate degree credit; 4. a graduate degree program. Each question had a five point response scale: 5 = yes, definitely; 4 = yes, probably; 3 = abstain; 2 = no, probably; 1 = no, definitely.

Extent of Support

The first question asked to what extent do faculty support distance education. The majority (54%, n=262) of respondents would speak positively about distance education, and another one third (n=155) would speak neutrally, while a minority of 10% (n=49) respondents would speak negatively as shown in Figure 5.6 (missing data =21 or 4%).

Figure 5.6. Proportion of Respondents Who Would Speak Positively, Neutrally, and Negatively About Distance Education Courses for Degree Credit.

A parallel attitude item was used as a reliability check for the item on how faculty would likely speak about distance education courses for degree credit. It asked faculty how they would describe their overall attitude towards distance education. Attitude was defined as a propensity to act in a certain way and was expected to be highly correlated with how faculty would likely speak. Attitude and speaking were highly and positively related as shown in Figure 5.7 (Spearman rank correlation coefficient 0.84), therefore, these items were considered to measure the same thing and only the speaking item was analysed thereafter.

Figure 5.7. Association Between Faculty Attitude Towards Distance Education (DE) and How They Would Speak About DE.

The response categories for the questions were collapsed from a five to a three point scale (5 & 4= positive, 3= neutral, and 2 &1= negative) for analysis purposes and the results are given in Table 5.7.

Table 5.7. Faculty Overall Attitude Toward Distance Education (DE) and How They Would Likely Speak about DE (n=487).

	Positive		Neutral		Negative		Missing
	n	%	n	%	n	%	n
Attitude	280 (57%)		155 (32%)		40 (8%)		12
Speak	262 (54%)		155 (32%)		49 (10%)		21

Note. Spearman correlation 0.84 using a five point scale.

Voting for Distance Education

Just over three quarters of the respondents (78%) would likely vote in favour of a distance course for undergraduate degree credit. However, this was the only proposal that a majority would support. About 40% would likely vote for an undergraduate program or for a graduate course at a distance and very few (16%) would likely vote for graduate programs to be offered this way. Faculty responses to each of the four voting items on the questionnaire collapsed into a three point scale are shown in Table 5.8. Faculty votes suggested that their support for distance education was reserved and conditional. This finding concurs with the findings of previous studies of faculty attitudes towards university expansion (Adamson, 1976; Anwyl & Bowden, 1986). There was wide support for undergraduate distance courses, but favourable responses dropped off sharply thereafter and there was little favourable response for a graduate program by distance education. Johnson (1978) found that the majority of faculty were ambivalent, interested yet sceptical about an external graduate degree program which included distance education methods. The pattern found in this study was considerably more negative, particularly at the graduate level and few faculty (8-12%) indicated that they would abstain from voting, a response which would most likely indicate ambivalence.

Table 5.8. Faculty Votes for Proposals to Offer Distance Education Courses/Programs (n=487).

	Faculty Votes			
	Yes	Abstain	No	Missing
	n %	n %	n %	n
Undergraduate				
Course	380 (78%)	41 (8%)	49 (10%)	17
Program	200 (41%)	59 (12%)	209 (43%)	19
Graduate				
Course	189 (39%)	42 (9%)	239 (49%)	17
Program	80 (16%)	43 (9%)	345 (71%)	19

Speaking and Voting

The associations between how faculty would speak and vote for distance education on a five point scale were positive and statistically significant in all cases, but the relationships became weaker with each voting item as shown in Table 5.9.

Table 5.9. Spearman Rank Correlation Coefficients for Speaking and Voting Items.

	Four Voting Items			
	Undergraduate		Graduate	
	Course	Program	Course	Program
How Faculty Would Speak	0.564	0.473	0.399	0.287

There was much greater variation in faculty responses to the voting items than in the speaking item. Speaking gave a general indicator of support in principle for the concept of distance education, but faculty put conditions on their support depending upon the number and level of courses. Therefore, further analysis aimed to explain the variations in faculty responses to the voting items. Also, the variations in faculty responses to the four voting items showed that certain patterns of voting existed. These voting patterns provided the most useful way to categorize respondents according to the extent of their support for distance education.

Voting Patterns and the Extent of Support Categories

Several distinct voting patterns were used to categorize the faculty as supportive of, opposed to, or divided in their support for distance education. The use of a summated score for the

voting items was explored, but this disguised some variations that required explanation. Looking at the data, it was evident that some faculty voted positively for each item, while others voted negatively for each, and some had a mixture of favourable and unfavourable votes, usually dividing along the lines of course versus program, or undergraduate versus graduate distance education. Voting patterns were coded by assigning the responses faculty selected for each of the four voting items a positive or negative symbol as follows:

1. Yes, definitely and yes, probably = a positive symbol (+)

2. No, probably and no, definitely = a negative symbol (-)

The voting patterns with these symbols ranged from (+ + + +) for the most supportive, to (- - - -) for the most opposed positions. The votes for each respondent were coded in this manner and similar patterns were clustered to initially form nine groups that were subsequently collapsed to five. The nine groups of voting patterns were:

1. Voted favourably for all items: (+ + + +)

2. Voted favourably except for graduate program: (+ + + -)

3. Voted favourably for undergraduate courses and program, but unfavourably for graduate distance education: (+ + - -)

4. Voted favourably for distance education courses, but unfavourably for programs: (+ - + -)

5. Voted unfavourably for undergraduate courses and program, but favourably for graduate courses and program: (- - + +)

6. Voted favourably for an undergraduate course, but unfavourably for all other items: (+ - - -)

7. Voted unfavourably for all items: (- - - -)

8. Abstained in one or more item.

9. Data missing for one or more items.

The respondents with data missing and with abstention votes were deleted for the purposes of grouping respondents into three categories of support for distance education: 1. Supportive; 2. Divided Support; 3. Opposed (see Table 5.10). Categorisation of abstention votes would

have been arbitrary. Respondents who abstained usually commented that they did so because of lack of information on distance education and they also had low familiarity scores. Seventy-three percent of the respondents (73%; n=356) could be grouped under the three support categories and this became the sample for further analysis according to the three established categories of support. The divided support group (31%) might be considered ambivalent because they would support distance education with limitations on the number and level of courses that could be taken. However, there was less ambivalence and more opposition evident amongst the respondents in this study than reported in Johnson's (1978) research where the majority were ambivalent. Johnson (1978) measured faculty receptivity, similar to the attitude and speaking items used here, which found that the majority of subjects (54%) would likely speak positively about distance education. However, this positive speaking inclination would usually translate only to favourable votes for an undergraduate distance course and a minority of the respondents would give more extensive support to distance courses and programs, regardless of level.

Table 5.10. Categories of Support for Distance Education with Faculty Voting Patterns on Proposals to Offer Distance Education Courses/Programs for Degree Credit (n=487).

Categories of Support with Voting Patterns	Respondents n %
1. Very Supportive	95 (19.5%)
a. (+ + + +) n= 65	
b. (+ + + -) n= 30	
2. Divided Support	150 (30.8%)
a. (+ + - -) n=82	
b. (+ - + -) n=59	
c. (- - + +) n= 9	
3. Opposed	111 (22.8%)
a. (- - - -) n=37	
b. (+ - - -) n=74	
Total	356 (73.1%)
4. Abstentions in one or more items	94 (19.3%)
5. Data Missing in one or more items	37 (7.6%)
Total	487 (100%)

Figure 5.8. gives a graphic representation of the proportions of respondents in the three categories support as well as the proportions with missing data or abstentions.

Figure 5.8. Proportions of Respondents by Categories of Support for Distance Education.

An indication that the three established categories of support for distance education were valid was given by a chi-square analysis of the relationships between the categories and how faculty would speak about distance education (see Table 5.11). This confirmed that 81% of those who spoke positively showed at least divided support in their voting. Also, 88% of those who were supportive would also speak positively about distance education and none of them would speak negatively. Furthermore, respondents who would speak neutrally or negatively were mainly in the divided and opposed categories.

Table 5.11. Categories of Support For Distance Education (DE) by How Faculty Would Speak About DE.

| | Category of Support | | |
| | Supportive | Divided | Opposed |
Speak	n %	n %	n %
Positively	80 (88%)	96 (73%)	34 (32%)
Neutrally	11 (12%)	34 (26%)	42 (39%)
Negatively	0 (0%)	2 (1.5%)	31 (29%)

Chi-square = 98.12, df=4, significance 0.000

Familiarity and Support

Faculty responses to each of the speaking and voting items shown in Table 5.12 were significantly different according to their familiarity with distance education. Faculty who were more familiar with distance education were more supportive. This concurs with the previous findings of Johnson (1978) that faculty with direct knowledge were significantly more receptive to the external degree program than those with no knowledge.

Table 5.12. Chi-square Analysis of Familiarity Scores and Speaking and Voting Items.

Items	Familiarity with Distance Education (DE)		
	Chi-square	df	Significance
1. Speaking about DE	28.49	4	0.000
2. Voting for Undergraduate Course	22.39	4	0.0002
3. Voting for Undergraduate Program	23.50	4	0.0001
4. Voting for Graduate Course	18.00	4	0.0012
5. Voting for Graduate Program	19.06	4	0.0008

There was also a statistically significant difference according to faculty familiarity with distance education and the three categories of support established in the analysis. Respondents with high familiarity were more supportive than those with low familiarity with distance education. However, the difference has more statistical than practical significance for explaining faculty support for distance education. Table 5.13 shows that 25% (n=32) of those with low familiarity were in the supportive category. Additionally, 57% (n=41) of those with high familiarity fall in the divided support or opposed categories. In 21% of the cases (73 of 349) the concept of familiarity does not give a strong explanation for the extent of faculty support for distance education.

Table 5.13. Faculty Familiarity with Distance Education by the Extent of Faculty Support for Distance Education.

| | Familiarity | | |
Extent of Support	Low n %	Some n %	High n %
Supportive	32 (25%)	29 (20%)	31(43%)
Divided Support	51 (39%)	69 (47%)	27 (38%)
Opposed	47 (36%)	49 (33%)	14 (19%)
Total	130 (100%)	147 (100%)	72 (100%)

Chi-square=16.019; 4df; significance=0.003

Support and Professional Characteristics

This section addresses the research question about differences in faculty support for distance education according to selected professional characteristics. This is discussed below for professional characteristics and how faculty would likely speak about distance education, how faculty would likely vote, and lastly, in relation to the three categories of support established during data analysis.

Professional Characteristics and Speaking. Table 5.14 gives the chi-square analysis for how faculty would likely speak about distance education according to professional characteristics. Female and male faculty would speak positively, neutrally, or negatively about distance education in almost identical proportions. There were no significant differences by teaching or research interests. The soft and the applied disciplinary groupings spoke more positively about distance education than those in the hard, pure (natural sciences) group as

portrayed in Figure 5.9.

Table 5.14. Chi-square Analysis of Speaking and Professional Characteristics.

	Speaking		
Professional Characteristics	Chi-square	df	Significance
Gender	1.077	2	0.584
Discipline	16.479	6	0.010
Interests in Research or Teaching	10.987	4	0.027
Research Type			
Hard/Soft	10.394	4	0.034
Pure/Applied	4.101	4	0.393

Figure 5.9. How Faculty Would Likely Speak About Distance Education by Discipline.

By How Faculty Would Likely Vote. Table 5.15 gives the chi-square analysis for the four voting items with gender and interests in teaching and research. Female respondents tended to vote more favourably than males overall, but there was a statistically significant difference for only one of the four voting items. Women gave significantly more support to graduate distance education courses than men as portrayed in Figure 5.10. There were no statistically significant differences in respondents' votes by their interests in teaching or research.

Table 5.15. Chi-Square Analysis of Faculty Votes for Distance Education Proposals by Gender and by Interests in Research or Teaching.

Voting Items	Gender	Interests in Research/Teaching
	df=2	df=4
Undergraduate Course		
Chi-Square	3.23	3.066
Significance	0.199	0.547
Undergraduate Program		
Chi-Square	1.812	7.184
Significance	0.404	0.127
Graduate Course		
Chi-Square	12.459	6.918
Significance	0.002	0.140
Graduate Program		
Chi-Square	5.019	10.916
Significance	0.081	0.028

Figure 5.10. How Faculty Would Vote for a Graduate Distance Course by Gender.

Table 5.16 shows that there were significant differences by discipline in votes for distance education at the graduate level. The difference was greater for a graduate distance course than for a graduate distance program because there was less overall support for a graduate program from all groups of respondents..

Table 5.16. Chi-Square Analysis of Faculty Votes for Distance Education Proposals by Disciplinary Classification and by Research Type.

Voting Items	Disciplinary Classification	Faculty Self Ratings of Research Type	
		Hard/Soft	Pure/Applied
Undergraduate Course			
Chi-Square	6.511	6.787	1.132
Significance	0.368	0.148	0.889
Undergraduate Program			
Chi-Square	9.891	16.623	7.136
Significance	0.129	0.0023	0.129
Graduate Course			
Chi-Square	49.635	25.319	27.884
Significance	0.000	0.000	0.000
Graduate Program			
Chi-Square	19.994	16.200	16.903
Significance	0.003	0.002	0.0028

The greatest difference was for how faculty in the hard, pure (natural sciences) group differed in their reported propensity to vote compared to the other groups. Only 11% of respondents in the hard, pure group reported they would vote favourably regarding graduate courses, while faculty in the other three disciplinary classifications responded more favourably (32-57%) as displayed in Figure 5.11.

Figure 5.11. How Faculty Would Vote for a Graduate Distance Course by Discipline.

The voting item on distance education for a graduate program showed the same difference for hard, pure group versus the others, although it was not as marked since most faculty in all disciplines would likely vote against distance education for a graduate program. Faculty who rated their research as soft voted significantly more favourably overall than faculty who rated their research as hard. Additionally, faculty who rated their research as applied voted more favourably overall than the pure group.

By Categories of Support Established During Data Analysis. Table 5.17 displays the chi-square analysis for the three categories of support for distance education and professional characteristics. This analysis omitted respondents in the abstention (n=94) and missing data (n=37) categories for the four voting items. The differences noted in the previous section on voting were the same but more evident.

Table 5.17. Chi-square Analysis for Categories of Support for Distance Education and Professional Characteristics.

Professional Characteristics	Categories of Support		
	Chi-square	df	Significance
Gender	9.013	2	0.011
Discipline	32.400	6	0.000
Interests in Research or Teaching	11.776	4	0.019
Research Type			
Hard/Soft	17.686	4	0.0014
Pure/Applied	22.284	4	0.0002

Women were more supportive of distance education than men at the 0.01 level of statistical significance. However, there were fewer women in the hard, pure group that was the most opposed to distance education. Respondents who were more interested in research than teaching tended to be less supportive of distance education. The greatest differences were noted in the disciplinary classifications of the respondents and also in faculty self-ratings of their research type. The majority (60%; n=29) of faculty in the hard, pure group were in the opposed group while the soft, applied group contained the most respondents in the supportive category (38%; n=38) of any disciplinary grouping. The same differences were found in faculty self-ratings of their research type with the hard ratings soft and applied respondents showing more support (see Figures 5.12 and 5.13).

Figure 5.12. Proportion of Respondents in Three Categories of Support for Distance Education by Self-Rated Research Type as Hard or Soft.

Figure 5.13. Proportion of Respondents in Three Categories of Support for Distance Education by Self-Rated Research Type as Pure or Applied.

The Reasons Faculty Gave for Their Votes

Two open comment items on the survey questionnaire asked respondents to state the reason for their votes at both the undergraduate and graduate levels. Faculty comments indicated that their beliefs and values about the accessibility and quality of education were the most important influences on the extent of their support for distance education. This concurs with the findings of Johnson (1978) that faculty scepticism may result from conflicting values regarding the accessibility and quality of education.

The comments faculty gave to this item were categorized according to the concepts in the conceptual framework for the study. Reasons related to the compatibility of distance education were by far the most numerous. Thirteen comments specified feasibility reasons. Table 5.18 gives the categories of comments with frequencies. These questionnaire items had

the highest incidence of missing data. Eighty-six (17.7%) of the respondents did not provide reasons for their undergraduate votes and 64 (13.1%) did not give reasons for their graduate votes. The mixed/other category contained comments about quality which gave combinations of reasons about face-to-face interaction, campus experience, and the type of course suitable for distance education. Seventeen percent (17%, n=80) of the mixed category comments stated that their votes would depend on the course. Although forty-three percent (43%) of the respondents were classified as having low familiarity with distance education, only 5-6% gave lack of information as a reason for their votes.

Table 5.18. Reasons for Faculty Votes on Distance Education Proposals.

Reasons	Undergraduate		Graduate	
	n	%	n	%
Accessibility	63	(13%)	23	(5%)
Face-to-Face Interaction	92	(19%)	152	(31%)
Campus Experience	23	(5%)	33	(7%)
Mixed and other reasons	186	(38%)	179	(37%)
Lack of Information	28	(6%)	24	(5%)
Feasibility	9	(2%)	13	(3%)
Missing data	86	(18%)	63	(13%)
Total	487	(100%)	487	(100%)

The data were explored using a matrix of the reasons faculty gave for their votes by the categories of support for distance education to visually identify patterns of association (see Tables 5.19 and 5.20). Statistical analysis was not helpful because of the low numbers in

many cells of the matrix.

Table 5.19. The Reasons Faculty Gave for Their Votes for <u>Undergraduate</u> Distance Education by Categories of Support for Distance Education.

	Categories of Support			
	Supportive	Divided	Opposed	Abstain
Reasons	n (%)	n (%)	n (%)	n (%)
Accessibility	33 (43%)	19 (15%)	1 (1%)	9 (13%)
Interaction	14 (18%)	27 (22%)	29 (29%)	15 (22%)
Campus Experience	0	8 (7%)	9 (9%)	3 (4%)
Mixed/Other	26 (34%)	68 (55%)	55 (55%)	23 (33%)
Lack of Information	2 (3%)	0	2 (2%)	17 (25%)
Feasibility	1 (1%)	1 (1%)	4(4%)	2 (3%)
Totals	76 (100%)	123 (100%)	100 (100%)	69 (100%)

Table 5.20. The Reasons Faculty Gave for Their Votes for Graduate Distance Education by Categories of Support for Distance Education.

	Categories of Support			
	Supportive	Divided	Opposed	Abstain
Reasons	n (%)	n (%)	n (%)	n (%)
Accessibility	22 (27%)	0	0	1 (1%)
Interaction	15 (18%)	57 (43%)	40 (40%)	32 (42%)
Campus Experience	8 (10%)	16 (12%)	5 (5%)	3 (4%)
Mixed/Other	31 (38%)	59 (44%)	50 (51%)	24 (32%)
Lack of Information	2 (2%)	0	1 (1%)	14 (18%)
Feasibility	4 (5%)	2 (1%)	3 (3%)	2 (3%)
Totals	82 (100%)	134 (100%)	99 (100%)	76 (100%)

The faculty who gave accessibility as a reason for their votes were more supportive of distance education. The majority (33 of 62= 53%) of respondents who gave accessibility reasons for their undergraduate votes were in the supportive category, while 30% (n=19) were divided in their support. One respondent who gave accessibility reasons was opposed. At the graduate level this association was more evident because 96% (n=22 of 23) of those who gave accessibility reasons were in the supportive category.

Reasons related to face-to-face interaction were given more frequently by respondents in the divided and opposed groups. Reasons about interaction were also mentioned more frequently for graduate than for undergraduate votes. Campus experience alone was not a frequent

reason for faculty voting in any group, but it was stated least by those who supported distance education. Mixed reasons about face-to-face interaction and campus experience were the most frequent reasons for faculty votes in all categories of support indicating that quality issues are major concerns for most respondents. Lack of information was given as a reason primarily by those who abstained in their votes. However, lack of information was not a commonly given reason overall (n=28 for undergraduate votes and n=24 for graduate votes) despite low faculty familiarity with distance education. This supports the argument that faculty have definite opinions about distance education even when they do not know much about it and that these opinions will likely be reflected in how they vote in faculty committee meetings for distance education proposals. There were insufficient comments about feasibility to draw any meaningful conclusions except that it was not a major reason for faculty votes one way or the other.

Summary

A survey of faculty was conducted at the University of British Columbia to investigate the extent of faculty familiarity with and support for distance education. The survey sample was selected to allow for subgroup analysis by gender and by four disciplinary classifications. The response rate for the net sample of 670 faculty was 73%, with returns from 200 women and 287 men. Most respondents were not familiar with distance education, beyond hearing or reading about it generally. Just over 50% of the respondents described their overall attitude towards distance education as positive and about the same number said they would speak positively about it. However, this positive voice did not mean that faculty would vote favourably for distance education, except for a distance course at the undergraduate level which 78% would support. There was very little support for a graduate program by distance education. Distinct voting patterns allowed 73% (n=356) of the respondents to be categorized into three groups of support for distance education: 1. Supportive (19%); 2. Divided Support (31%); 3. Opposed (23%).

Chi-square statistical tests were used to investigate differences according to familiarity with and support for distance education, and selected professional characteristics. Respondents who were more familiar with distance education were significantly more supportive of distance education. However, other factors must be considered for explanatory purposes because one third of the faculty who were in the supportive category had low familiarity with distance education.

The Biglan classification was used to cluster the disciplines into four groups (1. Hard, Pure; 2. Hard, Applied; 3. Soft, Pure; 4. Soft, Applied) for analysis purposes. Faculty in the soft, pure and soft, applied disciplines were significantly more familiar with distance education. Faculty self ratings of their research type on a hard to soft and on a pure to applied continuum differentiated the groups similar to the Biglan classifications. Respondents who rated their research as soft were significantly more familiar with distance education than those who rated their research as hard.

There were no statistically significant differences in familiarity with or support for distance education by teaching or research interests. However, those who were mainly interested in teaching or who were equally interested in both teaching and research consistently tended to be more supportive than respondents who were mainly interested in research. The greatest differences were by disciplinary groupings and these differences were similar to those for faculty self-ratings of their research type. The applied disciplines were the most supportive of distance education, and the hard, pure (natural science) disciplines were the least supportive. The hard, pure group gave almost no support to distance education at the graduate level. Women voted more favourably than men for all items, but the differences were statistically significant only for a graduate distance course.

The reasons faculty gave for their votes on distance education proposals indicated that their beliefs and values regarding accessibility and quality were the most important factors. Faculty who gave accessibility as the reason for their votes were the most supportive of distance education. The majority of the reasons given by respondents in each of the categories of support for distance education were about quality, especially regarding face-to-face interaction. The reasons for variations in faculty support for distance education were investigated further by interviews with faculty from the supportive, divided, and opposed categories of support established by the survey. The results of the interview phase of the study are presented in the next three chapters.

CHAPTER 6

THE INTERVIEW RESULTS: INTRODUCTION

This chapter introduces the results of the interview phase of the research which investigated how faculty understand the compatibility and feasibility of distance education. Compatibility is the perceived congruence of distance education with the beliefs and values of the individual. Feasibility is the perceived ability to successfully implement distance education. The interview sample is outlined first and then the findings about the validity and reliability of the questionnaire responses on faculty familiarity with and support for distance education are presented. Several indicators of compatibility and feasibility did not vary according to the extent of faculty support for distance education. Faculty held interesting perceptions about these indicators and this chapter provides a descriptive analysis of these findings.

The Interview Sample

A total of fifty faculty were interviewed representing each of the three categories of support for distance education as established by the survey: 1. Supportive; 2. Divided Support; 3. Opposed. Chapter 5 explains how faculty were categorized by the extent of their support for distance education and Tables 4.5 and 4.6 (Chapter 4) show the interview sample by discipline and gender. The distribution of faculty according to the three categories of support are given in Table 6.1 with the distribution for the total survey sample, for the sample categorized, and for the sample interviewed.

Table 6.1. Survey, Categorized, and Interview Samples by Categories of Support for Distance Education

Category of Support	Survey n %	Samples Categorized %	Interview n %
Supportive	95 (19.5%)	26.7%	14 (28%)
Divided	150 (30.8%)	42.1%	22 (44%)
Opposed	111 (22.8%)	31.2%	14 (28%)
Totals	356 (73.1%)	100%	50 (100%)

The faculty interviewed reflected about the same level of familiarity with distance education as the survey sample (Low= 43%, Some=40%, High= 17%). Familiarity levels for the interview sample are given in Table 6.2.

Table 6.2. Interview Sample by Familiarity with Distance Education(DE) by Three Categories of Support for DE.

Category of Support	Familiarity with DE			
	Low	Some	High	Total
Supportive	3	6	5	14
Divided	8	11	3	22
Opposed	9	4	1	14
Totals	20 (40%)	21 (42%)	9 (18%)	50

Check of Questionnaire Validity and Reliability

The familiarity and support sections of the survey questionnaire were reviewed with faculty at the beginning of interviews to set the stage for the interview and to check the validity of the survey data and the reliability of subject responses. The latter was an extension of the measures taken to establish the validity and reliability of the questionnaire prior to the survey as described in Chapter 4. The information obtained was included in the introduction to the interview summaries and the results are presented below. Excerpts of interview summary data are provided in the text to illustrate the results. The code number for the respondent who provided the data is given in brackets at the beginning of each quote, followed by a letter symbol indicating the subject's category of support for distance education (S= Supportive; D = Divided Support; O = Opposed).

Faculty Familiarity with Distance Education

In eight cases (16%) the response category chosen for one of the questions on familiarity was one point higher (3 cases) or lower (5 cases) than the actual level based on the interview. In seven of these cases the one point change in score did not change the familiarity classification of the respondent. In one case the change in score also changed the familiarity classification from some, to low, because this respondent had been involved in non-credit, rather than credit distance education. Overall, the familiarity classifications were confirmed in 98% of the cases.

The review of faculty familiarity confirmed the survey findings that most faculty had heard about distance education informally. Further, it was noted that friends, relatives, and the British Open University were important sources of information. Ten (20%) of those interviewed had heard about distance education from friends or relatives who had studied at a distance or who worked in distance education (3 of 10 cases). Eight faculty (16%) said they knew about distance education from the British Open University and had reviewed the teaching materials used there. Thirteen (26%) of the interview sample had not heard about distance education courses at UBC. They were from all categories of support (Supportive: 3: Divided: 4; Opposed: 6), with almost one half of them in the opposed category. Some faculty with low familiarity qualified their views as tentative and stated that they had not given the topic much thought. All faculty had received the explanatory note on distance education that accompanied the survey questionnaire.

It was evident that, whether or not faculty were familiar with distance education, they had definite opinions about it that they were willing to express. Their views were often based more on their general ideas about university education rather than on specific information about distance education.

(463-O)*"My views about the whole distance education thing are almost more philosophical or general rather than anything to do with what I learned about the Open University...I think my general prejudices, if you like, about the whole thing are based ...on a general belief about how education ought to be rather than how it is. "*

Otherwise, faculty noted that their views were based on subjective feelings about whatever they did know about distance education.

(647-O)*"My knowledge is very non-professional. I just hear about these things superficially. My attitude [towards distance education] is certainly negative, but I feel that I don't have any hard information. It's based on my own subjective feel for this..."*

There was no evidence that faculty had inaccurate information about distance education as faculty acknowledged their lack of knowledge about the specific methods of distance education. There was some indication that knowledge about how distance education could be designed to maintain quality, especially mechanisms for two-way communication and arrangements for campus, laboratory and field experiences, might have a positive influence on faculty views. One subject noted the need for faculty to have more formal information.

(229-D)*"It is necessary for people who have some experience of it [distance education]...or know even a little about it to try to convey its reality, its concrete reality to people, rather than the sort of half notions that they walk around with; the shadowy sense of what it might be. "*

One of the assumptions of the study is that the process of university governance by faculty representation in academic committee decision making may place faculty in a position to vote on instructional programs that they know little about (Baldridge, 1971; Lindquist, 1974; Becher & Kogan, 1980). Therefore, it is important to understand whether faculty opinions are based on low or high levels of knowledge about distance education. The results suggest that the above assumption is valid. The faculty who did not know much about distance education

had definite opinions about it which could influence committee or senate decisions about distance education proposals.

Faculty Support for Distance Education

The second part of the questionnaire was reviewed and subjects were asked if they would change any of their responses. Part 2 asked faculty to describe their overall attitude towards distance education, and to state how they would likely speak about and vote for distance education proposals in faculty meetings. For brevity and convenience, the latter items are referred to hereafter as the "speaking" and "voting" items on the questionnaire. Faculty were also asked if they gave their questionnaire responses while thinking about distance education only in relation to their own discipline or about its application in all fields. All faculty responded to the attitude and speaking items based on their views about distance education in principle. However, in the voting questions their disciplinary perspective had more influence and respondents in the sciences and professions often stated that their support would depend on the type of course or program. However, only one person in the supportive group had concerns about the type of course or program. Five faculty in the divided support group and three in the opposed group said their support would depend on the type of course, but they did consider the votes from a wider perspective than just in their own field. The main reason for their concern was to maintain quality because of the need for personal interaction on campus in some courses. The logistics of laboratories and field experiences were secondary reasons.

None of the faculty interviewed in the supportive and divided support groups would change their responses to the voting questions. However, one supportive subject advocated a one year campus residency so that distance education would be considered viable by those who opposed it. A number of faculty in the opposed category talked about distance education courses more positively than their questionnaire responses indicated. Six of them conceded

that they would probably support a distance education course. However, this would not change their category of support. They might support a distance course as a last resort, if nothing else was possible. It appeared to the researcher that these faculty may have wanted to give more socially acceptable answers, especially during the face-to-face interview. It was notable that three subjects would probably support a graduate, rather than an undergraduate, distance course because they saw distance education as independent, self-directed study and they believed this was more appropriate at the graduate level.

One subject in the opposed category was supportive of distance education at the undergraduate level, but voted negatively because of a firm belief that distance education should be conducted by a separate institution designed for that purpose. This person was highly familiar with distance education and involved with distance teaching, but believed the best use of resources was to leave distance education to the Open University of B.C. The subject spoke very positively about distance education at the undergraduate level but did not believe it was appropriate at the graduate level. Hence, this person's category of support for distance education was changed from opposed to divided support.

Faculty responded to the attitude and speaking items on the basis of what they thought about the concept of distance education. Their responses on the voting items, which were more specific, were influenced by ideas about the suitability of distance education for specific courses and disciplines. However, most faculty (n=42; 84%) responded to the voting items while thinking about distance education in all fields. The category of support was not valid for one respondent because of the reason given for negative votes: that UBC should not offer distance education. This questionnaire review confirmed the classification of respondent support for distance education in 98% of the cases interviewed.

Non Discriminating Indicators of Compatibility and Feasibility

Faculty perceptions about three indicators of compatibility and eight indicators of feasibility, as noted in Table 6.3, did not show sufficient variation to be retained in the analysis as important influences on their support for distance education. Faculty held interesting perceptions about these indicators which were consistent with the literature on academic values and how universities function as organizations. The remainder of this chapter gives a descriptive analysis of how faculty understood these indicators.

Table.6.3. Indicators of Compatibility and Feasibility that did not vary according to Faculty Support for Distance Education.

Indicators of Compatibility	
Accessibility	What should be done for adult, part time students
Quality	The calibre of distance students
	Distance teaching materials
Indicators of Feasibility	
Resources	Human resources for teaching and administration
Institutional Support	Rewards for teaching versus research
	Views of other faculty
	Administrative leadership
	Academic Rules and Regulations
Personal Impact	Workload
	Adjustments to distance teaching
	Satisfactions and benefits

<u>Compatibility</u>

Three indicators of compatibility did not appear to influence faculty support for distance education. Table 6.4 summarizes how faculty understand these indicators and the findings for each are discussed thereafter.

Table 6.4. How Faculty Understood the Non Discriminating Indicators of Compatibility.

<u>1. What should be done for adult, part time students?</u>
Services should be provided, especially evening, weekend, and summer classes. These students are highly motivated and committed.

<u>2. The calibre of distance students</u>
Faculty have no special concerns about the ability of distance students, but believe that distance students need to be self-directed and able to study alone.

<u>3. Distance teaching materials</u>
The majority are not familiar with them and 46% had no comments.
Faculty who were opposed tended to believe distance teaching materials were too structured and superficial, while other faculty believed the materials are well designed and could be better than those used on campus.

    <u>1. Services for adult, part time students</u>. Faculty understood this indicator as part of the broader notion of accessibility and how open or selective the university should be to students. All faculty felt the university should be doing something for adult, part-time students, but they had not given it much thought and did not have many comments. Notably, faculty who opposed distance education felt that adult, part-time students should be served by evening, weekend, and summer classes, rather than by distance education. Faculty in the other groups of support for distance education mentioned the latter options, but added distance education as well. Two faculty (4%) felt graduate education should not be available for part-time study. Faculty believed that adult, part-time students were highly motivated with a strong

commitment to their studies. Eleven faculty (22%) also noted the importance of part-time study for women.

> (331-D) *"I find lots of women after they have a family, they decide to come back to school. I think they do very well because they are determined to do it....They know it is hard work and they do it. They may have to catch up at first because they have not studied for a while but they catch up ... and then they are fantastic "*

2. The Calibre of Distance Students. All of the faculty were more concerned about the process of distance education as an educational method than about the ability of students to learn. None of the faculty interviewed who opposed distance education expressed strong opinions one way or the other about the calibre of distance students. Other faculty who were concerned about educational outcomes did not talk about problems with students. Instead, they focused on the delivery method and limitations of distance education, particularly the lack of interaction and campus experience.

> (628-D) *"You don't get the classroom discussion, you don't get the group interaction. I think if you take a student who would be an A student if they were on campus, they'd probably be a B plus student if they did it through distance. "*

Most faculty thought about the calibre of students in terms of how open or selective the university should be, so that admissions criteria could safeguard the quality. Twenty faculty (40%) commented that distance students would need to be more self-directed and more able to study alone than students on campus.

> (437-D) *"My only concern about distance students is when you're working on your own you need a lot of motivation and you need self-discipline...It would work better for some people than for others."*

3. Distance Teaching Materials. Most faculty were not very familiar with distance teaching materials and this may explain the lack of significant variation in this indicator. Twenty-three respondents (46%) did not comment. Six (43%) of the supportive faculty commented that distance teaching materials could be of better quality than campus instruction and the others did not have concerns about them. Three faculty (21%) in the opposed group believed the materials were too superficial, structured and "reduced to the bare bones" (280-O). One person assumed distance teaching materials were prepared by outstanding faculty and therefore would be of high quality.

> (435-O) *"I haven't found what has struck me as very good materials in what I've seen of distance education materials, and I think it's an enormous problem. The major weakness is that they are not conceptually strong. The content is more superficial and applied, so I don't consider it appropriate for a degree level."*

> (458-S) *".somebody would actually spend the time to think through exactly what they are trying to teach and to write it down and be much more directive, it could possibly be of a much higher quality. "*

In the divided support group, two subjects (9%) believed distance teaching materials were better than those on campus and six (27%) stated they were of good quality. Three (14%) commented negatively about distance teaching materials because they believed that the teaching packages lacked specimens for laboratory experiments, are too prescribed, and lack Canadian content.

Feasibility

The reasons for variation in faculty support for distance education are not well explained by the concept of feasibility. Faculty perceptions about eight of the ten indicators of feasibility identified in the conceptual framework did not show sufficient variation to be retained in the

analysis as important variables. Faculty often did not comment on all of the indicators because they were not familiar with them, nor had they thought about them. The feasibility indicators would influence faculty participation in distance education rather than their support for distance education in principle. How faculty understood these indicators is summarized in Table 6.5 and discussed afterwards.

Table 6.5. How Faculty Understood the Non Discriminating Indicators of Feasibility.

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1. Human resources for teaching and administration
No comments, 46%. Faculty resources are related to rewards, workload, and quality. Logistical and technical support personnel are needed.

2. Rewards for teaching versus research
Rewards favour research over teaching. Should be balanced to give incentives for teaching. Lack of rewards for teaching have a negative influence on faculty participation in distance education, but would not influence their support of distance education in principle.

3. Views of other faculty
Negligible influence on faculty support. Less than one-third discussed distance education with other faculty. Would listen to other faculty who were experts in their field and who were also knowledgeable about distance education.

4. Administrative leadership
Not aware of their views. No comments, 64%. Important for the practicalities of implementation.

5. Academic Rules and Regulations
No comments, 64%. Advocate more flexibility with longer time for degree completion.

6. Workload
Distance teaching workload higher than for teaching on campus. Faculty would not participate without recognition and workload adjustments.

7. Adjustments to distance teaching
No comments, 34%. Time and workload major adjustments. Faculty need training.

8. Satisfactions and benefits
No comments, 56%. Intrinsic related to beliefs about accessibility and enjoyment from working with interesting, motivated students.

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1. Human Resources for Teaching and Administration of Distance Education.

Twenty-three of the fifty (46%) faculty interviewed did not have comments about this indicator because they did not know or had not thought about the topic. There were a few notable exceptions, but their views did not reflect a pattern of variation. Faculty thought about human resources as part of other indicators of feasibility that are discussed later in this section: rewards for teaching and research, faculty workload, and faculty adjustments to distance teaching. An outline of the comments are given below:

1. human resources for distance education are important for quality;

2. more faculty would need to be hired; retired faculty were suggested because they have the expertise and time;

3. the best use of resources is to leave distance education to the separate institution devoted to that purpose (One person was involved in distance teaching through the Open University and had a very positive attitude towards distance education but would vote against it at UBC);

4. suitable logistical support is not available;

5. the need for technical personnel.

One person who was strongly opposed to distance education was highly concerned about the feasibility, but this was an exception.

> (740-O) *"The feasibility problems with distance education would be monstrous. The staffing would be phenomenal. You would need a lot of support people and I think we have too many support people and not enough people teaching now. "*

2. Rewards for Teaching versus Research. This indicator revealed the overall conflict between teaching and research documented in the literature (Becher & Kogan, 1980; Halsey & Trow, 1971; Leslie, 1980) rather than anything specific to distance education. Faculty believed that the reward system did not affect their support for distance education in principle, but that it would affect faculty participation in distance teaching. Forty of the faculty (80%)

interviewed stated that the reward system at UBC favours research over teaching and that this deters faculty from becoming involved in distance teaching or committed to teaching in general.

> (176-D) *"There is no real incentive, at least in my experience, for becoming committed to teaching. "*

> (312-S) *"The university has always had this hallowed research thing....in distance education this is why people may not be as eager to get involved, because you don't get any glory. "*

> (364-D) *"Ten course manuals doesn't equal one article. An article is supposed to advance knowledge. Course manuals sum it up."*

Faculty understood that they would sacrifice career rewards if they became more involved in teaching because this would take time away from research. The faculty involved in distance teaching said that they had made a personal choice, likely at the expense of career advancement.

> (174-O) *"I don't think there are any real institutional barriers [to a faculty member changing teaching methods] except for the promotional rewards. You'd probably have to forego promotion to some extent. "*

> (792-S) *"I made this choice because I have to look at myself in the mirror every morning and feel good about what I do. I will likely pay a price in terms of promotion, but that is my choice."*

> (719-D) *"With young faculty, the pressure on them to publish is just really so heavy that thinking about designing a distance education program would...be so far out of their mind, if they wanted to be university teachers. "*

> (647-O)*"A young person who chooses to put a lot of effort into teaching is commiting suicide, I mean career suicide. "*

Some faculty understood the reward system as having implications for quality because the best people would not become involved in distance teaching.

> (364-D) *"The reward system at this university does not reward that kind of production. It is not regarded as significant....So who is going to do it? A few marginal people will do it for the money, but the leaders in any field will not have the time. "*

> (435-O) *"The trouble is that the people who are qualified to do it have other things on their plate....They tend to be mostly people active in research and payoffs within the university are in research and there are no payoffs for this kind of effort."*

The majority of faculty believed rewards should be more balanced for teaching and research, although seven (14%) faculty stated that the emphasis of research over teaching was not an issue for them. These seven faculty were either opposed to or divided in their support for distance education. Five leaned towards research in their interests while two of them were equally interested in teaching and research. Overall, faculty understood the reward system as a deterrent to involvement in distance education rather than as an influence on how they would likely speak about and vote for it.

3. Views of Other Faculty. Tables 6.6 and 6.7 show that most subjects indicated on the questionnaire that they had not discussed UBC's role in distance education or debated with other faculty controversial issues regarding distance education courses for degree credit. This was confirmed during the interviews with faculty who had usually heard about distance education from friends, colleagues, or other sources outside UBC. Hence, it was not surprising that most faculty felt other faculty did not influence their support. One subject suspected that faculty with negative views needed more information to correct misconceptions

(229-D) *"It is necessary for people who have some experience of it [distance education]...or know even a little about it to try to convey its reality, its concrete reality to people, rather than the sort of half notions that they walk around with; the shadowy sense of what it might be. "*

Table 6.6. Extent of Discussion with Other Faculty about Distance Education.

Category of Support	Extent of Discussion with Other Faculty			
	Not at All	To Some Extent	A Great Deal	Total
				n=
Supportive	9	2	3	14
Opposed	9	5	O	14
Divided Support	16	5	1	22

Table 6.7. Extent of Debate with Other Faculty about Controversial Issues Regarding Distance Education.

Category of Support	Extent of Debate with Other Faculty			
	Not at All	To Some Extent	A Great Deal	Total
				n=
Supportive	9	2	3	14
Opposed	11	3	0	14
Divided Support	18	4	0	22

A total of five faculty (10%) indicated that other faculty members influenced their views about distance education. Two of them said that colleagues influenced how they would vote, one was positively influenced and the other negatively. The other three subjects said that their perceptions of how other faculty felt about distance education influenced how they would likely speak about distance education in faculty meetings. Two of them who were very supportive of distance education said they would be careful about how they spoke because other faculty had negative opinions about distance education. One said they would make a strategic choice about their advocacy of distance education depending on how feasible it seemed and another felt faculty meetings were not the place to change people's minds and to speak positively about distance education there would be a waste of time. The third person claimed she/he would not voice negative views about distance education because it was viewed positively by others.

> (257-D) *"it's seen by the university as a positive thing to do, and I think for me to voice a negative opinion in a faculty meeting is not a productive thing to do for the department as a whole. So, I would basically not say anything."*

An additional three faculty who were opposed to distance education said they would listen to the views of other faculty about distance education if these faculty were credible and knew what they were talking about.

> (647-O) *"If other faculty supported distance education I could at least say, well, there are some good people who are apparently willing to invest their expertise and time and that would be very influential , although it would depend on what faculty supported it."*

The nonverbal responses of faculty noted by the researcher were that faculty prided themselves in making up their own minds. This concurs with the literature on academic culture regarding the value faculty place on autonomy especially concerning instructional matters (Becher & Kogan, 1980; Clark, 1987). This is illustrated by a subject who was very supportive of distance education.

(197-S)*"I would push for it [distance education] strongly and other people are going to push against it. They're not going to change my views, it's just a question of stating one's own case; unless there's something I've completely missed and they can show me hard data that it's a bad way to spend an educational dollar, and I don't think they'll be able to do that, mainly because the data isn't there. "*

Most faculty are not influenced by the views of other faculty regarding distance education. One of the reasons for this may be faculty lack of familiarity with distance education. It is notable that three faculty opposed to distance education said they would listen to faculty arguments in its favour, provided these faculty were credible experts in their field and knowledgeable about distance education. This is consistent with the literature on the social interaction process of change where respected leaders are influential in changing the views of others (Lindquist, 1974; Rogers, 1983).

4. Administrative Leadership. Overall, faculty were not aware of how administrators viewed distance education and they did not feel this would greatly influence their support. Thirty-two faculty (64%) had no comments. Thirteen faculty (26%) who did comment perceived administrator leadership as important to the practicalities of implementing distance education in terms of resource allocation, establishing policies, and providing incentives for faculty involvement. Three faculty said that they distrusted administrators. One claimed that administrative support of distance education would negatively influence their position. Another believed that administrators do not have a vested interest in new things because they are just supporting the structures for which they are responsible.

(174-O)*"I like to think that the faculty really run the university, but maybe I am naive. "*

(197-S) *"I think if we get the faculty support, I think that's most of the work done. "*

(458-S)*"I don't think you can do anything without having the institutional support...and I mean complete institutional support which plays out in terms of direct statements, policies, release time, acknowledgement...I think you can't do it unless you have that support."*

Administrative leadership regarding distance education was not perceived by faculty to have a direct influence on their support for distance education.

5. Academic Rules and Regulations. Thirty-two faculty (64%) did not comment on this indicator because they were not familiar with the appropriateness of academic rules and regulations. Eight faculty (16%) advocated more flexibility in academic rules and regulations, seven in the supportive group and one in the opposed. Ten (20%) made general comments that the rules should change if they presented problems, although one noted that this was very difficult to do. The most frequent concern was that the time period for degree completion should be longer to accommodate part time students.

(145-S): *"The academic rules and regulations present constraints to any normal human being who enters the system. I think they should take all the rules and throw them in the fire and start again and write a new book."*

(463-O) *"I would like to give students much more choice and freedom to study courses without so many rules and prerequisites. Instead, the university is totally bogged down...in regulations and paper work....I think the university is overrun with bureaucracy and tracking people."*

Faculty perceptions about academic rules and regulations had negligible influence on how faculty would likely speak about or vote for distance education.

6. Workload. Faculty perceptions about the workload for distance teaching did not influence their support for distance education in principle, but any increases in workload would negatively influence their own involvement in distance teaching. The workload involved in

distance teaching was thought to be high by all faculty and they were concerned about the rewards for how their time would be spent. This indicator was highly connected in the minds of faculty to their understanding of the reward system in the university.

> (257-D) *"It's much more labour intensive for the faculty and I think that the university, as they go into distance education, has to realize that...they've got to provide additional faculty members to deal with these distance education courses."*

> (252-O) *"There would be some reservation amongst faculty members if it were to take a good bit of their time to do this kind of teaching [distance education], if it didn't also result in some relief from whatever courses they might be teaching."*

Faculty felt overworked already and they would not participate in distance teaching unless it was a recognized part of their workload. This is consistent with the literature that a high workload and the conflicting demands of teaching versus research are the most stressful aspects of the academic profession (Becher & Kogan, 1980; Blackburn, 1974 ; Halsey & Trow, 1971).

7. Adjustments to Distance Teaching. Faculty spoke about this indicator as influencing their potential involvement in distance teaching rather than their support for distance education in principle. Seventeen faculty (34%) did not comment. The comments were of two kinds: 1. vague notions that there would be some adjustments, and 2. mention of specific adjustments and the need for faculty training.

In the vague category, fifteen (30%) faculty commented that time and workload would be the greatest adjustments and that they were not aware of other adjustments. They felt that any new teaching method or developing any new course would entail such adjustments. Two (4%) faculty felt the adjustments would be trivial.

In the specific category, eighteen (36%) faculty understood that there would be major adjustments and that faculty would need training in distance teaching. Three (6%) thought about adjustments in terms of learning to use technology, especially television. The main concerns were how to teach without face-to-face interaction, and how to design and structure distance teaching materials.

> (512-S) *"You have to rethink what you're doing, almost from the very beginning....It's a major adjustment and, to be honest with you, preparing distance education courses is sheer agony. It is very, very difficult."*

> (280-O) *"It's easier to write a book ...than to write lectures. When you have a class in front of you ...you can adjust your own talking to those people. You can look in their eyes and you know whether they have understood what you said. I don't think I would be able to give a lecture in front of a camera...I need interaction to be able to give something...I need the responsive audience ."*

> (364-D)*"someone would have to train me....I've never taught through either the phone or television media and so I would expect to be trained....I mean TRAINED, not just an orientation or introduction but a training in distance teaching. "*

> (270-D) *"I would certainly need a lot of teaching about how to do that [distance teaching]....It's a lot harder to know how to reach a student through written materials than it is for me orally. I would need a lot of training. "*

The adjustments to distance teaching would influence faculty participation in distance teaching rather than how they would speak about and vote for it in principle. The majority are not aware of what distance teaching involves, except that it would be an extra burden on their time. The adjustments faculty noted are discussed in the literature on the need for faculty preparation for distance teaching (Eastcott, 1981; McQuire, 1988; Meachem, 1982) and the faculty interviewed would likely be receptive to such assistance.

8. Satisfactions and Benefits. Most faculty had not given much thought to any benefits or satisfactions that they might get from distance teaching. Twenty eight (56%) had no comments. Those who commented believed the satisfactions and benefits were related to one's beliefs and values regarding accessibility to university degree education. Twelve (24%) made comments in relation to their values about providing equal educational opportunities and stated that to help students through distance teaching would be a source of satisfaction for them. Two faculty (4%) opposed to distance education noted that this "moral idea of giving opportunities" (499-O) could "ease the conscience" (463-O) of faculty who believed greater accessibility was needed. Five faculty (10%) stated they would gain satisfaction from working with distance students because they are motivated and have a wealth of practical experience to share. Two faculty (4%) noted benefits for time organization and one felt pride in the distance teaching materials produced would be satisfying. One subject with experience in distance teaching spoke of benefits to scholarship and the development of teaching skills in general.

> (521-S) *"It's very useful for thinking through and working out your own thoughts in a particular area...Distance education can, if it's a course of appropriate level, be a form of scholarship and research...It has a positive feedback upon your on campus teaching too. You become much more organized and explicit. "*

This indicator did not influence faculty support for distance education directly and the comments noted that the compatibility of distance education with one's views on accessibility were more important. A study of faculty who are involved in distance teaching could investigate the important ideas of Subject No. 521-S that distance teaching may have positive side effects for other activities. This might reveal incentives for faculty participation in distance teaching.

Other Factors

All faculty interviewed were asked if there were any other factors that influenced their support for distance education. Fifty percent stated that the interview questions were comprehensive. Ten (20%) repeated the main reasons for their views on distance education. Two additional factors were identified by the other 15 faculty (30%) as potentially important: 1. the educational experience of the faculty; 2. distrust of politicians and administrators.

The personal educational experience of faculty influenced their views in twelve cases (24%). In three cases the experience was as a distance student, one positive, one sceptical, and one who felt her/his experience as a distance education student lacked the richness that experience on a university campus provides.

> (456-O). *"I see that I missed so much in terms of how rich a learning experience one could have on a campus with your libraries, with your research, with your interaction with other people. To me it's just like I just went through it to get a piece of paper and then that was it.....I feel there's a real richness that can only be had by being on a campus and mixing with other people."*

One person was influenced by an educational experience in a different culture where self-directed learning, critical thinking, and a broad liberal education were emphasized. Eight faculty were influenced by their experience on a university campus to the extent that they believed at least some campus residency was essential for a university degree.

> (204-O) *"My personal university experience influences my views about distance education because I was part of an exclusive academic environment which I would have hated to miss. It was the whole environment, it was mixing with people of like mind, of like intelligence, with whom you could play bridge, chess, ...all sorts of things ...quite apart from the actual learning of your topic."*

Three people (6%) noted that a distrust or scepticism of politicians caused them to be negative or hesitant about distance education. They worried that the government would regard distance education as a cheap way to educate people and they would not be concerned about the limitations and quality of distance education.

> (647-O) *"My distrust of people who make political decisions negatively influences my views about distance education. My main concern is that this [distance education] is being dictated from the top with people with political agendas and I distrust them entirely. I don't think they know how learning takes place and they just want to prove they reach thousands of people and to look good. There's no question that my opposition would be based on political suspicion. "*

Political distrust was not mentioned by other respondents so the researcher suspects this is not a major consideration for them. The personal educational experience of faculty seems quite influential and warrants further investigation. Faculty who felt they benefitted greatly from on campus study want students to spend at least part of their time at university. This conservative view was also noted by Adamson (1976) in a study of biological scientists in Australia. Adamson (1976) concluded that academics with the closest ties to the traditional elite university system in Britain were opposed to both expansion and to non-traditional methods of teaching. When faculty lack information about distance education, they rely on their views of university education to form their opinions about distance education. Faculty's ideals about university education appear to be influenced by their own student experience.

Summary

This chapter introduced the results of the interview phase of the study. The fifty faculty interviewed from the three categories of support for distance education (Supportive, Divided Support, Opposed) had levels of familiarity with distance education similar to those of the survey sample. A review of the survey questions on faculty familiarity with and support for distance education during the interview resulted in a change in category for one subject's level

of familiarity and for another subject's category of support for distance education. Otherwise faculty did not report significant differences in how they would respond to the questionnaire a second time.

Several indicators of compatibility and feasibility did not vary according to faculty support for distance education. This chapter presented faculty perceptions of these indicators. Faculty were not familiar with most indicators and had not given them much thought. The subjects were in favour of providing services for adult, part-time students, although the opposed group would not include distance education. Faculty were not concerned about the calibre of distance students. Faculty were also not concerned about the quality of distance teaching materials, except for some opposed faculty who believed they were too structured and superficial.

The indicators of feasibility would influence faculty participation in distance education rather than how they would likely speak about and vote for it. Less than one-third of the fifty subjects had discussed distance education with other faculty and they were not aware of the views of administrators. The reward system for teaching versus research and faculty workload received the most comments, but the comments were seldom specific to distance education. Most faculty believed that the reward system favoured research and hindered commitment to teaching of any kind. This was perceived to negatively influence faculty participation in distance teaching, rather than how faculty would speak and vote for distance education proposals. Faculty workload was linked to the reward system and heavy workloads were also felt to adversely affect faculty participation rather than support.

The results suggest that faculty are more concerned about the process of distance education than about the quality of students or distance teaching materials. The findings also indicate that incentives for distance teaching are important to ensure faculty participation. The most acceptable way to provide incentives is to change the reward system so that teaching is

given more recognition. Faculty who become involved in distance education would likely welcome training. The extent to which the personal educational experience of faculty affects their support for distance education deserves further investigation because it helps shape faculty ideals about university education and this, in turn, forms the basis on which faculty assess distance education. This may be a more influential factor than familiarity with distance education. Faculty views about the indicators of compatibility and feasibility that did vary according to the extent of faculty support for distance education are presented in the next chapter.

CHAPTER 7

THE INTERVIEW RESULTS: THE COMPATIBILITY AND

FEASIBILITY OF DISTANCE EDUCATION

Faculty understandings of the compatibility and feasibility of distance education for degree credit are presented in this chapter. Compatibility is the perceived congruence of distance education with the beliefs and values of the individual. Feasibility is the perceived ability to successfully implement distance education. This chapter gives the descriptive analysis for three groups of faculty, according to the variation in their support for distance education as established by the survey: 1. Supportive; 2. Divided Support; 3. Opposed. A profile is provided for how each group of faculty understand accessibility and quality indicators of compatibility and the feasibility indicators of cost, technology, and library facilities. The results show that the reasons for variations in faculty support for distance education are best explained by the concept of compatibility. Feasibility factors have relatively little influence on how faculty would likely speak about and vote for distance education for degree credit.

The Research Question and Concept Indicators

The research question addressed in this chapter is, How do faculty who are supportive of, opposed to, or divided in their support for distance education understand the compatibility and feasibility of distance education? Faculty understandings are described in relation to the indicators of compatibility and feasibility in the conceptual framework for the study that varied according to the extent of faculty support for distance education noted in Table 7.1. The results are based on data from interviews with fifty subjects as described in Chapter 6. Excerpts of data from the interview summaries, with the verbatim quotes of the respondents, are given to illustrate the findings.

Table 7.1. Indicators of Compatibility and Feasibility that Varied According to the Extent of Faculty Support for Distance Education.

	Indicators of Compatibility
Accessibility	How accessible should higher education be?
	How open or selective should universities be?
Quality	Face-to-Face Interaction
	Experience on a University Campus

	Indicators of Feasibility
Resources	Cost
	Technology
	Library Facilities

The Supportive Group (n=14)

Faculty who were supportive of distance education indicated on the survey questionnaire that they would likely vote in favour of proposals to offer distance education courses for degree credit at both the undergraduate and graduate levels. Additionally, they would vote for an undergraduate program by distance education and they would probably vote for a graduate program as well.

Accessibility for All to Overcome Social Inequities and to Develop Human Resources. The majority (12 of 14 = 86%) of subjects emphasized accessibility as having the most influence on their support for distance education. They saw distance education as a means of extending access to educational opportunities which they associated with social justice.

(186-S) *"If you said, what is the basis of my whole positive view towards distance education, it is to make it more equitable, so that other people would have access to a university education.We're taking money now in taxes from the working class to educate the middle class and we can't go on that way...I'm all for change. I do think we have to work towards some equitable order where there's fairness and people have a good chance of achieving what they wish. "*

Four faculty in the supportive group spoke out spontaneously and strongly against elitism indicating that they favoured large scale or mass education.

(603-S): *"I think most universities suffer from an elite complex and they see their education in an elitist context and distance education is not elitist education. It's the other side of the coin. "*

Faculty who supported distance education believed society should help people whose life circumstances make higher education unavailable to them. Most (11=78%) also believed that society benefits by investment in human resources through higher education and they tended to have a utilitarian view of higher education.

(571-S):*"Society has a duty to help them have access to what we in the middle class sort of take for granted...I think it's unquestionably going to be of benefit to them [individuals] in that this is increasingly a specialized world, a world where you need higher and higher levels of education in order to take on any decent paying job...I think society as a whole benefits by having ...an entirely literate population... and a very well informed population. "*

(219-S):*"The wealth we have in our society is not money in the bank, or gas under the ground, it's what we have up here [in our heads], it's what people are, what they do, the ideas they have, their entrepreneurial skills and initiative, drive, ambition and whatever else. But it's all mental and that's what we've got to be investing in. "*

Furthermore, faculty in support of distance education believed that the university has a responsibility to serve all groups of people because it is a publicly funded institution.

(675-S):"*I think the university as a whole has a responsibility to educate the people. That's part of the mandate of a university...the university salaries are paid for out of taxes.* "

More Open Admissions: Give People a Chance. The majority (13=93%) of faculty in the supportive group believed that the university should be more open to a diverse range of students. They favoured giving people a second chance to obtain higher education. Hence, they would advocate flexible admissions criteria that would allow for substitute or equivalent entrance requirements and they would like to see support services to help older students adjust to university studies. Their views that admissions should be more open were congruent with their beliefs that higher education should be more accessible.

(219-S): *"My concern is that decisions made by 17 year olds should not be irrevocable."*

(792-S): *"What does it matter what they come in with...I work with some positive dolts that have master's degree....they're sort of in this little box. I think admissions have got to be far broader. "*

(521-S):*"With adult students we should be open to people coming in with more diverse backgrounds and be willing to be quite experimental with letting them try, with the appropriate support systems within the university...."*

Quality can be Achieved in Different Ways. The faculty who supported distance education were concerned about quality, but except for three subjects (21%), they all believed that different teaching methods can accomplish the same results. They were just as concerned about the quality of instruction for regular campus courses as for distance education. Some had a preferred method of teaching but they believed other methods could be just as good. They favoured a flexible and modular, rather than a structured approach to instruction.

(197-S): *"If you believe in a very, very structured education system, then you worry about whether distance education is going to work because it won't necessarily have the structure you are a believer in. If you don't believe in structured education then you don't have qualms about it. That's why I don't have any problems with it not mimicking a classical format. I think the classical format is not proven. It's just become the way people have chosen to do it.."*

(219-S): *"Basically we are talking about what the transmission process looks like. Should it be face-to-face in a large room in Vancouver, or should it be by some other vehicle....I don't think that much suffers by using other vehicles, whether it's videotapes or some other interactive video network."*

Face-to-Face Interaction: A Limitation that can be Overcome. Faculty believed interaction was important but that it could be achieved in alternate ways, especially by using technology for two-way communication. They would prefer face-to-face interaction, but they were comfortable with alternatives that would provide more educational opportunities. The use of mentors for distance students and arrangements for student meetings were suggested. One subject felt there was a lack of interaction in all undergraduate education because of high class numbers on campus. Five faculty believed strongly that students are largely self-taught and they valued self-directed learning, which they associated with distance education. Therefore, they believed students could learn on their own without a lot of face-to-face interaction.

(197-S) *"The relative lack of face-to-face interaction may be a weakness in distance education but because the majority of the North American system, certainly at the undergraduate level, is one teacher and hundreds of students, I think there isn't a particularly valid criticism in North American terms, for distance education."*

(657-S) *"When it comes right down to it, what you learn as an individual is work that you do yourself. .... Education is really up to the individual and I think that's particularly true at university."*

Experience on a University Campus is a Luxury. Eleven (78%) faculty in the supportive group believed that experience on a university campus was not essential for educational quality. They felt campus experience was probably useful for some students because it might *"add some flavour ...make it richer in some ways"* (458-S). They felt there were ways around any problems created by a lack of university campus experience, such as the on-campus workshops suggested by three people.

> (675-S): *"I think the campus experience is an interesting experience, in itself, but it certainly isn't essential. "*

> (603-S): *"I don't think you really have to damn long distance education just because you're losing campus [experience]....I wouldn't say it's essential so long as you can interject little pieces of it in some way. I wouldn't say it's crucial. "*

One person felt that the university campus life is a major adjustment for some students and that allowing people to study in their own environment is an advantage of distance education.

> (792-S): *"Experience on the university campus is wonderful for some people, but it puts some people in an environment where they feel totally threatened. I don't think a residence experience is mandatory at all, to be quality education, not at all. "*

The Cost of Distance Education is Relative. Faculty who supported distance education felt that financial resources were needed; however, they were not concerned about spending money on distance education because they believed it should be done. Six faculty (43%) stated it was a good investment and three (21%) considered the cost of distance education in relation to the cost of relocating people from rural areas to urban centres or the cost of building additional universities.

> (219-S): *"I'm not sure there's an increase in cost, netting out the savings. If there is, I'm willing to, within limits, bear that. But one has to quickly compare that to the maldistribution issue which, I think, is totally unjustified."*

(145-S): *"Cost is the reality we must face and we can't be all things to all people. But it may be, I haven't thought much about this, but it just may be that the money for building another university in this province could be better spent improving distance education because a new university will be localized as well, and some people will still be too far from it to commute. "*

Technology Makes Distance Education Feasible. Faculty who supported distance education were all positive in their approach to the use of technology. They thought technology was available to a sufficient number of people to make its use feasible. Five subjects (36%) believed technology was the essence of distance education and nine (64%) said it was very helpful, but they would like to see some personal contact.

(213-S): *"Everybody has a telephone, and everybody has got a television and an increasing number of people have computers, so that increasingly we are going to have a vehicle in place [for distance education]...it's growing at a rapid pace. That's where the change is the greatest."*

(521-S): *"I'm convinced now that distance education is going to be taking a big leap forward through the use of electronic mail. Interactive possibilities are going to be really extensive now. The technology is becoming cheaper, more widespread and we're becoming much more familiar with it. "*

Access Libraries by Computer. None of the supportive faculty had major concerns about library resources for distance students, although they thought arrangements for library materials were very important. They believed that alternate ways could be found to access resources, especially using computers.

(521-S): *"The materials have to be more self contained...this may mean that some types of courses are more difficult to do. However, interlibrary loan is now extensive and many libraries are well equipped. One of the messages I have is to piggyback, where you can, onto available technologies and existing systems. And there may be existing library systems that overcome what problems you might have in courses that are heavily library reliant. "*

Profile of the Supportive Group

Faculty who supported distance education understood it as being compatible with their beliefs and values regarding accessibility and educational quality (see Table 7.2). They saw universities as publicly funded institutions that have a responsibility to serve the public at large, rather than a select group of students. They believed higher education develops human resources and this contributes to society as a whole. They saw distance education as a way of extending access to higher education by overcoming financial, geographic, and social barriers.

Faculty in the supportive group were optimistic that distance education can achieve the same quality as conventional, on-campus education. Their support assumed that the quality of distance education could be equivalent to on-campus instruction and that the learning outcomes could be equal. They believed that different teaching methods can achieve similar learning outcomes and that experience on a university campus is not essential. They also understood that distance education is feasible to implement with the help of communications technology. They advocated creative instructional design with the use of technology to overcome the aspects of distance education that may compromise quality, particularly the lack of face-to-face interaction.

Table 7.2.. How Faculty Who Supported Distance Education Understood Its Compatibility
and Feasibility.

Compatibility

Accessibility   Distance education is a means of extending access to higher education

Educational opportunities should be equally distributed

The university is publicly funded and should serve all citizens

Human resources are the wealth in society and are developed through
education

The university should be more open to students

Quality   Distance education is a teaching method

Different teaching methods can have the same outcomes

Sufficient interaction can be arranged

Experience on university campus is a luxury

Feasibility

The cost is worth the investment

Technology is very helpful and widely available

Library facilities can be arranged

The Divided Support Group (n=22)

The twenty-two subjects in the divided support group split their positive and negative votes
for distance education by courses versus programs or by undergraduate versus graduate
distance education. Eight (36%) would vote for courses at both the undergraduate and
graduate levels, but they would not support a distance education program at either level.
Thirteen (59%) would likely vote for a complete undergraduate degree program by distance
education, but would not vote for any distance education for graduate study. One person held
opposite views and would support graduate, but not undergraduate distance education. This

subject reasoned that distance study requires self-directed students who already have university experience and that graduate students can benefit from experts outside the university.

More Accessibility for Disadvantaged Groups. Most (20=90%) respondents in the divided support group believed higher education should be more accessible to those with the ability to benefit and the desire to study. Fourteen (64%) of them linked their notions about accessibility to concern for disadvantaged groups. They believed many people may be capable of higher education but are denied opportunities due to their life circumstances. The most frequently mentioned barriers to university education were geographic and financial and they believed distance education could help overcome these barriers. They also mentioned the need for more accessibility for those with sociocultural disadvantages, for women, and for the disabled. Four subjects (18%) believed university education was a privilege, not a right, but they still wanted to increase accessibility for the gifted people in disadvantaged groups.

(575-D) *"Higher education should be accessible to anybody who has the intelligence to benefit and the desire. ....I think it's a shame that kids from the rural areas are at a real disadvantage in coming to university because it's just more expensive for them. ...I don't think that university education should be universal. I think that it should be for the bright students, for the people who can benefit from it....and not everybody is smart enough to go to university. That's perhaps a harsh thing to say but it's true. I believe in equal opportunities for people who have intelligence and I think that if a person has the desire and the ability that it's a great shame that they shouldn't profit from that. "*

(337-D) *"There are capable people now who just don't think of university because they live in a reasonably remote location. We need to encourage these people to take higher education."*

Faculty in the divided support group had mixed views about the purpose of university education. They saw university education as the development of character (n=8), or related to coping with a complex society and employment (n=7), or a mixture of both (n=7). Those who

linked education more closely to employment perceived university education as more of a right than a privilege.

> (575-D) *"I really think that the purpose of the university is to give. what was called....a small "l" liberal education. I don't think the purpose of the university is to turn out technocrats ...people who get a piece of paper so they can be employed. "*

> (176-D) *"You only have to look at the way employment is going over the next 5 to 10 to 20 years, to realize that higher education has to be a serious option. It's not just a luxury which we can get away with giving to people in select regions of the province, or even nationally, because we are going to need everyone we can get [to be educated]. I guess it's just the way you view the available talent. I think it's a crying shame for someone, simply because of where they grew up, who has the intellect and the desire to do something, to not even consider it [higher education] as a serious option. "*

> (110-D) *"Education is very useful economically but also [it's important] just to grow. It's just such a wonderful experience."*

More Openness for Capable People. The majority (14=64%) of respondents in the divided support group believed that the university should be more open to those with talent who can benefit. Three (14%) believed the selection used now was suitable and four (18%) stated more openness was limited by funding practicalities. Two (9%) believed admissions should be more open for undergraduates, but more selective for graduate students. Overall, the divided support group favoured admitting more talented people to university from rural areas and disadvantaged groups.

> (292-D) *"There is a good case for basing it [selection for admission] on merit as much as you can, but also maybe being sensitive to disadvantaged groups and according them preferential treatment. "*

> (331-D) *"I think universities should be more open but if you have limited funds, to only provide for a certain number of students I think you have to be selective to only train those that will succeed."*

Three respondents believed that lack of proper high school preparation is a problem and that the university should be selective because not all students have the prerequisite skills needed for university study.

> (257-D) *"The social injustice, to me, is that we're not teaching properly at the levels before you ever get to university...some of the push toward university accessibility, that everyone should have a college education, I don't really agree with. I think that everyone should get a better training out of the system before they get to be 18 and that would help immensely."*

Quality: Something is Better Than Nothing. Quality was a major concern of faculty who gave divided support to distance education. They were concerned about providing accessibility to more people from disadvantaged groups, but they were uncertain that distance education could give the quality of education provided on a university campus. Four (18%) respondents emphasized accessibility rather than quality. Nine (41%) subjects emphasized quality at the expense of accessibility and another nine felt a definite conflict between the two. They were torn between the ideal and the real and saw distance education as a trade-off or a last resort which would be better than nothing. They spoke about the lack of face-to-face interaction and experience on a university campus as serious limitations of distance education. They looked for ways to increase accessibility but not at the expense of compromising quality; however, some noted that the quality of education on a university campus had deteriorated or changed in nature with university expansion.

> (270-D) *"I don't think that the standards should be any less for distance education. They may be different, but they can't be less. The standards I think have to be maintained...otherwise a university isn't a university. "*

(700-D) *"I think that the loss of the face-to-face experience is a serious negative, but on the other hand, it seems to me that, if it's not possible, then it's surely hugely valuable to have what distance education offers anyway. As the quality of the undergraduate experience on the campus is being rapidly eroded in this dimension [interaction], there is less and less difference between the interaction that's achievable on campus, as compared with the interaction that's achievable through distance education. "*

(375-D) *"One real disadvantage of distance education is that they're [students] not in the university environment and they don't have the interaction, the classroom interaction the discussions....while they're getting some of the material, sometimes they don't use it , ... think about it, and work with it as much as they might if they were actually at a university. So it's a second choice for those who absolutely cannot come or make it for many other reasons...I see it...like a last resort."*

Quality is Linked to The Type of Course. Respondents who were divided in their support for distance education frequently stated that their support would depend on the course or program of study. The largest division was according to the level of course or program. The first two introductory years of undergraduate education were considered suitable by everyone in the group. However, none of them believed that a graduate degree could be done entirely at a distance. The support of twelve (54%) respondents would depend upon the type of content and learning that was required in a course. Difficulties conducting laboratory courses at a distance were the most frequently mentioned (n=5) and two said laboratory courses should not be done at a distance. Five other faculty (23%) commented that courses requiring dialogue, debate, and interpersonal skills were not suitable for distance education.

(257-D) *"I think that you can't do for the student the same things in a distance education program that you can when you have a laboratory setting and they can come in ...handle the equipment, and learn techniques. There's a lot of hands-on exposure to things."*

(437-D) *"I think that areas that require primarily cognitive skills could be well taught at a distance, but.some of the skills we're trying to help students acquire are interpersonal skills that I think are best taught when there's a group and there's direct feedback and role playing and I think that's a lot more difficult. "*

Face-to-Face Interaction: A Necessity for Graduate Students. Twenty respondents (91%) were concerned about the lack of face-to-face interaction in distance education and this was the main reason why faculty would not support graduate education at a distance. Faculty believed that the immediacy and spontaneity of face-to-face interaction was important for both learning and teaching and that these were lost when communicating by other means in distance education. They believed students are challenged in groups and stimulated by the questions and discussions of others. This results in an understanding and critical appreciation of the material that will be retained, rather than learning factual material which is forgotten after examinations.

(270-D) *"I think there's so much that goes on between the student and teacher in the one-to-one situation. That, I think, would be a real loss....especially in small seminars I can tell whether somebody understands something or not."*

(229-D) *"Teaching in the humanities and the arts, you have a sense that an important dimension of an education of a student is the face-to-face contact with an instructor and with other students, in say a seminar situation or a discussion situation..... Graduate students are learning certain skills that can't be taught except in a face-to-face way, debating skills for example. .... so the experience of being in seminar groups is a decisive one for graduate students."*

(719-D) *"Also, in the more theoretical courses,* where we put information *from several disciplines together ,......that is enhanced ...by talking out loud and having other people challenge your ideas. ...it's the challenging of your own ideas, and...positions, [that] I think is missing in distance education. "*

Experience with the Discipline on a University Campus. Respondents who supported courses but not programs at a distance believed that some time should be spent on a university campus because of the experience it provides with the discipline, more so than

with other activities on the university campus outside the department. Sixteen (73%) faculty believed graduate students should spend some time on a university campus mainly for the interaction with the research supervisor, other graduate students, and experts that come to the department to present special seminars. They felt a personal relationship and frequent, on-going contact with the research supervisor were necessary. Faculty in the sciences especially talked about the research supervisor as a mentor, and about graduate education as apprenticeship training in the discipline.

> (176-D) *"the development and training of a student in [this science] is intimately tied up with a fairly close personal relationship with the research supervisor and the ability to spend extended periods of time in the laboratory working on a dedicated project. It is very difficult to imagine that you could do that except in an environment like this because you need so much support."*

> (257-D) *"One of the important things as a graduate student is that you get into your department and you talk to the other professors, and ...other graduate students, ...and its often the peer contact, or the colleagues that you make there, that are just as important a part of the graduate experience as any course you'll ever take or any book you'll ever read...I think you lose that in a distance program."*

Those who supported an undergraduate program at a distance did not believe campus experience was very important at that level. Some noted that the value of campus experience has almost vanished with the growth of universities and the increased numbers of working and commuting, rather than residential, students. Faculty believed that experience on a university campus often provides a socialization and growing up experience for younger students, but that this was not usually necessary for older or distance students.

> (434-D) *"This idea that you sit around and absorb something from the university is a thing of the past. We've become factories, educational factories. ... we just churn these people out with a certain level of knowledge and they have to make what they can of that. Students don't sit around any more and discuss the nature of life because they are too busy. "*

(110-D) *"Here, there are a lot of students who commute from a long distance. They may not get any campus experience because they are not interacting with anyone. Essentially they are almost doing it ...off-campus; they get their oral lectures and leave....the best we can do is give them an opportunity [for interaction on-campus] we can't force it and if we force it, it wouldn't happen anyway. It's a pity it's a commuter university."*

The Cost Could be a Problem. Ten subjects (45%) were concerned about the cost of distance education. Another five (23%) noted that concerns about cost are related to whether or not distance education is considered a good thing to do. Seven subjects (32%) did not comment. The concerns of faculty were general ones: that more faculty would be needed, that technology would be costly, and that economies of scale were impossible in advanced courses. Notably, five people (23%) in this group commented that the best use of resources would be to have distance education conducted by a separate institution. These were the only subjects in the sample that made such comments.

(434-D) *"We have a real opportunity but I think we have to have a set up totally separate from existing universities. "*

(719-D) *"The cost of distance education presents a complicated resource allocation issue that requires thought. It's unfortunate we have to make choices, but we do. "*

Communications Technology: A Semi-Substitute. Most (13=59%) respondents in the divided support group believed that communications technology could provide a semi-substitute for face-to-face interaction but that personal contact was still needed for effective learning. These respondents saw learning as dialogue and noted that the learning process was different without face-to-face interaction. They felt the use of technology for communication could help relieve student isolation, and make two-way communication quicker and easier than by correspondence. They also noted that technology could be frustrating, complex, costly, and unavailable to some students. Two respondents were

negative about technology, calling it retrograde and gimmicky. The other seven respondents
(32%) were positive about the use of technology for interaction, but four of these (18%)
believed that considerable development, taking up to 20 years, was needed before technology
could provide sufficient interaction. One subject saw technology as eventually transforming
education when a new communications infrastructure is eventually established in society by
government, industry, and education.

> (343-D) *"I'm a little bit wary of that..[technology]..It can answer your needs in
> the occasional situation, but I feel more comfortable with it on a very, very minor
> level."*

> (176-D) *"Technology helps overcome some of the disadvantages of distance
> education so that students are not strictly isolated. If you have the ability to
> interact when you need to, then maybe there's a certain minimum level of contact
> that could be maintained ."*

Access to Library Facilities is a Problem for Advanced Courses. The majority of
respondents (13=59%) believed that access to library facilities was a problem. Seven people
(32%) stated computer access and the use of community libraries could solve the problem
sufficiently for introductory, undergraduate courses. However, the use of the library on
campus was felt necessary for more advanced courses. They spoke generally about
difficulties and one noted the importance of browsing. The respondents felt that in several
years technology might be developed enough for more sophisticated library use.

> (364-D) *"Library facilities would be a problem and that might be a good reason
> for concentrating distance education in the first and second years, when you can
> go a good part of the way with textbooks. "*

> (700-D) *"I think we are in the middle of a revolution of types of libraries.....I
> regard the library, in whatever form, as the essential laboratory for the
> university and it seems to me that distance education is enormously assisted by
> technological developments on this front. "*

Profile of the Divided Support Group

Faculty who were divided in their support for distance education understood distance education as compatible with their conservative beliefs and values about accessibility, but not fully compatible with their ideals of educational quality (see Table 7.3). The majority believed that a university education is for both personal development and employment.They wanted to increase access to university education for capable people from disadvantaged groups. Therefore, they believed that the university should be more open to certain students. However, the majority of them were also concerned about maintaining educational quality. This created a definite conflict for many, because they believed that distance education was of inferior quality due to the lack of face-to-face interaction. They would compromise and support some courses, or an undergraduate program, at a distance to provide more accessibility. None would support a graduate program by distance education.

The majority wanted graduate students to spend time on a university campus to become part of a learning group and a departmental or disciplinary environment, rather than a part of overall university campus activities. The availability of communications technology for distance education had a minimal, but positive influence on their views. Without some face-to-face interaction, they believed that the learning process was different and not as effective. Their primary concerns were about the compatibility of distance education with their beliefs and values regarding educational quality, rather than feasibility concerns.

Table 7.3. How Faculty Who are Divided in Their Support for Distance Education Understood Its Compatibility and Feasibility.

<u>Compatibility</u>

Accessibility   Capable people from disadvantaged groups should have more access to
university education

University education is for both personal development and employment

The university should be more open to certain students

Quality   Distance education has serious limitations

Some courses would be suitable but not others

Some face-to-face interaction is essential

Departmental and disciplinary experience are essential

<u>Feasibility</u>

The cost presents a difficult resource allocation choice

Technology is of some, but minimal help

Library facilities are a problem in advanced courses

The Opposed Group (n=14)

Ten respondents (71%) in the opposed group would not vote in favour of any university credit courses by distance education for degree credit. Four subjects (29%) would probably vote for a course but that is all they would consider supporting.

    <u>More Accessibility to Other Kinds of Education</u>. The majority (8=57%) of faculty in the opposed group believed that access to university education is more of a privilege than a basic right of citizens. They would advocate more educational opportunities in other institutions

instead of increasing accessibility to university. They objected to the idea of mass education at the university level.

> (740-O) *"The idea ...that everyone has a right to a university education is foolish. ....I think everybody has a right to an education at the level at which they can perform. Now, if they are not capable of performing, then they obviously have no right to it. "*

> (174-O) *"What we are lacking in society is a multitude of institutions...a multitude of many more varieties of higher educational institutions,...such as community colleges. I think that mass education should take place at some level ...less than a bachelors degree ..."*

> (463-O) *"The democratic problem of Canada particularly...is that we think that this...equality of opportunity means that there's some equality of intellect and it's totally crazy. "*

A minority (6=43%) of faculty in the opposed group favoured a higher participation rate and more accessibility to higher education, but they were sceptical that this was possible at the university level without compromising quality. They felt that universal education was an ideal they would like to support, and they were caught in an "ideal versus real" conflict.

> (252-O) *" it's the ideal of universal education versus the practical components of doing that which is much more difficult. I almost look at it [higher education] as a basic right...equivalent to food and housing and medical care...and being a basic right, I don't know how I'd deal with it."*

University Education is for a Special Group. The majority (8=57%) of faculty who opposed distance education believed that universities should be selective in student admissions and commented that university education is for an elite group. They believed high university admission standards safeguard quality. Other subjects in the group linked their notions about selectivity to the availability of educational opportunities in other institutions.

(572-O) *"I think it's important to get good quality people into the system, then when they go out you really have superior people, to compete as world class scientists, or in whatever profession. ....I guess maybe I can be faulted in thinking that the university should be an elite place. I think it should be an elite place. ....we put our best people there so that the next generation of people will come out even better. "*

(740-O) *"The best minds are the ones that have to get first call, on the highest possible kind of education. ...It sounds awfully exclusive, and I don't really think I am, except that I'm concerned about the best people getting the best possible education. "*

(463-O) *"I think higher education could be organized as a tiered system. It makes sense to ...try to segregate people by intellectual achievement. ....You can give people some opportunity to redeem themselves but the principle has to be that, ...we want to select students at a certain level for certain kinds of activities...So I think the selection process ought to be fairly strong and I think there ought to be a variety of opportunities. "*

A minority of faculty (6=43%) would agree with more open admissions but they believed selection criteria would need to safeguard standards in order to admit people with "reasonable backgrounds" (164-O). Four faculty wanted to restrict access to highly motivated students. The subjects realized that selection was contrary to the ideal of greater accessibility.

(252-O) *"The question of how open or selective the university should be to students is a difficult one because the university should have standards. A degree should mean that graduates have achieved a certain level of competence in their field. However, that may go against the idea of universal education because some people may not meet the standards for admission."*

(499-O) *"It should not be for people who don't want to be here but haven't anything else to do. In that regard I don't think it [higher education] should be as accessible as it is. "*

Quality not Quantity. Faculty opposed to distance education placed the major emphasis on quality. They believed firmly that the educational processes involved in both face-to-face interaction and experience on a university campus were essential to quality.

> (456-O) *"Most of the learning is in the process rather than the product you end up with. "*

Most (10=71%) of the opposed faculty thought of distance education as being incompatible with their ideas about university education and they thought about standards in terms of what they believed a university education should be. They believed university education should focus on the development of character rather than the development of job skills. They saw distance education as incompatible with this because the development of character requires a broad liberal education with face-to-face interaction and socialization on a university campus.

> (740-O) *"I think it [standards] must continue to become higher ...we are a community of scholars and I would like for it to be that. "*

> (435-O) *"I think that universities have to jealously guard standards. I mean, they're offering a product and it's extremely important that you're as clear as possible about what that product is and what it means. I think you have an obligation to employers and you have an obligation to students who have gone through programs, and have those degrees, that you don't then take actions that dilute the degree that they have. ... In some ways that does make universities appear to be, and in many respects they are, rather elite institutions, but I think there's a role for elite institutions.... There's a role for all types of education. "*

> (463-O) *"I think the central thing in a university ought to be the faculty of arts and science...this is what a university is all about. ...[for example] business has almost nothing to do with the university. It's probably the antithesis of what a university ought to be about...If they want a business school let General Motors run it. We don't need to run it out here. ... You've got to have a central vision of the university which, to me, is to produce education in arts and science for your students. The professional schools ought to be viewed as adjunct to that instead of central. "*

The opposed faculty who wanted more accessibility believed distance education was not suitable because the learning outcomes would not be equal. Distance education was deemed appropriate for the distribution of general information to the population or, at most, for an undergraduate course that covered factual content.

> (280-O) *"Distance education can provide opportunities but what I doubt is the final product. I think they would be second rate graduates. You might teach a course that is extremely structured and filled with rules by distance education. However, I suspect that when you compare the final product, the student who has learned from distance education and one who has learned in class, the difference is so great that you wonder, in a competitive job market, what chances the person who has gone through distance education has. When it is the basic education for people anywhere who, independently of a job, need education, distance education is valuable."*

There is no Substitute for Face-to-Face Interaction. All of the faculty who opposed distance education believed that it was incompatible with their ideas about the value of personal, spontaneous interaction. They believed that students learn from the questions and discussions of others and that this cannot occur in the relative isolation of distance education.

> (252-O) *"The spontaneous interaction between students working in a class is an important aspect of learning. I think a lot of the information that students get, and the answers to questions ...that they get, happens in the context of the classroom,....someone asks a question while the material is being presented and this sort of sparks either a discussion or other questions in the students minds. Asking the questions later after the material is presented, as in distance education, is probably not as effective."*

(740-O) *"Education is understanding and unless there is interaction with other people, I find it almost impossible to assume that anything you would get from distance education would be a real education. ....It's just not the same as ...bumping up against group interaction and ideas. I just don't think there's enough student interaction [in distance education] ...and ferment available, no yeast...and I think one ends up with a wonderful piece of flatbread. .... Unless things can be discussed extensively, actively, sometimes vociferously, I don't think it's really possible for anyone to gain from an education. "*

Four faculty(29%) expressed more moderate views and were willing to consider what courses could be taught with less interaction. Twelve people (86%) believed interaction was even more important for senior undergraduate and graduate studies than for introductory undergraduate courses.

(164-O) *"Subjects where discussion doesn't play a large role are suitable for distance education but courses that involve a lot of subjective material are not. I think it's [distance education] a poor substitute for a classroom experience where you have a chance to ask questions...and where you see what a scholar in the field thinks about something. "*

(647-O) *"I won't even think about distance learning at the graduate level. It's an absurdity. The material is much more advanced, you've got to be able to ask questions constantly, you just get hung up if you're trying to piece things together yourself at a distance. I mean it's a joke at least in the areas I know., mathematics ,science, I would be surprised if you find anyone who would say, sure there are some graduate courses that would work [at a distance]. "*

The University Campus Experience is Essential. The majority (10=71%) of faculty opposed to distance education believed that experience studying on a university campus is an essential aspect of university degree education. Two faculty (14%) felt campus experience was useful, but perhaps not essential, and another two faculty would consider limiting the amount of study time on campus required for a degree. Faculty associated the campus experience more with learning, broadening one's horizons, and building personal networks

than with socialization, although that was considered important especially for young students. They believed the support students give each other is also important.

> (164-O) *"I think education is a total experience and very often the things you learn at university outside the classroom are the best things. ...you forget most of what you learn in the classroom as far as facts are concerned, but you don't forget the attitudes, ...the personalities and you remember the feelings that prevailed in the class ...the discussions that went on outside of class; ...working in the library, ...looking at the stacks. "*

> (204-O) *"It was the whole environment, it was mixing with people of like mind, of like intelligence, with whom you could play bridge, chess, ...all sorts of things ...quite apart from the actual learning of your topic. When you reduce it to that, it's a polytechnic to me. If all you want is the information, in your subject ...to perform a job,... it's no longer a university in the sense that I understand it. It becomes a polytechnic school. "*

> (280-O) *"The atmosphere and environment feeds scholarly attitudes towards things, a scholarly outlook."*

Ideals Before Cost and Other Practicalities. Faculty who opposed distance education were not very concerned about feasibility factors. Two respondents (14%) understood the feasibility of distance education as a major negative influence on their views. Others tended to believe that if distance education were compatible, ways could be found to address feasibility concerns, including the cost. Five respondents (36%) believed that any money available for distance education should be used to bring students to the university.

> (280-O) *"I never think of ideas in terms of money. I think that anything which is right on the basis of an idea, can be worked out in terms of money. If it is a worthwhile idea there is a way of realizing it. So the important thing is to decide whether the idea is worthwhile and then resources can be found. "*

> (174-O) *"It seems to me that maybe the money we would spend in providing these facilities [for distance education] would be better spent in subsidizing the person to come to a central location and go into university."*

Technology is Retrogressive and Dehumanizing. A minority of respondents (4 =29%) in the opposed group believed that technology could be of some help in distance education and one person believed technology made distance education feasible. The other six of the eleven faculty who commented on technology believed it was retrogressive. They would not want to teach with technology themselves. These faculty believed spontaneous interaction was important to quality education and that interaction by technology was too structured to be beneficial. There simply was no substitute for face-to-face interaction.

> (463-O) *"The availability of communications technology does not make me feel distance education is practical. I think of this technology as retrogression rather than progression....There's nothing worse to me than a telephone.conference call. I hate the telephone...It's all totally dehumanizing....You use these things only because you're forced to do it....I don't think they help much. I think they are a kind of one per cent improvement over nothing. "*

> (204-O) *"I would never do anything but go to the room where the student is sitting. .... The feeling is completely different from being in the room. It's like listening to your tape recorder as opposed to going and hearing a live concert. You are not there and you don't feel the atmosphere. Personally, I do not even use the telephone unless I have to and to me the idea of doing things through machines rather than having one on one contact with someone is abhorrent. "*

Library Browsing is Important. The majority of respondents (57%) in the opposed group believed that the lack of opportunities to browse in the library was a serious problem with distance education They believed that the process of wandering around in the library was important and that sending students reference materials amounted to spoon feeding. Four subjects felt technology might help, especially when computer access to libraries is more developed. Two subjects felt that library use for distance students would not be a great problem.

(740-O) *"Library materials would have to be sent to the students at a terrible financial burden for the university and would amount to professors feeding the students what they think is important, instead of students investigating and finding out on their own. The act and process of searching in the library is often more important than what one finds."*

(164-O) *"Some of the best books you read are not the ones on your courses, they're the ones you came across through other students or on library shelves..."*

Profile of the Opposed Group

Faculty who opposed distance education believed it was incompatible with their beliefs about educational quality (see Table 7.4). They were more concerned about the quality than the quantity of higher education. They viewed distance education as suitable for the distribution of information to the population in general and, at the most, for an introductory level undergraduate course.

The majority (8=57%) of faculty who opposed distance education did not associate it with equal educational opportunities because they did not believe that everyone could benefit equally from higher education. They advocated selecting bright, capable students and educating them to become the future generation of leaders. The minority (6=43%) wanted more accessibility to higher education, but they also wanted to keep standards high and to admit capable, motivated students. Therefore, they advocated more educational opportunities in institutions other than universities. They talked about university education as a liberal education in the arts and sciences and denounced utilitarian trends in universities.

The subjects placed their priority emphasis on quality and they believed that face-to-face interaction and experience on a university campus were essential to quality. They viewed communications technology as dehumanizing and they noted that browsing in the library is an

important part of university education. They would prefer to have money used to bring students to the university rather than spend money on distance education.

Table 7.4. How Faculty Who Are Opposed to Distance Education Understood Its Compatibility and Feasibility.

<u>Compatibility</u>

Accessibility   Distance education is a way to distribute information
                   Accessibility to education should be increased in institutions other than the university
                   University education should develop the students
                   The university should select capable, motivated students

Quality   Distance education is not university education
                   There is no substitute for face-to-face interaction
                   Experience on a university campus is essential

<u>Feasibility</u>

Spend money to relocate students to a university campus
Technology is dehumanizing
Library browsing is important to university education

<u>Conclusions about The Compatibility and Feasibility of Distance Education</u>

Table 7.5 summarizes whether or not faculty in the three groups of support for distance education understood distance education as a desirable thing to do (compatible) and as practical to implement (feasible) based on the indicators investigated in this study.

Table 7.5. How Faculty Understood the Compatibility and Feasibility of Distance Education According to the Extent of Their Support for It.

Extent of Support	Compatibility	Feasibility
Supportive	Yes Access to university education should be extended	Yes
Divided	Somewhat Quality is traded-off for increased accessibility	Somewhat For some courses Not for graduate degrees
Opposed	No Distance education is not university education	No

Faculty who supported distance education understood it as both compatible and feasible, while those who were opposed did not see distance education as either compatible or feasible. The supportive faculty believed that distance education is an important force for social equity and they placed accessibility concerns ahead of quality. They believed that quality can be achieved in distance education because different teaching methods can have the same outcomes. Faculty who gave divided support to distance education saw it as somewhat compatible because they were concerned about extending educational opportunities, even though they did not believe that a lot of distance education was a good thing because of their concerns about quality. Therefore, they saw distance education as having limited feasibility and claimed it was suitable for some degree courses and programs. Faculty who were opposed to distance education did not believe it was suitable for credit

courses because they believed that university study requires face-to-face interaction and experience on a university campus.

Summary

This chapter presented the descriptive analysis of how faculty understood the compatibility and feasibility of distance education according to the extent of their support for distance education. Those who supported distance education believed it was compatible with their beliefs that university education should be more accessible. They emphasized accessibility over quality because they believed that different teaching methods achieve the same results. The supportive group also believed that distance education is feasible and that technology is very helpful. The divided support group understood distance education as being somewhat compatible with their beliefs about accessibility and quality and somewhat feasible with the use of technology to maintain contact with the students. They would be willing to compromise what they considered the ideal in quality in order to provide more educational opportunities for people. Faculty who opposed distance education understood it as incompatible with their ideals of university education and they did not find it feasible either. The opposed group emphasized quality which they believed requires face-to-face interaction and experience on a university campus.

The concept of compatibility provides the most useful explanation for why some faculty support distance education while others do not. Faculty support for distance education is largely determined by the compatibility of distance education with faculty beliefs and values about the purposes of higher education and what constitutes a university education. Feasibility was of relatively little concern for any group and most comments about feasibility were related more to beliefs about education, rather than to the practicalities of implementation.

Lack of familiarity with distance education may account for some of this absence of concern for feasibility, but the subjects who were highly familiar with distance education did not talk as much about feasibility as compatibility issues either. Additionally, faculty in the supportive group with low familiarity with distance education supported it because they believed that university education should be more accessible to people.

The descriptive findings of the interviews confirmed and extended the survey findings. The survey found that although familiarity with distance education was positively associated with faculty support for distance education, one fifth of cases could not be explained by the concept of familiarity alone. The interviews confirmed that compatibility gives a broader explanation. In the open comment responses to the survey question about the reasons for faculty votes for distance education statements about accessibility and quality were by far the most frequent. Most faculty who gave accessibility reasons for their votes on the questionnaire supported distance education. There were only 22 comments about feasibility which suggested that the practicalities of implementation were not major concerns. This was also confirmed by the relative lack of comments about feasibility indicators in the interviews. The comparative analysis of the interviews with faculty in the three groups of support for distance education, given in the next chapter, extends the results to provide a broader theoretical base for the reasons why some faculty support distance education while others do not.

CHAPTER 8

THE INTERVIEW RESULTS: COMPARATIVE ANALYSIS

This chapter gives the results of a comparative analysis of how respondents in the three groups of support for distance education (supportive, divided, and opposed) understood the compatibility and feasibility of distance education in order to derive meaning from the differences described in Chapter 7. The analysis uses the notion of elite versus mass higher education to draw conclusions about the reasons why some faculty support distance education while others do not. Faculty in the supportive group emphasized the beliefs and values associated with mass education while those who opposed distance education subscribed more to the ideals of elite university education. Faculty in the divided support group expressed a conflict between the desire to increase accessibility, characteristic of mass education, and the desire to maintain high standards associated with elite education. They would support modest expansion but oppose transformation of university education. The results of the comparative analysis also suggest that faculty hold different conceptions of distance education which are related to the extent they are likely to support distance education.

Comparative Analysis

The comparative analysis addressed the following research question:

What are the differences in faculty understandings of the compatibility and feasibility of distance education among those faculty who are supportive of, opposed to, or divided in their support for distance education?

The analysis compared the understandings of faculty along several dimensions that revealed

distinct variations: 1. the emphasis given to accessibility and quality issues; 2. views about higher education; 3. views about instruction; 4. the purposes and need for student experience on a university campus; 5. the usefulness of technology for interaction.

The comparative analysis extended beyond the details of the descriptive analysis to a more abstract and higher level of generality. It used Trow's (1973) conception of the transition from elite to mass higher education and Clark's (1983) ideas about value conflict and compromise in higher education. Notions about the social connectedness of different research styles (Biglan, 1973; Becher, 1989) were used to explain the lack of support for distance education in the hard, pure (natural sciences) departments. There were some within group, as well as between group, variations in faculty understandings about the compatibility and feasibility indicators. Hence, the specifics of each individual case may not be reflected entirely by the more general notions. However, the concepts used in the comparative analysis capture, in simplified form, the understandings of the majority of individual cases within each group, as well as how they vary from the other groups.

The transition from elite to mass higher education consists of a broad pattern of development and problems associated with the expansion, democratization and diversification of higher education since the middle of the 1960s (Halsey & Trow, 1971; Trow, 1973; Trow, 1987). It includes significant changes in the beliefs and values associated with the provision of university education. Mass higher education differs from elite qualitatively as well as quantitatively. Of most relevance to this analysis are differences in attitudes towards access to higher education, the functions of higher education, the character of academic standards, the forms of instruction, and in the relationships between students and faculty (Trow, 1973, p. 6).

In elite higher education access is limited and seen as a privilege of either birth, or talent, or both. Selection is meritocratic and the student body is relatively homogenous. Mass higher

education qualifies its meritocratic selection and uses compensatory programs to admit a more diverse population with the purpose of reducing social inequities. The function of higher education in an elite system is to shape the mind and character of the ruling class and to prepare students for broad elite roles. In mass higher education, the emphasis shifts to the transmission of knowledge and skills to prepare students to function in more specific technical and professional roles. The emphasis is on educating the whole population rather than the selected best and the aim is to maximize the adaptability of the society for rapid social and technical change. Education is seen as more of a right than a privilege in a mass system.

The standards in mass higher education are more diverse than the uniform and high standards of elite education. The main forms of instruction in elite universities are tutorials and seminars where personal student-teacher interaction is possible. The emphasis on personal relationships in an elite system is compatible with the purpose of shaping the mind and character of the students. Mass education uses large lectures and more modular, flexible approaches to instruction. The boundaries between formal education and learning from life experience are less clear in mass education where formal education is seen as another kind of experience that helps people cope with life problems. Elite universities have more residential community life than mass institutions which have a broader mixture of residential and commuting students with less sense of shared values, norms, and less identification with a learning community than in an elite institution (Trow, 1973; 1987).

The Emphasis on Accessibility Versus Quality

The relative emphasis faculty in the different groups of support for distance education placed on accessibility and quality issues illustrates the different values, conflicts, and compromises associated with a mass versus an elite conception of university education. A mass system of higher education places value on more open access to larger numbers of the population. It is believed that this conflicts with the values of an elite system which is more selective and

focuses on preparing a smaller number with the highest of academic standards. The central dilemma is that "more means worse" (Trow, 1987, p. 274). Most faculty who support distance education emphasized accessibility values, while those who opposed distance education viewed quality as the priority (Table 8.1). Faculty who were divided in their support for distance education tried to balance values about both accessibility and quality and many expressed a value conflict that called for a compromise of their ideal notions about quality to avoid denying educational opportunities to people.

> (628-D) *"I don't think it's as good an education as you get on campus. On the other hand, you're giving much more accessibility and so you've got this trade off...I think it's a good trade off for at least part of the way...and there are things you can do to increase accessibility while giving as good an experience, an educational experience as possible. "*

Table 8.1. Respondents Emphasis on Accessibility and Quality Issues

	Categories of Support		
	Supportive	Divided Support	Opposed
Emphasis	n %	n %	n %
Accessibility Emphasized	11 (79%)	4 (18%)	0 (0%)
Quality Emphasized	2 (14%)	9 (41%)	13 (93%)
Both/ Conflict	1 (7%)	9 (41%)	1 (7%)
Total n=	14	22	14

The views faculty expressed regarding accessibility and quality also reflected the kind of conflict and accommodation of values that Clark (1983) describes in higher education. Different values exist around equity or social justice and competence. Justice presses for open admission while competence argues for selection. Therefore, many contradictions and

compromises in values exist in higher education regarding openness versus selection, elitist versus democratic, flexible versus rigid, and traditional versus modern approaches (Clark, 1983, p. 7).

Faculty who supported distance education understood it as compatible with their values of increasing educational opportunities and this was where they placed their emphasis. They believed in a mass system of higher education. Faculty who were divided in their support for distance education were willing to make some trade-offs in ideal quality to provide more accessibility. Faculty who were opposed placed their priorities firmly with quality because they subscribed to the beliefs and values of an elite system. All faculty were concerned about quality, but some were more concerned than others that quality could be achieved via distance education. Faculty views about the purpose of university education, acceptable forms of instruction, and the helpfulness of communications technology helped explain these differences.

Views About Higher Education

Table 8.2 outlines faculty views about the purpose of higher education according to the extent of their support for distance education and the emphasis on access or quality issues.

Table 8.2. Faculty Views of Higher Education According to the Extent of their Support for Distance Education.

Extent of Support	Purpose of University Education	Quality or Access Emphasis	Mass or Elite
Supportive	Investment in human resources; social mobility; coping with life	Access	Mass
Divided	Both Personal and career development	Conflict	Mixed
Opposed	Development of character as scholars and leaders	Quality	Elite

Faculty who supported distance education associated it with a mass system that emphasizes accessibility in order to develop human resources in the population, achieve social equity, and adapt to rapid societal change. Those who were divided in their support for distance education tended to combine the values and purposes of both mass and elite higher education. Faculty in this group were in what Trow (1973) referred to as a mixed phase conflict where the functions and values of fundamentally different approaches to higher education co-exist. The divided support group wanted to capture the best of both systems, especially to maintain quality while increasing accessibility. They believed distance education could do this, but only to a limited extent. Therefore, they would support distance education for courses as part of a degree program, or at most, for an undergraduate, but not graduate, program by distance education. Those who were divided in their support saw the purpose of university education as the development of both the person and employment or professional skills. Faculty who opposed distance education subscribed primarily to the beliefs of an elite system. They claimed that face-to-face interaction on campus with faculty and students from a variety of

disciplines was necessary to achieve the development of character that is the essence of a real university education. Excerpts from the data below illustrate the different purposes of higher education advocated by those who support, are divided in their support, and who oppose distance education, in that order.

> (312-S) *"People have to be able to compete in the world. You don't compete with the old muscle in the arm any more. It's the old head power that competes. "*

> (186-S) *"Education is one of the five major predictors for happy retirement and ...even longevity."*

> (292-D) *"A university education is about taking individuals and showing them what their potentials are and leading them to be more creative people...giving students more autonomy by giving them the resources and skills they'll need to make choices in their life. "*

> (174-O) *"To me a university education is the epitome of a person's learning process...and I was always very much inclined to think that this projected an individual into the upper echelons of society."*

Faculty views about the cost of distance education were related more to their beliefs and values about accessibility and quality than to concerns about the implementation of distance education. Supportive faculty believed the cost of distance education was worth the investment while opposed faculty would use the money for distance education to bring people to the university campus. Faculty who were divided in their support for distance education perceived the cost as a difficult choice that involved establishing priorities.

Views about Instruction

Faculty in the different groups of support for distance education also had different understandings about what constituted acceptable instruction. Trow (1973) claimed that in an elite system instruction tends to be more structured and marked by seminars with a personal relationship between student and teacher. A mass approach, on the other hand, relies on

alternate forms of instruction that are flexible, modular, and include the use of technological aids. Table 8.3 shows faculty views of instruction and university education for the three groups of support for distance education.

Table 8.3 Faculty Views of Instruction and University Education According to the Extent of their Support for Distance Education.

Extent of Support	View of Instruction	View of University Education
Supportive	Different methods achieve Similar results, including Independent study	Mass
Divided	Some dialogue is necessary; Independent study is Difficult	Mixed Phase
Opposed	Direct personal relationships and intellectual confrontation	Elite

Faculty who supported distance education believed in flexible forms of instruction and independent study because they claimed that "*Different teaching methods rarely show significantly different results* (145-S)." Faculty who were divided in their support for distance education preferred to see more structure with more face-to-face contact for dialogue and debate within a learning group. They believed that the learning process in a group was quite different and more effective than in isolated, private study. The opposed group held ideals of instruction which dictated face-to-face interaction within a university community of scholars.

(197-S) "*I think most people, to a large extent , are.self-taught. It's a question of giving them the encouragement to be self-taught.* "

(719-D) *"Learning in isolation is difficult without contact with other students going through the same kinds of dilemmas. I would expect that only certain kinds of people can really do it [distance education] without the stimulation of other people around...it really takes a tremendous amount of discipline...I think that's a lonely way to learn."*

(463-O) *"The essence for me of undergraduate education is almost a one on one contact between an intelligent student and a quite intelligent faculty member, and as you deviate from that, I think, the system becomes less and less satisfactory. ....Education to me is, in this ideal world of one on one, intellectual confrontation, which I don't think you can do or at least get very much of at a distance. "*

Experience on a University Campus

Faculty in the three groups of support for distance education also understood the value and purpose of experience on a university campus differently and this was consistent with faculty views about instruction (see Table 8.4).

Table 8.4. Perceptions about Experience on a University Campus Held by Faculty in Three Categories of Support for Distance Education.

Category of Support	Experience on a University Campus	
	Necessity	Purposes
Supportive	Not Essential	Has incidental benefits; adds richness
Divided	Some is Essential	Interaction with students, faculty and experts in the discipline
Opposed	Essential	Socialization with a community of scholars to develop the student and foster a scholarly outlook

Faculty who were supportive of distance education believed experience on a university campus might have some advantages, but that it was not essential. They saw it as a luxury that had incidental benefits. Faculty who were divided in their support for distance education believed that some minimum amount of experience on a university campus was preferred for undergraduates and essential for graduate students. The value of experience on a university campus for most of the divided group was for face-to-face interaction with other students, professors, and visiting scholars within the department and discipline of study. At the graduate level in particular, the purpose of campus experience was for spontaneous, on-going dialogue within the laboratory and departmental community. Faculty who opposed distance education viewed campus experience as essential, but for different reasons. They tended to think of university campus experience as the ideal community of scholars where students from a variety of disciplines bumped into each other and debated issues from various points of view. They believed that the university environment at large was important for socialization, the shaping of character, and developing a scholarly outlook.

> (213-S) *"The experience of being part of a university, perhaps will round the person out a little bit better. Perhaps. What value that might have I am not sure."*

> (257-D) *"One of the important things as a graduate student is that you get into your department and you talk to the other professors, and ...other graduate students, ...and it's often the peer contact, or the colleagues that you make there, that are just as important a part of the graduate experience as any course you'll ever take or any book you'll ever read...I think you lose that in a distance program."*

> (740-O) *"The university campus experience is one of the most important things students have, just to bump into, to talk, and argue with people from totally different backgrounds ....Connections are made between different branches of knowledge and it becomes an opening and broadening experience for students."*

Views of Technology

Faculty views about the helpfulness of communications technology in distance education were linked to their views about instruction and varied according to the extent of their support for distance education as noted in Table 8.5.

Table 8.5 Faculty Views about Instruction and Communications Technology According to the Extent of their Support for Distance Education.

Extent of Support	Views of Instruction	Views of Technology
Supportive	Flexible methods Independent study	Makes distance education feasible
Divided	Dialogue	Minimal helpfulness
Opposed	Discussion and debate in a community of scholars	Retrogressive

The faculty who supported distance education were very positive about the use of technology and saw it as making the implementation of distance education practical. To them, learning with the use of technology was just another educational method which could be just as effective as regular instruction. Faculty in the divided support group believed technology could have some minimal utility but that some personal interaction with faculty and with other students on campus was either essential or highly preferable. Those who were opposed to distance education usually discounted the usefulness of technology entirely.

(219-S) *"The problem of designing an interactive learning process in distance education is a technical one. Fax machines and computer conferencing could be used for graduate seminars. It would be a different kind of seminar, occurring over a different time period, but it would be suitable. So electronic mail, with fax for hard copies, I think that's probably why I was so positive about it [distance education].* "

(328-D) *"The use of technology may be helpful for teaching but it is not the ultimate. Face-to-face lectures are the backbone of the teaching at the university...and I think you need to have that.. Various exotic forms of presentation and gimmicks like computer assisted instruction don't really replace the human interaction. They're all semi-substitutes for what I think is the best thing, person-to-person contact.* "

(463-O) *"Television is the worst possible thing that's ever happened to the world....largely because it's broken down these human connections which there are all too few of.* "

(740-O) *"I'm not convinced that the technology always will be effective. The best possible arrangement is a one to one relationship with a student and a teacher, or else a class body and a teacher. Anything else that tries is, maybe, third best.* "

Faculty also thought about technology in relation to the provision of library facilities for distance students. Supportive faculty believed technology, especially computer access was very helpful, while opposed faculty believed that browsing in the university library was an important part of a university education that would be taken away with the use of technology. Faculty who were divided in their support for distance education believed that technology was of some helpfulness in lower level courses that did not require a lot of library work.

Differences by Gender and Disciplinary Classification

The comparative analysis also searched for variations in faculty understandings of the compatibility and feasibility of distance education by gender and discipline to extend the survey findings. The differences were greater for disciplinary classification than for gender.

Gender

The differences by gender were slight but they were consistent with the literature and with the survey findings. In the survey, women gave significantly more support to graduate distance courses than men. In the interviews, women commented more often than men that many women need flexible teaching methods, such as distance education. Nine women (of 21 or 43%) spoke about this, while two men (of 29 or 7%) made similar comments. Women saw distance education as particularly helpful for other women who raise children and live in remote areas. However, one subject felt distance education could cheat women of important experiences on campus. This person stated that women need to see female faculty on campus as role models. While the differences noted here were evident in few cases, it suggests that female faculty perceive women as having some special educational needs. This is consistent with the finding of Schalk (1984) that women are more concerned than men about the needs of adult students.

> (110-D) *"Off-campus education would be a real bonus for a lot of women who are currently not very well educated, are perhaps looking after children at home, and do not want to leave where their husband is currently working."*

> (331-D) *"I especially notice the need for this kind of education for women. I find lots of women after they have a family, they decide to come back to school."*

> (257-D) *"I, personally, believe the role model aspect of face-to-face education is important, because there are few female faculty role models. A lot of our students are female and they need to see that being a woman does not have to be a stumbling block."*

Disciplinary Classification

The survey found that the hard, pure (natural sciences) disciplinary groupings gave significantly less support to distance education than other disciplines. The interviews indicated that this difference could be explained by a difference in the perceptions of face-to-face interaction held by subjects in the hard, pure group. The emphasis subjects from the hard, pure disciplines placed on personal interaction suggested that they placed greater value on social connectedness, one of the distinctive characteristics noted by Biglan (1973). Social connectedness refers to informal relations with colleagues which is characteristic of the physical sciences and appears to be important to their research activities (Biglan, 1973, p. 204). Other literature on the different research styles of disciplinary cultures gives a similar explanation. Becher (1989, p. 79) described the research style of academics in the physical sciences as urban and the style of the other groupings as rural. "Some of the most striking urban/rural differences emerge in the characteristic forms of communication" (Becher, 1989, p. 81). Urban researchers place major emphasis on collaboration and team-work. Communication channels are geared for swift and frequent interchanges. The most important ideas and insights are believed to occur during unplanned and informal discussions with colleagues.

> (328-D) *"Meetings and personal discussions seem to cut through all the chaff that you have to cope with usually to get to what you want, or, often, to give you different points of view. "*

> (572-O) *"I work very closely with graduate students especially and I like to interact with them daily. Graduate students must spend time in the university to learn how to do research. People find it much easier to either learn about new things or accept new things, through more casual or spontaneous discussion , rather than a structured thing, like the planned interaction you would get with technology in distance education. "*

Biglan (1973a) suggests that the existence of an agreed upon research paradigm in the physical sciences allows and may even require social connectedness among its members. More agreement on definitions, problems for study, and research methods permits more communication. It is also important for graduate students to be socialized to the accepted research paradigm (Biglan, 1973a).

> (176-D) *"the development and training of a student in [this science] is intimately tied up with a fairly close personal relationship with the research supervisor and the ability to spend extended periods of time in the laboratory working on a dedicated project. It is very difficult to imagine that you could do that except in an environment like this because you need so much support. .... The research supervisor just has to be available for students to pop in and discuss things and there has to be a critical mass of graduate students who learn from each other. The whole departmental environment is a very important part of the learning process in graduate education. "*

> (434-D) *"We encourage interaction among the graduate students. They give presentations to one another and they participate in seminars given by experts who come here from around the world. This involves networking and making contacts in the field. .... Also, what's the point of doing a Ph. D. if you haven't studied under somebody and got his views. It's like a heredity thing, your views of thinking about science are then passed down the chain when they train people."*

Conceptions of Distance Education

Faculty support for distance education depended upon the compatibility of their conception of distance education with their beliefs and values about university education in general. As faculty spoke about distance education in the interviews it was evident that they thought about distance education in three different ways: 1. as promoting social justice; 2. as an educational method; 3. as a way to distribute information. Faculty often combined these ways of thinking about distance education, although they usually emphasized one of the three in their conversation. For the purposes of clarity each is discussed separately below.

Distance Education as Promoting Social Justice

The faculty who were most supportive of distance education saw it as promoting social justice. Their thoughts were consistent with the definition of Garrison and Shale (1987) that distance education is a means of extending access to educational opportunities. They thought about distance education in programmatic rather than descriptive terms that were based on their beliefs about what should be done (Soltis, 1978). Faculty who supported distance education clearly expressed their beliefs that the university should reach out to people and that education can redress social inequities in society. They valued providing equal educational opportunities to people, hence, they supported mass education and rejected elitism.

> (458-S): *"I think that the universities thus far have seen their responsibility as directed only towards white middle class people and they have certainly taken that responsibility quite seriously. There hasn't been a real consideration, I think, of people that don't have access to the structure that they've set up. "*

> (603-S)" *I think most universities suffer from an elite complex and they see their education in an elitist context and distance education is not elitist education. It's the other side of the coin. UBC is an elitist organization and doesn't even believe in extending itself in these ways and I think it's one of the worst aspects of UBC. "*

> (657-S) *"I believe it is a good thing to provide educational opportunities for as many people as possible and I find it difficult to believe that people would disagree with that principle.Ideally, everybody should have access to any sort of education. I think to be penalized because of your circumstances, is unfortunate. Distance education opens up education to people who would otherwise not be receiving it."*

Faculty thought about distance education as an educational method in two ways: a) as self-directed, independent study; b) as instructional technology. These views both recognize the separation of teacher and learner in distance education, but one focuses on the effectiveness of learning on your own, while the other focuses on linking the teacher and learner(s) via technology for two-way communication. The conception of distance education as a self-directed, independent study method is common in the distance education literature (Moore, 1988; Wedemeyer, 1981). The conception of distance education as a subset of instructional technology was used by Steinehart (1987) in a study of faculty willingness to participate in distance education. This is based on Heinich's (1984) view that the root of instructional technology is technology rather than education. Other descriptive definitions of distance education include two-way communication via technology as one of its distinguishing features (Keegan, 1990).

A. Self-Directed, Independent Study

Forty percent of those interviewed (n=20) thought about distance education as independent study on your own that required self-direction, motivation, and discipline. Faculty who saw distance education this way did not necessarily believe that it could be effective. Faculty who supported distance education believed in flexible teaching methods and tended to hold this conception of distance education, but it was secondary to their notions of social justice. Five faculty in the supportive group (36%) saw distance education as self-directed learning and they supported distance education because they believed people can learn just as well by different methods and on their own.

> (388-S): *"I have a sense that as long as you have strong students and as long as there's good screening ... that it's a very, very good method, as long as the learners are self-directed. "*

(675-S) *"When it comes right down to it, what you learn as an individual is work that you do yourself. The lecture serves a stimulating function. Education is really up to the individual and I think that's particularly true at university. "*

Ten faculty in the divided support group (45%) believed students could not complete distance courses without group support. They felt distance education was an isolating, lonely, and difficult way to learn that left students *"struggling in the wilderness"* (628-D). The faculty who gave more support to graduate, rather than to undergraduate, distance education did so primarily because they believed graduate students had the focus, motivation, and self-direction required in distance education.

(331-D) *"Graduate students have decided they want to pursue research. so they know what they are doing and they are determined to do it, so they have the motivation and also discipline. "*

Six faculty in the opposed group (43%) saw distance education as self- directed, independent study but were opposed to distance education because they believed students could not learn effectively alone. They believed that learning required interaction with others.

(499-O) *"I guess my assumption is that people... have to talk to each other. ...There can't be too much isolation. "*

(647-O) *"The courses are demanding and the workload is fairly high and I can't conceive of a student in isolation maintaining the discipline and motivation to do this. I just can't conceive of it because I see my own students who have great difficulties this way and there's a tremendous advantage, I can't emphasize it enough, at being in a class of colleagues."*

B. Instructional Technology

Eighteen percent of those interviewed (n=9) spoke about distance education as the communications technology that makes instruction possible when learners are separated from the teacher and other learners. They held the view of Heinich (1984) that distance education

is a subset of technology. They believed that technology was widely available, and fast becoming a cheap and familiar way to communicate with others and to access libraries. They focused on the need to establish two-way communication with distance students as well as to get information to them and they believed that technology could do this almost as well as personal contact and lectures on campus. One subject saw technology as eventually transforming education and dissolving the distinctions between distance and on campus education.

> (312-S) *"Electronics makes distance education possible. I think television is a very good way to go....[you have] eye contact with people. It's another way of communicating electronically....I think the potential [of television] for distance education hasn't been tapped here. "*

> (219-S) *"So electronic mail, with fax for hard copies, I think that's probably why I was so positive about it [distance education]. The library facilities for distance education would have to rely on loan systems and the development of computer data banks that can be accessed at a distance, so again I think there's sort of a technology side to this which I think will be working towards facilitating distance education. "*

> (622-D) *"I have no doubt that technology will eventually transform education. Once technology gets into place somebody at MIT could give a lecture and that could be projected nation wide and, bingo, you've got the same professor teaching the whole world. Distance education is more a supplementary way of getting an education today than the mainstream way of getting education. Once technology is in place, what you're going to see is that the distance education is just as mainstream a way of getting an education as...going to university, in which case you're really not going to see a difference in the calibre of people in the two environments. I'm not even sure you'll have two environments. You'll have one blended environment. "*

Distance Education as Distribution of Information

The faculty who saw distance education as the distribution of information to the general public, or as suitable only for factual content in introductory undergraduate courses, were

opposed to distance education. They simply did not see it as appropriate for a university education. They associated distance education with memorising factual information and piling up credits that did not mean much in terms of a real education. They would use distance education for general educational information, to promote public relations, for technical and vocational training, or, at most, for introductory, factual undergraduate courses. Eleven of the opposed group (79%) saw distance education this way, while none of the supportive faculty held this conception. Eleven faculty in the divided support group (50%) thought about distance education as just for factual, didactic courses and book learning.

> (435-O) *"I feel very positive towards distance education. It's just when you get to the word 'degree' that I have a problem.....It is feasible to deliver certain specific kinds of information and it's feasible to deliver courses [for] ... a certificate or diploma ..."*

> (125-O) *"The university could use distance education to give the community a view of what the university can offer. The public is ill informed about what we do in universities and we need to correct bad press. "*

> (463-O) *"Not much if any of a degree should be done by distance education, but I would be happy to see it used for just educating people in general."*

Summary

A comparative analysis of faculty perceptions in the three groups of support for distance education (supportive, divided support, opposed) identified differences in five areas: 1. the emphasis given to accessibility and quality issues; 2. views about higher education; 3. forms of instruction; 4. purposes and need for student experience on a university campus; 5. the usefulness of technology for interaction. These differences were related to Trow's (1973) conceptualization of mass versus elite higher education. Faculty who supported distance education believed in mass higher education with an emphasis on accessibility. Faculty who

opposed distance education held the beliefs and values of an elite system and believed a true university education required personal interaction on campus within a community of scholars. Faculty who were divided in their support were caught in an accessibility versus quality conflict. They believed that distance education was a second choice, but that something was better than nothing.

Minor differences were evident in faculty understandings of distance education by gender. Differences for the natural sciences (hard, pure disciplinary classification) were explained by the notion of the social connectedness typical of their research style (Biglan, 1973a; Becher, 1989).

The analysis also indicated that faculty think about distance education in three main ways: 1. as promoting social justice; 2. as an educational method: a) self-directed, independent study and b) instructional technology; 3. as the distribution of information. Faculty supported distance education if their conception of distance education was congruent with their beliefs and ideals about university education. Faculty who saw distance education as promoting social justice were the most supportive. They believed that university education should be equally distributed and that distance education could help do so. They were proponents of mass higher education (Trow, 1973). Faculty who saw distance education as the distribution of information were opposed. They believed university education requires personal contact on the university campus to develop the character of the student. Their beliefs and values were consistent with those of an elite system of higher education. Those who saw distance education as an educational method varied in their support for distance education depending upon their views of learning and how much personal interaction was required for effective learning.

The next and final chapter discusses the research findings in relation to the purpose and objectives established for the study. It outlines the limitations of the study and discusses the implications of the results for theory, research, and practice.

CHAPTER 9

A DISCUSSION OF THE RESEARCH FINDINGS AND THEIR IMPLICATIONS

This chapter discusses the research findings in relation to the purpose and objectives of the study. The limitations of the research are noted and the usefulness of the conceptual framework for the study is discussed. The implications of the study are presented in relation to the development of theory, directions for future research, and considerations for educational planning in general as well as specifically for distance education for degree credit in conventional universities.

Discussion of the Research Findings

This study examined the controversy about the credibility of university distance education among faculty in a conventional university. The purpose of the research was to understand and explain why some faculty support distance education while others do not. Support was defined as how faculty would likely speak about and vote for proposals to offer distance education credit courses and programs. The study had three objectives: 1. to investigate differences in the extent of faculty support for distance education according to their familiarity with distance education and selected professional characteristics; 2. to investigate how faculty understood the compatibility and feasibility of distance education, and 3. to compare how faculty in three groups of support for distance education (Supportive, Divided, Opposed) understood the compatibility and feasibility of distance education. The overall research question was, What factors determine faculty support for, indecision about , or opposition to university distance education for degree credit and how do faculty understand the influence of these factors?

The study concluded that faculty support for distance education was largely determined by factors related to the compatibility of distance education with faculty beliefs and values about the purposes of higher education and what constitutes a university education in general. Their beliefs about how accessible university education should be for people and the importance of face-to-face interaction and university campus experience were the most important factors. Feasibility factors regarding the practicalities of implementation would influence faculty participation in distance education rather than their support for it as defined in this study. This differentiation came out surprisingly strong during faculty interviews and highlighted the influence of the beliefs and values faculty hold about university education in general. The latter appear to be the basis of faculty opinions about distance education rather than specific knowledge about distance education itself.

Although most faculty were not very familiar with distance education, they had definite opinions about it that they were willing to express. This confirmed the assumption that faculty may influence committee decisions about proposals to offer distance education even though they have little knowledge about or involvement in distance education. Within universities, faculty are often called upon in committees to approve academic programs that they may know little about (Lindquist, 1974). This characteristic feature of academic governance makes program approval particularly difficult. Jevons (1990) claims that distance education is often dismissed on the grounds of prejudice. Webster's (1965, p. 670) dictionary defines prejudice as "an opinion or leaning adverse to anything without just grounds or before sufficient knowledge." Based on their overall lack of knowledge about distance education, the results of this study suggest that many faculty have a propensity to act in a prejudiced manner towards distance education proposals. Regardless, the study also suggests that when called upon to speak or vote for an educational program, faculty are accustomed to acting on the most relevant knowledge they have and that there is little hesitation in doing so.

The study provided empirical evidence that there is a great deal of scepticism about the credibility of university distance education. This is a deterrent to the development and expansion of distance education, especially at the graduate level. Most of the literature on faculty reactions to university expansion, distance education, and instructional technology portrays faculty as resistant to change (Adamson, 1976; Rishante, 1985; Stinehart, 1987). However, Johnson (1978, p. 180) concluded that "the popular image of professors as conservative resistors of change appears to be a distorted and inaccurate representation of academic people." Johnson(1978) claimed that most faculty were "interested, yet sceptical, positive with reservations" due to a conflict between the goals of academic excellence and expanding educational opportunities.

The findings of this study refuted Johnson's conclusion that faculty are inaccurately stereotyped as resistant to change. One could conclude that faculty are positive towards distance education on the basis of how they would speak about distance education in principle and how they would likely vote for an undergraduate distance course; however, that was the extent of support that the majority of faculty would give to distance education for degree credit. Attitude studies of faculty may give an overly optimistic account of the extent to which faculty will support distance education by votes in faculty meetings. This study indicated that the majority of faculty would speak positively about the concept of distance education but they would give very limited and conditional support to distance education beyond a course at the undergraduate level. Demands for distance education at the graduate level are likely to increase (Kirby, 1988; Kirby & Garrison, 1990; Smith, 1991) but faculty support for graduate distance courses is low (39%) and there is very little faculty support (16%) for a graduate program delivered via distance education.

Faculty views in this study were similar to those of other studies of academic attitudes towards university expansion (Adamson, 1976; Anwyl & Bowden, 1986; Ballis Lal, 1972; Halsey & Trow, 1971) which found that faculty want to maintain the status quo and do not

envision any major change or transformation in the provision of higher education. The findings from this study do correspond with Johnson's (1978; 1984) conclusion that beliefs about accessibility to university education and educational quality create a conflict for many faculty. Almost one-third (31%) of the survey respondents (n=487) were divided in their support for distance education and would support some courses or programs but not others. The interviews indicated that these subjects experienced a definite conflict between their desire to increase accessibility and their concern for educational quality.

The faculty interviewed linked their concerns about the quality of distance education to the process of education, specifically to the importance of transactions between students and teacher, and among students on a university campus. There was little concern for the ability of distance students. The separation of teacher and learner was the biggest issue and they used the norms of conventional educational practices, plus their own experience as university students, as the basis for their opinions about distance education. This finding supports the approach of Garrison & Shale (1987; 1990) that distance education must be considered as an educational process with the transaction between teacher and student as its basic feature. Distance education methods emphasize how this transaction can be facilitated when the teaching and learning acts are separated by time and place. The faculty interviewed believed that dialogue and academic discourse are necessary features of education that must be assured in distance education in order to achieve quality. Many faculty also believe that the social aspects of learning are very important to educational quality.

There were some differences in faculty support for distance education according to discipline and gender, but the influence of these factors was not as great as compatibility factors overall and may simply reflect different beliefs and values about university education held by these different subgroups. Faculty in the soft and applied disciplines were significantly more supportive of distance education than were faculty in the hard, pure physical sciences and women faculty were more supportive overall than men.

The discussion of feasibility factors revealed a large majority (86%) of the 50 faculty interviewed believed that the reward system for tenure and promotion unduly favours research over teaching and that this deters faculty participation in new teaching endeavours of any kind. This finding is a striking example of the often noted conflict between research and teaching for university faculty and of the negative effect this conflict has on faculty participation in teaching. The report of the recent Commission of Inquiry on Canadian University Education (Smith, 1991, p. 31) noted a dangerous trend in Canada towards the quantity of research publications becoming more important to the careers of university professors than the excellence of their teaching. The results of the faculty interviews indicated that faculty perceive this as not just a trend but a reality that they would like to see reversed in favour of more balance in the recognition given for both teaching and research.

The transition from elite to mass higher education, with its tremendous growth in the numbers of both faculty and students from more diverse backgrounds, results in a greater variety of notions about what university education should be and whom it should serve. Decisions cannot be easily made on the basis of shared views; instead a variety of beliefs and values held by different groups creates continual conflict (Trow, 1973, p. 17). The results of this study suggest that this applies to the controversy about the credibility of distance education for university degree studies. Faculty support for distance education varies according to the views they hold about university education, its functions, and acceptable forms of instruction. Those who support distance education unconditionally subscribe to a mass system of higher education while those who are definitely opposed think of university education in elite terms. Those who are divided in their support for distance education fall in between the two. The challenge for educational planners is to find ways to address and accommodate the ideals included in each of these notions of university education.

Limitations of the Study

The study was limited to one site and no attempts were made to obtain results that would generalize to other universities. Instead, the aim was to ensure transferability of the findings according to the conventions of qualitative-interpretive research (Guba & Lincoln, 1985; Stake, 1978). Therefore, the research site, design, and findings were described in detail so that others could evaluate the extent to which this research is applicable to and useful in other situations. Based on the literature about common values and methods of functioning in universities (Leslie, 1980; Ross, 1976), it seems reasonable that the findings of this study may be transferable to other conventional Canadian universities with a traditional history and research orientation similar to that of UBC. Hence, the findings would be more apt to transfer to the larger and older Canadian universities as opposed to the many universities established during the expansionary period in the 1960s and 1970s.

Several sources of measurement error are also limitations of the study. The Likert-type questionnaire used in the survey was constructed for this study and has the fundamental weaknesses of such measurement scales. Subjects responded to the questionnaire on the basis of hypothetical questions about how they would likely speak about and vote for distance education proposals for degree credit in faculty meetings. Faculty might act quite differently in a real life situation. Faculty responded on the basis of different background information about distance education although some standard information was provided in the explanatory note on distance education that accompanied the survey. The questions on how faculty would likely vote on proposals to offer graduate courses and programs by distance education did not differentiate between masters and doctoral level studies. This could be the reason why faculty responses indicated so much opposition to graduate distance education.

Faculty may also have given what they considered socially acceptable views, especially during the face-to-face interviews. Faculty who expressed elitist views about university education during interviews tended to be apologetic for having traditional, exclusive, or old-fashioned beliefs; hence, the prevalence of such views may be underreported. Additionally, the study considered how the faculty responded at one time only and did not measure how faculty responses might change after certain events or treatments, such as a seminar on distance education.

The survey may be biased because respondents may have been more positive about and interested in distance education than non-respondents. Faculty who were opposed to distance education, based on the survey, were less likely to agree to be interviewed than supportive faculty. Hence, opposition to distance education may be underestimated by this study because it may be biased towards a more positive group. Researcher bias in the collection and interpretation of data is another possible limitation.

A Revised Conceptual Framework

The conceptual framework (Figure 9.1) reflected the way faculty support for distance education was conceived for the study and it served to organize and unify the investigation. The usefulness of each of the five concepts in the study and the ways some of them could be reconceptualized are described next.

Figure 9.1 Aspects of the Conceptual Framework Addressed in each Phase of the Study

The definition of <u>support</u> as how faculty would speak about and vote for distance education

was useful. The interviews confirmed that faculty support for the concept of distance

education, as conceived in this study, is distinctly different from faculty willingness to

participate in distance education. The factors that determine each are also different. The

definition used for support was a suitable one to measure how faculty would likely react to

proposals for distance education for degree credit in the self-governance, committee approval process for academic university programs.

The most outstanding finding was that the concept of compatibility should be given more prominence because it alone accounted for most of the variation in faculty support for distance education. The comparative analysis indicated that the concept of compatibility should include the following indicators: 1. views about the role and function of university education; 2. the emphasis given to accessibility versus quality issues; 3. views about instruction; 4. purposes and need for student experience on campus; 5. the usefulness of technology for interaction.

Feasibility, or the practicalities of successfully implementing distance education, had little influence on faculty support for distance education as defined here. This was clearly stated by some of those interviewed:

> (280-O)*"I think that anything which is right on the basis of an idea, can be worked out in terms of money. If it is a worthwhile idea there is a way of realizing it. So the important thing is to decide whether the idea is worthwhile and then resources can be found. "*

Feasibility would be more usefully thought about in terms of faculty incentives to participate in distance education. Recognition for distance teaching and rewards applicable for tenure and promotion would be the major factor to consider. Faculty workload and training for distance teaching would need to be included.

Familiarity was given a central position in the conceptual framework and the results confirmed this because faculty support for distance education differed significantly according to familiarity with distance education. Familiarity consisted of awareness of and involvement in distance education. It was important to include the general awareness aspect because the majority of faculty were aware from general, incidental, and social sources of information. The involvement aspect distinguished those with high from those with low familiarity.

The professional characteristics concept should include research style, personal educational experience, and gender. Research style as hard versus soft and pure versus applied should be determined on the basis of faculty self-ratings because of the great variation of research styles within the soft disciplines. The teaching or research interests factor can be omitted because knowledge and research defines disciplinary culture the most and teaching is often defined accordingly (Becher, 1989). Figure 9.2 presents a revised conceptual framework for the study of faculty support for and participation in distance education.

Figure 9.2 Revised Conceptual Framework to Study Faculty Support for and Participation in Distance Education.

Implications of the Study

The implications of the study are discussed in terms of contributions to theory, directions for research, and considerations for educational planning in general as well as specifically for distance education.

Contributions to Theory Development

Empirical evidence from the study supported the conceptualization of distance education as a manifestation of the transition from elite to mass higher education. Trow's (1973) view of the differences in the beliefs and values of elite and mass education were found a valid and useful device for explaining why some faculty support distance education while others do not. Furthermore, the concern faculty had for interactional processes as important to educational quality supports treating distance education as an educational process that occurs at a distance (Garrison & Shale, 1987; 1990).

The study concluded that faculty thought about distance education as promoting social justice, as an educational method, and as the distribution of information. The different conceptions of distance education suggested by this study provide some empirically-based knowledge which helps clarify the ideals and values that lead to conflict and misunderstanding about the meaning, purpose, and credibility of distance education. Each conception of distance education reveals fundamentally different values and assumptions. The controversy in the literature about definitions of distance education is based upon similar differences although they are seldom addressed directly.

The study also contributed to the literature on conceptual approaches to the study of disciplinary cultures. One of the dilemmas of research in higher education is how to study the diversity in academic organizations. Several methods of grouping the disciplines for

systematic study have been advanced on the basis of similarities in knowledge and research, most notably those of Biglan (1973b) and Lodahl and Gordon (1973). This study concluded that the Biglan classification (Biglan, 1973b) as modified by Becher (1989) was a valid way to group the disciplines in comparison to how faculty would identify themselves. However, the faculty self-ratings give a more detailed picture of the soft groups which have more varied research styles. This may account for some of the diversity of subcultures noted within the disciplines.

Directions for Future Research

The revised conceptual framework provides a basis for future studies of faculty support for and participation in distance education. The framework could guide a program of research to address questions derived from each of the concepts. This study concluded that faculty views of university education largely determined their support for distance education because they understood distance education as either compatible or incompatible with their beliefs and values about the accessibility and quality of university education. Further research is recommended to validate faculty conceptions of university and distance education, to determine the influence of personal educational experience on these conceptions, and to validate the usefulness of the concepts of mass versus elite systems of higher education to derive meaning from the evidence.

Research in other conventional universities with a different history is recommended to determine if there are different factors in other settings that influence faculty support for and participation in distance education. The "newer" universities likely have a different organizational saga or " a unified set of publicly expressed beliefs about the formal group that (a) is rooted in history, (b) claims unique accomplishment, and (c) is held with sentiment by the group" (Clark,1977. p. 100). A different sense of purpose and commitments may account for the greater involvement of some universities in distance education. This may include more

adherence to the notion of mass education both organizationally and individually within the institution.

The influence of research styles on faculty views of education deserves further investigation. Although academic disciplines hold some common beliefs and values, there are also great variations or subcultures within disciplines (Becher, 1989; Clark, 1987). This study looked at differences by four broad disciplinary groupings. Subjects in the soft disciplines showed a lot of disparity in how they rated their research. Further development and testing of the questions used in the survey for faculty self-ratings of research type are recommended because refinements are needed in ways of classifying the disciplines. Then, research should look at variations in faculty perceptions of university and distance education by self-rated differences in research style within disciplines. Such research could determine if those within a discipline who are supportive of, divided in their support for, or opposed to distance education hold views of mass, elite, or mixed phase higher education similar to those found in the broader disciplinary groupings.

The extent of gender differences in faculty perceptions of university and distance education remain an elusive but a promising area for investigation. Women gave significantly more support to graduate distance courses in this study which may reflect their awareness that women are underrepresented in graduate programs (Smith, 1991). The lack of women in engineering and the physical sciences made it impossible to investigate gender differences in the disciplinary grouping that gave the least support for distance education. It would be useful to compare the conceptions of university education and distance education held by women and men with similar research styles.

A longitudinal case study is needed to investigate further the influence of familiarity with distance education. Such a study could investigate changes in faculty perceptions of distance education before, during, and after distance teaching. Research in this area could also look at

faculty adjustments to distance teaching and what constitute adequate orientation, guidance, and incentives for faculty.

It would also be useful to conduct a case study of the approval process for a distance education proposal for degree credit, especially at the graduate level where the scepticism is the greatest. This could look at the views of faculty involved in voting on the proposal at the various levels of university governance i.e., department, faculty, and senate. It could determine how faculty with different conceptions of university and distance education, and with various degrees of familiarity with distance education, influence the approval process.

Considerations for Educational Planning

The different beliefs and values held by academics regarding university education have implications for educational planning in general as well as for distance education specifically. The great diversity of opinions and the many disciplinary subcultures in universities make it difficult to obtain agreement on proposals for strategic plans, mission statements, and educational policies and changes of any kind (Becher, 1989; Bryson, 1988; Clark, 1987; Gaff & Wilson, 1971; Sibley, 1986). Faculty in this study thought of university education in relation to the values of elite, mass, and mixed phase education (Trow, 1973). However, faculty may have common values that they choose to realize in different ways (Gaff& Wilson, 1971).The challenge for planners is to find common values within the different views of university education that may be addressed and accommodated in the planning process. More specifically, the tension between egalitarian goals and excellence must be resolved so that they are seen as compatible because real equality is only achieved through excellence (Pike, 1975; Schaefer, 1990).

Most faculty in this study valued both accessibility and quality. Faculty in the three different categories of support for distance education believed that quality could be achieved in

different ways. Faculty believe that face-to-face interaction and experience on a university campus are important aspects of quality. Many expressed concern about the erosion of these aspects of education in general, aside from their reservations about the quality of distance education. Accessibility was also a common concern and faculty, in the divided group especially, experienced a conflict of values because they did not want to trade-off quality for accessibility. Articulation of these common values and how they are addressed in planning proposals may help to allay faculty concerns that these values are overlooked or that one is traded-off for the other.

The faculty in this study believed almost unanimously that the reward system in universities favours research over teaching and that this should be changed. Imbalances in the recognition of research over teaching have been identified widely as a deterrent to faculty teaching efforts and the use of innovative teaching methods in general (Smith, 1991). If universities want to become more involved in teaching, the reward system must change so that things like the development of distance teaching course materials will receive recognition comparable to that of a published research article. There is apt to be strong faculty support for moves in this direction.

The implementation of distance education could be facilitated by providing more incentives to faculty for teaching in general and by providing time and training for faculty to participate in distance education. Faculty are largely unaware of the adjustments necessary but the use of technology and the team approach to course design are major factors that need to be accommodated because they interfere with the academic norms of faculty autonomy and control over teaching (Becher & Kogan, 1980; Stinehart, 1987). Such training programs need to emphasize the nature of the educational process in general and how this can be carried out at a distance, rather than treating distance education as different from the educational process on a university campus (Paul, 1987; Sewart, 1987).

More flexible and responsive academic policies are needed to effectively serve distance students (Olcott, 1991). Faculty support for distance education is necessary to effect policy changes that will lift restrictions on the number and kinds of distance education courses that may be used towards a university degree. The faculty interviewed indicated they would favour flexible and extended time periods for adult, part-time students to complete a degree program. This may provide a first step towards lifting restrictions.

The results indicate that the planning and implementation of distance education may be facilitated by increasing faculty familiarity with distance education. Faculty who are more familiar with distance education are also more supportive of it. More information about distance education may help make it more credible in the eyes of academics and decrease their concerns about quality. Verduin and Clark (1991) claim that increasing faculty knowledge about distance education is the key to gaining acceptability. There is a large divided group who may support distance education provided they are assured that requirements for face-to-face interaction, laboratory work, and campus experiences are addressed.

Faculty need information about the emphasis distance education theorists place on dialogue and discourse in distance education and the concern distance educators place on the quality of the teaching and learning transaction in general (Chance & Bates, 1991; Garrison & Shale, 1990; Holmberg, 1991; Keegan, 1990; Moore, 1990). This may help allay faculty concerns about the educational process in distance education. A glaring and crucial gap exists between the writings of distance educators and the general lack of information about distance education that the majority of faculty had in this study. The concerns of both groups are similar and there is a need for communication between the them (Kirby & Garrison, 1990).

Information about and proposals for distance education should address how face-to-face interaction and campus experience requirements are handled because these are the main

concerns academics have about quality. Many fear that a lack of immediacy and spontaneity in interaction is a serious limitation of distance education. They also worry that distance students will miss the stimulation and challenge of group discussions with other students. Faculty must be assured that distance education courses cover more than factual material, have a theoretical basis, and lead to a critical understanding and appreciation of the material. The differences between independent study and student isolation need to be clarified. The benefits of and problems with communications technology should be discussed and the "humanizing" techniques developed for distance education highlighted. Information sessions or seminars on distance education should attempt to have the participation of members from each discipline. There was some evidence in the interviews that faculty who are opposed to distance education may listen to the views of respected others in their discipline. This concurs with the change literature that respected people influence others to try new things.

Overall, the controversy about the credibility of distance education can only be addressed by considering faculty beliefs and values about the accessibility and quality of university education and by increasing faculty familiarity with how education at a distance may be able to accommodate these values. Furthermore, faculty participation in distance teaching or newer teaching methods of any kind require a change in the reward system for tenure and promotion so that faculty are given more recognition for teaching as opposed to research.

Summary

The results of this research suggest that there is a great deal of scepticism about distance education that must be overcome before it will be viewed as acceptable by the majority of faculty in a conventional university. Until faculty know more about distance education and its concern for the interactional processes of education, the acceptance, development, and expansion of distance education, especially at the graduate level, will be slow and fraught

with controversy. The discussion of the research findings in this chapter outlined some ways to increase faculty support for distance education.

This chapter also reviewed the usefulness of the conceptual framework for the study and presented revisions that place compatibility as the central explanatory concept. The revised conceptual framework provides guidelines for further research and several specific suggestions were made for directions that such research might take. The study contributed to the development of theory about different conceptions of university and distance education and provided further insight into the study of disciplinary cultures. The research findings have implications for educational planning in general by indicating the different beliefs and values about university education that must be addressed in the planning process.

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APPENDIX A

QUESTIONNAIRE ON FACULTY SUPPORT FOR DISTANCE EDUCATION

FACULTY SUPPORT FOR DISTANCE EDUCATION

Familiarity with Distance Education

This section asks about your familiarity with distance education courses for degree credit. Please circle the number that best reflects your answer for each:

1 = Not at all
2 = To Some Extent
3 = A Great Deal

1. Prior to reading the explanatory note on distance education, to what extent have you:

a) heard about distance education courses for degree credit offered by UBC? — 1 2 3

b) heard about distance education courses for degree credit offered by other universities and colleges? — 1 2 3

c) read about distance education generally in newspapers or magazines? — 1 2 3

d) read about distance education in scholarly journals? — 1 2 3

e) discussed with other faculty UBC's role in providing distance education courses for degree credit? — 1 2 3

f) debated with other faculty controversial issues regarding distance education courses for degree credit? — 1 2 3

2. To what extent have you been personally involved in distance education courses for

Your Views about Distance Education

This section asks for your views about distance education courses for degree credit. Please circle your response.

1. How would you describe your overall attitude towards distance education courses for degree credit?

Very Positive   Positive   Neutral or Ambivalent   Negative   Very Negative

2. How would you likely speak in faculty meetings about distance education courses for degree credit?

Very Positively   Positively   Neutrally   Negatively   Very Negatively

3. Given that distance education courses and programs are designed with UBC faculty, how would you likely vote in a faculty meeting for a proposal to offer by distance education:

a) a COURSE for UNDERGRADUATE degree credit?

Yes, definitely   Yes, probably   Abstain   No, probably   No, definitely

b) an UNDERGRADUATE DEGREE PROGRAM?

Yes, definitely   Yes, probably   Abstain   No, probably   No, definitely

c) a COURSE for GRADUATE degree credit?

Yes, definitely   Yes, probably   Abstain   No, probably   No, definitely

d) a GRADUATE DEGREE PROGRAM?

Yes, definitely   Yes, probably   Abstain   No, probably   No, definitely

b) in preparing course materials? 1 2 3

c) in assisting (e.g. advising, tutoring) students enrolled in distance courses? 1 2 3

d) as a student yourself in a distance course? 1 2 3

GRADUATE:

Your Teaching and Research Interests

Your answers to the questions below will be used to compare the responses of faculty according to their teaching and research interests. Please circle your response.

1. What is your present involvement in teaching and research?

a) Teaching only.
b) Research only.
c) Both teaching and research.

If both, please indicate where your interests lie.

a) Primarily in teaching.
b) Primarily in research.
c) In both, but leaning toward teaching.
d) In both, but leaning toward research.
e) In both, equally.

If you are involved in research, please answer questions 2 and 3.

2. In most academic fields, scholars vary between a more "objective", "hard", or quantitative, positivist approach on the one hand, and a more "subjective", "soft", or qualitative, interpretive approach on the other. Where would you locate your research on a "hard-soft" continuum of research in general?

Hard						Soft
1	2	3	4	5	6	7

3. In many disciplines, faculty differ as to whether their research work is primarily concerned with purely theoretical contributions or with applications in everyday life. Where would you locate your research on a "pure-applied" continuum?

Pure						Applied
1	2	3	4	5	6	7

Thank you for completing and returning this questionnaire.

THE UNIVERSITY OF BRITISH COLUMBIA

September 24, 1990

Department of Administrative,
Adult and Higher Education
2125 Main Mall
Vancouver, B.C. Canada V6T 1Z5

Tel: (604) 228-6349
Fax:(604) 228-6501

Dear Professor:

This is to introduce Ms. Joyce Carver who is a doctoral candidate in Educational Administration/Higher Education at the University of British Columbia. She is on leave from her position as Assistant Professor of Nursing at Dalhousie University. Ms. Carver has received approval to conduct a study of how UBC faculty perceive distance education in order to explain variations in faculty support for this instructional method.

University distance education has grown remarkably in British Columbia, as well as nationally and internationally, in response to societal demands for expansion and diversification of higher education. Egalitarian values, socioeconomic goals and trends toward lifelong learning continue to create demands for flexible instructional methods. However, there is controversy among academics about the suitability of distance education for university degree courses and programs. This controversy exemplifies broader debates about the accessibility and quality of university education, in light of available resources and other factors influencing faculty responses, such as rewards for teaching versus research.

Ms. Carver requires the participation of a sizable number of UBC faculty for the successful completion of her dissertation. We know you are busy but we would be grateful if you consent to participate. Details about involvement in the study are given in the enclosures.

Sincerely yours,

Dr. John Dennison,   Dr. Tom Sork,   Dr. Marilyn Willman,
Chair   Research Supervisor   Member

THE UNIVERSITY OF BRITISH COLUMBIA

September 24, 1990

**Department of Administrative,
Adult and Higher Education**
2125 Main Mall
Vancouver, B.C. Canada V6T 1Z5

Tel: (604) 228-6349
Fax: (604) 228-6501

Dear Professor:

You have been randomly selected to participate in my doctoral research entitled "A Study of Faculty Support for Distance Education." The purpose of the study is to explain why some faculty support distance education courses for degree credit while others do not. Your participation does not require prior knowledge of distance education; an explanatory note provides a basis for your response. My interest in faculty views is based on my experience as a faculty member involved in the development of distance education courses for degree credit at Dalhousie University in Nova Scotia.

Your participation will involve 15 minutes to complete the attached questionnaire. A sample of faculty who respond will be contacted by mail for a 1 hour interview to discuss the factors that determine the extent of their support for distance education.

Your participation in either aspect of this study is entirely voluntary and you may withdraw from the study at any time. Completion of the questionnaire assumes your consent for this part of the study. Follow-up on non-respondents will consist of a second mailing and two telephone contacts at two week intervals. Signed consent will be requested separately from those contacted for interviews. Respondents will be selected for interviews from among those who are supportive of, opposed to, and undecided about distance education.

All responses will be kept strictly confidential. The code number on the questionnaire signifies your discipline, gender and name. The identification key for names, stored separately and available only to me, will be destroyed once data collection is completed. It will be used only for follow-up purposes and to contact a small group of faculty for interviews.

The benefits to you are indirect. Your participation will help make faculty views known so that they may be taken into account in program planning and development. The findings may also provide direction for orientation and support programs needed by faculty participating in alternate teaching methods, such as distance education. Alternatively, the study may suggest the conditions under which distance education may be inappropriate or inadvisable from a faculty perspective.

Please complete and return the attached questionnaire by October 5, 1990. If you have any questions about the study, I am glad to discuss them with you. Please feel free to contact me at home, phone 736-3669, or in writing at the above UBC address. Dr. Tom Sork, research supervisor, may be contacted at 228-5702.

As one of a small number in this survey sample, your completion of the questionnaire is vitally important to my study. I thank you in advance for your response.

Yours sincerely,

Joyce Carver, Ed. D. Candidate
736-3669

APPENDIX D

Explanatory Note on Distance Education

Distance education is an outgrowth of correspondence instruction. In distance education, the teacher and learners are usually separated in time and space; communication occurs primarily via print, postal service and telecommunications, as distinct from classroom, group-based, face-to-face instruction characteristic of most university teaching. Distance education courses may include occasional face-to-face meetings of student groups, or of faculty and students as part of the overall course design. Residential requirements on campus may be involved also, for example in laboratory or clinical courses. However, distance education as defined here excludes courses given by faculty who travel off-campus to replicate on-campus instruction in other locations. Distance education is used for many non-credit and professional continuing education courses as well as for degree credit courses. This study is concerned with degree credit courses because there is controversy about the credibility of distance education courses for university degree study.

The University of British Columbia has been offering distance education courses for degree credit since the division of Guided Independent Study was established in 1949 (now called UBC Access Guided Independent Study). The first offerings were correspondence courses and, since 1970, newer communication technologies and a greater variety of learning activities have been incorporated, such as telephone conferences, audiotapes, and television broadcasts. Students can use a free telephone service to contact tutors and the Extension Library. Distance education courses are currently offered in Agricultural Sciences, Arts, Education, Forestry, and Nursing. The degree credit offerings carry full credit toward degree programs in accordance with the requirements of the Faculty concerned. These courses enroll primarily part time adult students who are employed full time. In 1989/90 fifty-six courses were offered with a total enrolment of 1,585 students.

Distance education courses for degree credit are also offered by Simon Fraser University, The University of Victoria, the Open University and the Open College of the Open Learning Agency, and most community colleges in British Columbia.

APPENDIX E

The University of British Columbia
Department of Administrative, Adult and Higher Education

South Staff Office Block, Rm 17
August 21, 1990

Dear

Re: Pilot Test of Questionnaire for a Study of Faculty Support for Distance Education

In accordance with our telephone conversation, I have enclosed for your review a copy of the cover letters and questionnaire for the above named study. In addition to your general comments, I would like your reactions and suggestions specifically about the following aspects of the questionnaire:

a) the amount of time it takes you to read and complete it--is 15 minutes a suitable estimate?

b) the general layout--is it easy to read and follow?

c) the clarity and conciseness of the wording--do you have questions about what any item is asking?

d) the response categories for each question--do the response options allow you to respond to the questions in the way you would like to do so?

e) the most appropriate descriptive terms to use in the last two questions for Section C-- are the Hard-Soft and Pure-Applied terms suitable to you? If not, what ones would you suggest?

I will contact you by telephone to obtain your feedback. Please feel free to phone me if you wish to do so. Thank you again for you help.

Joyce Carver, Phone 736-3669

APPENDIX F

UBC Departments Classified According to Biglan Groups

Disciplinary Classification	UBC Departments Included
Hard, Pure	Botany, Chemistry, Geophysics and Astronomy, Mathematics, Microbiology, Oceanography, Physics, Statistics, Zoology
Hard, Applied	Agriculture (6 departments), Architecture, Computer Science,Dentistry (3 departments), Engineering (6 departments), Family & Nutritional Sciences, Forestry (3 departments), Medicine (20 departments).
Soft, Pure	Anthropology & Sociology, Asian Studies, Classical Studies,Creative Writing, English, Fine Arts, French, Geography, Germanic Studies, Hispanic & Italian Studies, History, Library, Archival & Information Studies, Linguistics, Music, Philosophy, Political Science, Psychology, Religious Studies, Slavonic Studies, Theatre
Soft, Applied	Commerce, Economics, Education (8 departments), Law, Nursing, Social Work

a). the number in brackets is all the UBC departments in that discipline

THE UNIVERSITY OF BRITISH COLUMBIA

October 9, 1990

**Department of Administrative,
Adult and Higher Education**
2125 Main Mall
Vancouver, B.C. Canada V6T 1Z5

Tel: (604) 228-6349
Fax:(604) 228-6501

Dear Professor:

At the end of September I sent you a letter and questionnaire asking for your participation in my doctoral study of faculty support for distance education. It is possible that this material was misdirected or mislaid. For this reason, I am enclosing a copy of the original letters and questionnaire. If you have already completed and returned the questionnaire, thank you for your help and please disregard this letter.

Your participation is important for the successful completion of my dissertation. To date the response rate is insufficient to ensure an adequate sample. I realize you are busy and that this sort of request creates an additional burden, but I do hope you will reply. I appreciate 15 minutes of your time to complete the questionnaire. Thank you for considering my request.

Sincerely yours,

Joyce Carver, Ed. D. Candidate
736-3669

P. S. Please return the questionnaire by **October 19, 1990.**

THE UNIVERSITY OF BRITISH COLUMBIA

January 1991

Department of Administrative,
Adult and Higher Education
2125 Main Mall
Vancouver, B.C. Canada V6T 1Z5

Tel: (604) 228-6349
Fax:(604) 228-6501

Dear Professor

Last fall you completed the questionnaire for my doctoral research entitled "A Study of Faculty Support for Distance Education." Thank you for doing so. As part of the second phase of my study, I would like to talk with you about the factors that determine the extent of your support for distance education courses for degree credit. Faculty are selected for interviews from samples of those who are supportive of, opposed to, and undecided about distance education according to their questionnaire responses. Your reply appears to reflect an interesting point of view that I would like to understand more fully.

Your participation in this part of my study will involve an interview of about 1 hour sometime during winter session, at a time and place convenient to you. Afterwards, I will mail you my written summary of the interview for review which will take about 10 minutes. The interview and the interview summary will be treated confidentially. With your consent, the interview will be tape recorded. The tape and interview summary will be given a code number to protect confidentiality. Any excerpts of interviews reported as examples will not identify individuals, although they may be referred to by discipline and gender.

The benefits to you are indirect. Your participation will help make faculty views known so that they may be taken into account in program planning and development. The findings may also provide direction for orientation and support programs needed by faculty participating in alternate teaching methods, such as distance education. Alternatively, the study may suggest the conditions under which distance education may be inappropriate or inadvisable from a faculty perspective.

Your involvement is, of course, entirely voluntary and you may withdraw from the study at any time. Please complete and return the enclosed form to indicate whether or not you will participate; otherwise I will make one telephone follow-up to ascertain that you received this request. If you agree to participate, I will contact you by telephone to schedule the interview.

If you have any questions about the study, I am glad to discuss them with you. Please contact me by phone at 736-3669, or in writing at the above UBC address. My research supervisor, Dr. Tom Sork may be contacted at 228-5702.

I thank you very much for your time and interest.

Yours sincerely,

Joyce Carver, Ed. D. Candidate   Phone: 736-3669

P. S. **Please answer yes or no** to this request by returning the attached form in the envelope enclosed.

CONSENT FORM FOR
A STUDY OF FACULTY SUPPORT FOR DISTANCE EDUCATION

Description
The purpose of this study is to understand and explain why some faculty support distance education while others do not. The interview phase of the study is designed to explore the reasons for your responses on the questionnaire about distance education in order to understand the factors that determine your support for, opposition to, or ambivalence about offering distance education courses for degree credit at the undergraduate and graduate levels.

Confidentiality
Your interview record will be assigned the number in the upper right corner of this form and your identity will not be disclosed. Reported excerpts of raw data will not be attributed to specific individuals but may be referred to by discipline and gender.

Time commitment
The interview will take approximately one hour. Afterwards, I will mail you a written summary of the interview and ask you to check that it accurately reflects what you said during the interview.

Inquiries
The investigator, Joyce Carver, may be contacted at any time during the study to review and explain purposes and procedures. Telephone 736-3669.
The research supervisor, Dr. Tom Sork, may be contacted at 228-5702.

YOUR PARTICIPATION IS VOLUNTARY AND YOU HAVE THE RIGHT TO WITHDRAW AT ANY TIME FROM THE STUDY.

_____

_____NO, I AM UNWILLING TO PARTICIPATE IN YOUR RESEARCH.

_____

_____YES, I AM WILLING TO PARTICIPATE IN YOUR RESEARCH.

NAME: _____DATE: _____

SIGNATURE:_____

Receipt of consent form
I will return a copy of this form to you, if you participate, and acknowledge receipt of this signed consent.

I have received your consent:

JOYCE CARVER _____DATE: _____

I prepared and taught a distance course and this made me more realistic about the weaknesses and strengths of this method.

Quality

I'm very positive about distance education and *I have a sense that as long as you have strong students and as long as there's good screening ... that it's a very, very good method, as long as the learners are self-directed.* If students are not strong and require more supervision there may be problems because it's harder to get to know the students and to find out what they are thinking. That is especially difficult in clinical courses because *it's an act of faith that what you are told is going on, is going on.* The students report their view of things and when you cannot see what they are doing or hear them talk about it, monitoring clinical work is a big problem. So there are some problems, but *I don't think it means that you can't* do it. *I think it means there have to be some more creative ways of doing it figured out.*

Face-to-face interaction is especially important for monitoring what students understand. *All you have [in distance teaching] is what the student is giving you. What you're not finding out a lot of is what they think they're doing. ... that's what you would have found out in a one to one conversation with them and that's not always possible* Tutorial phone calls help but students do not use them frequently. Teleconferences can accomplish a lot if you are skilful at asking questions and exploring the things the students are not discussing.

I am more concerned about the lack of opportunities for distance students to learn from each other in seminar situations. The students *bring an incredible amount of experience to a seminar situation and there's an enormous amount of learning that takes place between the group members...I think that's the most serious lack.* Distance students don't belong to a class with a peer group they can talk to, so it is helpful to put them in contact with other people in their area who can be supportive of their learning experience. Experience on a university campus and campus life itself is not as big a concern to me because students who take courses on campus often have other calls on their time. *The reality of people who have jobs and kids and all the rest ... to juggle is that they come here, they do their classes, they maybe have a cup of coffee with their classmates, and they go home.* Graduate courses may be easier to deliver at a distance in some ways because the students tend to be more self-directed, but batting ideas around with peers would be a definite weakness. It's always harder to be the only person doing something without peer support. *If you're in a class, there's a kind of a class consciousness. There's that feeling of the class mood, or the class tone, or whatever is going on at that time, ... the whole class is anxious together, and the whole class is relieved together ... when assignments have come and gone.* The whole idea of being a self-starter is critical for distance students who don't have that class stimulation and support.

I don't regard the abilities of campus and distance students differently. *I think they should meet the same criteria everybody else has to meet and that should take care of it.* The teaching materials *that I've seen have been good ... I think very often they're put together with more care with more logic* than regular class materials. They are carefully scrutinized and monitored.

Accessibility

I think the university has a major responsibility towards adult students and I think that the government's commitment to distance education should be major because governments are supposed to be concerned about getting services to people in an economic, efficient, and effective way. We need people in outlying areas of the province so *we have to be committed to getting things to them that they need in order to stay out there and not be disadvantaged.* Distance education is helpful to local students as well because of barriers other than geographic distance. The governments' job is to establish policy and to commit funds while *the university's' responsibility is to do its best to ensure the quality of the product.* We deliver distance education because there is a demand for prepared people and *ultimately if the population doesn't value it then we wont be doing it... we need all these highly prepared [people], as a society we need them, we're not doing them any favours, we are providing for ourselves..*

There needs to be some kind of selection criteria for university to maintain quality.*The more you admit weak people, the more you dilute the quality you can give to the others and that's just reality.* Weak students take an inordinate amount of faculty time and the average students suffer. We should not be reluctant to fail students because of this as well.

Feasibility

When you consider the costs of relocating people for education you realize that distance education is *obviously an effective and efficient way to deliver education and ... I don't think there can be any insurmountable problems if you're committed to doing it.* However, *It's really important that we don't dilute the quality in order to do it cheaply.* Ideally, we should have tutors who go around to the clinical sites several times during a course but the cost of that is a problem. I have no concerns about the availability of technology to deliver distance education. However, the length of time the mail takes is irritating. Teleconferences help but it is difficult to accomplish the same things without the visual feedback you get face-to-face. Library facilities are a problem because that is a major resource that is not available to distance students. They don't benefit from library browsing and the information you find serendipitously.

In the university teaching is not a particularly valued activity. Often people who are working towards tenure are not going to be involved in distance education because of the time it takes, especially to develop a course. The main things I learned in distance teaching were television skills. The academic rules and regulations are rigid and need revising overall, but this is not specific for distance education.

APPENDIX J
Interview Summary No. 458 (Supportive)

I am very open to the idea of distance education although I know very little about it, especially about how it would work practically. Although I feel very positive about it, I would be careful if I spoke about distance education in faculty meetings because I don't think a lot of people here would react very well to the idea. I would make a strategic choice about what I would advocate depending on how feasible it seems to be.

Quality

I don't have concerns about the quality of distance education, although there are some differences in the learning process. *There's no reason that distance education courses should be of any less quality than other types of courses. I think the only thing missing is the general social interaction in and out of class; the intellectual intensity that can be built up within a class if you're a good teacher, you have good material, and you're pushing and challenging the students....that might be missing but it wouldn't necessarily inroad the quality of what you're teaching. It just means that some people would learn more on their own,...which could be incredibly stimulating as well...It would mean that the instructor would have to spend more time to give individual feedback with each student who is involved in those courses and that would be very difficult but I don't think that there's any across the board fear that distance education courses would be of less quality.*

Some of my most intense learning has been on my own. There can be some contact and distance students should be encouraged to talk with other students over the telephone. The socialization and contacts students get from studying on campus are much better for most people because you have a lot more stimulation because of the one to one contact with other students and faculty. However, the need for distance education has to be considered.

Experience on a university campus is not necessary for the people that take advantage of distance education. *I don't think it's going to compromise your education. It might add some flavour to it, it might make it richer in some ways, but there are a lot of people who come here and never connect....I think this university culture is quite exclusive...so a lot of people who might take advantage of distance education probably wouldn't be missing that much.*

I don't have concerns about the ability of distance students and I think people with experiences and backgrounds different from the majority of our students do very well. The quality of distance teaching materials is also not a concern to me *because somebody would actually spend the time to think through exactly what they are trying to teach and to write it down and be much more directive, it could possibly be of a much higher quality.*

Accessibility

My support for distance education is based on *not just my beliefs and values, but the way I approach my understanding of how the society works...It's my understanding of how the system perpetuates itself. It's much more structural as opposed to just a personal understanding.* I look at it from the perspective of how inequalities are created and perpetuated in society. *I think the major thing I was concerned about was there are lots of people that either live outside of the city and can't get to the university, or don't have the financial resources to come to university, cannot leave because of their relationships in the place that they've settled and they should have access to university education just as anybody else. We need to start dealing with the whole structure of the society and everything but I think things like distance education...can go some way towards providing at least limited access for some people that can't take advantage of the collegiate atmosphere.*

People have been subjected to a whole range of barriers, especially race and class barriers, that prevent them from taking advantage of services that society offers to middle class people. Some of the people most affected are new immigrants, Native people, the disabled, and women who raise children on their own. *I think that the universities thus far have seen their responsibility as directed only towards white middle class people and they have certainly taken that responsibility quite seriously. There hasn't been a real consideration, I think, of people that don't have access to the structure that they've set up.*

I think the university should do more for adult part time students and distance education is one way of doing that. I am an advocate of a more flexible, part time program in our faculty and I think this could be combined with some distance courses and a one full time year residency requirement to shorten the time students must spend on campus.

I would like to see selection for universities admissions with very different criteria because we now use marks based on standardized exams that advantage some groups more than others. This approach has produced a very homogeneous population of students. *I think that a lot of the barriers are ...taken for granted, are not even recognized, need to be directly confronted...people just don't even see them...and [they] think that the criteria are selecting the people that should be in school ...certainly that's not the case.*

Feasibility

I am definitely more supportive of distance education because of the available communications technology. Library resources are a difficult issue because our program is very much focused on the library. However, this would be easier now because almost everything is on computer and you can search from your own home and have the materials sent to you. It would be more difficult but possible.

Resources would be needed to reduce the teaching loads of faculty who take on distance teaching. *I think distance education is also probably quite hard on the people that are trying to teach because you're dealing with individuals all over the place as opposed to a classroom. So I think from the teaching perspective I think it would be difficult.* Faculty time and workload would have to be considered. We don't have enough faculty and faculty feel overworked now so it will be hard to get people willing to teach at a distance.

Faculty come to teach in university without any teaching background and it is difficult to develop teaching skills because there is a lot of pressure to publish and to do research. *It would be a real shift to focus more on teaching. They don't even focus on teaching now, let alone devoting any more resources developing a whole new teaching intensive type of program.*

The leadership of administrators would be important for the implementation of distance education. *I don't think you can do anything without having the institutional support...and I mean complete institutional support which plays out in terms of direct statements, policies, release time, acknowledgement...I think you can't do it unless you have that support.* Various academic rules and regulations may make distance education difficult to implement because they are hard to change.

Distance teaching would be satisfying when you see people having access to education and you watch them succeed. It would be a disadvantage for the teacher not to have personal contact with the students but this can be handled in different ways, such as by telephone. The adjustments to distance teaching would be *mostly workload and just shifting the way you think about teaching*.

APPENDIX J
Interview Summary No. 521 (Supportive)

I prepared and taught undergraduate distance courses at another university. I was responsible for distance education within a faculty for a year and I know a lot of people who are involved in distance education. I have had some experience in designing and thinking out distance education for a group in a national context.

Quality
I have had a very positive experience with distance education. *I found that many of the students were very good in distance education, their work was up to the standards that I found in the classroom. In a way, I found I was challenging students in the distance education format more than I was on campus. ...I became convinced of two things: 1. there was no dilution of content....2. the students' work was up to par.* I covered more material in distance courses than campus classes because I didn't have to repeat so much, and while class interaction is good, it takes a lot of time. Interaction is important but you can have a lot of interaction with communications technology which will continue to improve.

Experience on a university campus is nice to have but some people cannot be served if it is required. We can give campus experience in small doses, such as a few weeks in the summer and campus visit days. *I see no barriers to a student completely getting their education in this way...getting an undergraduate degree...without coming on campus.* In principle, it could work at the graduate level, but I have some hesitancies. Graduate education is very individualized and requires more one to one mentorship interaction, but a lot of this could be achieved with technology.

Accessibility
Higher education should be more accessible to people. *We are public institutions. We are supported by the general public, so we have a responsibility, in a sense, to the general public to be open and accessible to all those who measure up, meet the standards of the university.* The individual benefits but there are many benefits to society. *There are economic benefits. There are benefits in terms of the level of thoughtfulness and maturity in the society....Knowledge is one of the great goods...it should be accessible to people. That's part of our role to make it accessible. In that sense universities should not be elite institutions. We should be elite institutions in trying to do the best we can, but not in the sense of accessibility.*

I think we should be open to adult students and perhaps more selective for students coming out of high school, by setting somewhat higher standards and making sure they are really motivated. We need to consider people who have had different educational backgrounds and take a broad view of what is an appropriate background for admission.*With adult students we should be open to people coming in with more diverse backgrounds and be willing to be quite experimental with letting them try, with the appropriate support systems within the university...I believe very strongly in education being a life long experience and...we should be open and accessible to people in society.* Support services should be available for mature students, like student groups for sharing and helping each other and an office of mature students to mediate between the bureaucracy and the individual student. *I value mature, thoughtful people in classes and they bring life experiences that make a difference to what I teach to them.*

Feasibility

Technology is increasing our ability to conduct distance education all the time. *I'm convinced now that distance education is going to be taking a big leap forward through the use of electronic mail. Interactive possibilities are going to be really extensive now. The technology is becoming cheaper, more widespread and we're becoming much more familiar with it.*

Some distance education models are more expensive than others. *I'm not convinced... that you have to do expensive packaging and presentation and I think there are very cost effective ways of doing distance education.* There doesn't need to be an empire of special personnel and facilities. Student numbers are lower in graduate courses and there isn't the critical mass to support the investment. *I'm just not convinced there's the economy of scale.* That's also a problem with advanced undergraduate courses.

Library resources are a difficulty in distance education. *The materials have to be more self contained...this may mean that some types of courses are more difficult to do.* However, interlibrary loan is now extensive and many libraries are well equipped. *One of the messages I have is to piggyback, where you can, onto available technologies and existing systems. And there may be existing library systems that overcome what problems you might have in courses that are heavily library reliant.*

Distance teaching can be assessed as well as classroom teaching and be considered for tenure and promotion. People need to be motivated to do distance education and there must be extra resources for this. *If distance education is simply loaded on top of other demands upon the university for on campus education...and no extra funding comes for it, then there is a real disincentive to do it.* There has to be funding to the institution and incentives to the individual.*Distance education places a lot of demands on the people who are doing it. Shifting modes is expensive and difficult, time consuming. It's not easy doing good distance education courses and you have to provide the rewards to people to encourage them to do it.* There has to be a commitment, in principle at least, at the faculty level and administrative leadership is important in this regard. There has to be a real pay off for faculty as a whole.

There are many adjustments to distance teaching, using different media and preparing course materials carefully. *You have to rethink what you're doing, almost from the very beginning....It's a major adjustment and, to be honest with you, preparing distance education courses is sheer agony. It is very, very difficult..* There needs to be a combination of money and release time rewards for faculty to do it, but there are some other personal satisfactions as well. *It's very useful for thinking through and working out your own thoughts in a particular area...Distance education can, if it's a course of appropriate level, be a form of scholarship and research...It has a positive feedback upon your on campus teaching too.* You become much more organized and explicit.

APPENDIX J
Interview Summary No. 375 (Divided)

I tutored a distance course that someone else designed. It was enjoyable because the students had very interesting backgrounds but it was disappointing when some of them didn't complete their projects.

Quality

I would speak neutrally about distance education because it has distinct limitations. *One real disadvantage of distance education is that they're [students] not in the university environment and they don't have the interaction, the classroom interaction the discussions....while they're getting some of the material, sometimes they don't use it , ... think about it, and work with it as much as they might if they were actually at a university. So it's a second choice for those who absolutely cannot come or make it for many other reasons...I see it...like a last resort.* For local students I would strongly recommend that they go to university where they can have some actual dialogue with the instructor and other students.

Experience being on a university campus has an important social aspect for younger students 18 to 20 years. Socially they make friends and are colleagues for life with many of their classmates. This is not so essential for older students who probably won't be on campus as much anyway. If they have family responsibilities they will come to class and then leave. Distance education would be time efficient for students with other responsibilities and time schedules, so it would be ideal in that respect. However,*all they would get out of it is the actual factual material and there is ... nothing else that they get out of it, except they talk to the instructor over the telephone, which is usually just to clarify the factual material. So they've learned the factual material but perhaps have not gotten the application and how to use the material to the extent that they would get if they were in a classroom situation....there can be a great deal of learning just from listening to questions others ask.* Information has to be used or applied to be retained. Personal interaction forces students to use the information verbally, or at least, by listening and thinking about it during the exchanges in a class. *In a province like B.C., where it is large and ... you don't have facilities close at hand then I think .... distance education fills that role in terms of getting ... academic information to them. [students] ..but it is, you might say, second rate in that they haven't had the full experience of academic information ... but it's better than nothing.*

The quality of distance teaching materials is usually good because top people in the field have prepared them and they are well organized. I felt that some of the assignments and exams were not as challenging as they might be. *So I think one has to watch that and not make some of the standards too easy.* Some courses are more difficult to deliver at a distance than others. In science courses with laboratories it is quite impossible, and in arts some courses have tutorials with dialogue and exchange of arguments that would be totally lacking in distance courses. So there are some real problems with having similar standards in distance education.

I view graduate study as research oriented and research in a laboratory can't be done at a distance normally. Graduate courses usually vary a lot from year to year. I might support graduate courses at a distance *as a last resort* if students could come to university to do their research. Overall, I think distance education *fills a real void and a real niche in many people's lives, ... you have different gears in your car and this is another gear, for whom it may be appropriate. Therefore, it should be part of the educational system, but they [students] should realize, when they're making the choice ... what the disadvantages are.* Attending a top

university on campus is the ideal, but depending on your situation you may have to consider distance education and *even though it's a last resort it comes out as* their best choice given the circumstances.

Accessibility

Overall, I favour a higher education system that accommodates more than the top five percent. *I think it's good for the country and for the populace to be quote 'educated' something beyond grade 12, because they vote and make all kinds of important decisions in their life ... they raise children and pass on information. So I think the world is getting complex enough that we can't afford to be dummy parents any more ... so I think education is great and that's why, in some cases as a last resort, distance education is great, because rather than having nothing at least they got the factual material and hopefully they can talk to others and ... can try to apply it , and use it so it [the information] doesn't just go in and down on paper and out the other ear six months later because they've memorised something.* Evening courses are fine for adult, part time students who live in the area and there should be more flexible rules for degree completion times to accommodate part time study.

Generally speaking, I don't think money is a major obstacle to attending university for those who are really motivated and know what they want to do. There may be extreme situations *but I don't think the financial burden is ... that severe that they can say, Well, I'm not going to university because I can't afford it. Usually it's a cop out in that they haven't really explored all the avenues. They may not personally have the money in the bank to do it, but they haven't looked at all the possibilities,* such as governments loans, scholarships, and asking relatives for loans. For students who are really motivated, one out of twenty students may be in severe situations where finances are a barrier. These motivated students are probably a select group who will excel.

Feasibility

Technology for interaction is not very practical right now but in 20 years it may be practical and improve distance education. Library facilities are a real problem especially for advanced courses. Students need to be on campus for that reason. It is nice to give students opportunities but the economics of distance education may not be practical unless there are a lot of students enroled. The lack of numbers in graduate study may be the biggest thing that makes distance education impossible at that level.

I don't think universities should be just teaching institutions. People can do both teaching and research well. *I have to make choices in terms of my time budget and I have to keep in mind where the rewards will be here. But I have no problem with that [more emphasis on research than teaching] because that's why I came here and I enjoy doing research.* I haven't discussed distance education a lot with other faculty because it is not an issue in the department. The faculty would look at distance education in terms of the scientific, academic, and standards viewpoints, while administrators with look at it from an economic and practical stance.

The main adjustments to distance teaching would be explaining things without having the facial expressions of the students to see if they understand. It is satisfying to work with distance students because they are really motivated to learn despite their situations and that is exciting. I think they are very unusual people.

APPENDIX J
Interview Summary No. 575 (Divided)

My concrete knowledge of distance education is minimal. I heard about it through a friend of mine who became disabled by an accident years ago and completed her degree by correspondence.

Quality

My views about distance education are determined primarily by my beliefs about university education. *Really, how you are going to react to that [distance education] is what you think a university is all about. That's really the basic question and you can't say anything sensible about extramural education unless you have an idea of what university education is all about. ...I really think that the purpose of the university is to give. what was called....a small "l" liberal education. I don't think the purpose of the university is to turn out technocrats ...people who get a piece of paper so they can be employed.*

Based on my reading, I think there are six components to a liberal education: 1. some knowledge of what your culture is and how it got to be, such as in history and literature; 2. some idea of how the world works, as in the natural sciences; 3. what drives the economics of society, as in economics and political science; 4. a second language; 5. ability to put together a logical argument, as in philosophy; 6. ability to express yourself and to write well. *That's what a university education should do and I think they've gone away very much from that and I think it's a great pity.*

Philosophy and ethics have to be brought back into university education. The arts are the core of the university and I am ambivalent about having professional schools in university because they obscure the other functions. *The professional courses...[law, medicine] ...I've always been a little ambivalent about those being in the university just because they are professional courses and they obscure this other function of the university which I think is to be a repository of knowledge, to give those who are academically inclined, a chance to step off from society and look at society....In other words, I guess I'm going back to the old ivory tower definition of the university and I think there's a legitimate place for a university which is a repository of knowledge which provides an opportunity for people to think....detached from society.*

In a liberal education you need some learning on university campus that is no all formal course work but is talking with students and professors informally in *a testing of ideas and learning how to think and I don't think that could be done by correspondence. ....Universities are really there to make people think and I don't think you can do that entirely extramurally. I think you need the interaction between two people, or more, to get that kind of practice in thinking, of presenting and argument and of having it pulled to pieces and putting it back together again. I think that should be the function of a university.* The interaction is about discussing and exploring ideas. *A lot of it, I think, has to be informal and I think a lot is between or among students. I don't think it is necessarily taught by the professors.* I think tutorials are important in this respect. *I think these vast classes where a person gets up and lectures to 200 students who then turn in and essay which is marked....I don't think that's really what a university is all about...I probably am a dinosaur.* You have to set some standards of competence and that involves acquiring some facts but *above and beyond that they [students] should be able to manipulate those facts and not just regurgitate them back.*

I think some courses could be taken at a distance, but some courses must be taken on campus. Certain courses would lend themselves to distance education and others would not,

especially those that require laboratory work or the discussion and exploration of ideas. The core things like literature and philosophy, and courses that require laboratory work of any kind, should be taken at the university. The more technical courses could be done at a distance. Graduate degrees need the intramural experience, even more than undergraduates, because *you've got a higher level of skill not only in technical mastery of your subject, but the ability to think about it and manipulate it.*

Accessibility
Higher education should be accessible to anybody who has the intelligence to benefit and the desire. ....I think it's a shame that kids from the rural areas are at a real disadvantage in coming to university because it's just more expensive for them. ...I don't think that university education should be universal. I think that it should be for the bright students, for the people who can benefit from it....and not everybody is smart enough to go to university. That's perhaps a harsh thing to say but it's true. I believe in equal opportunities for people who have intelligence and I think that if a person has the desire and the ability that it's a great shame that they shouldn't profit from that.

The universities should be selective but I don't know how you should do it. Selection partly involves a value judgement about who is a better person. A great intellect is a very showy quality, but a kind heart lasts a lot longer. There are very kind people, who may not be very bright, but make tremendous contributions to the people around them. The brightest people may not be ethical or moral in their behaviour. *I don't ...put all my weight on just great intellectual qualities, because there are those other qualities which are enormously; valuable and I think that's one of the things that we've lost in our university education, is that people are able ... to drift through without encountering these six things I referred to before as being part of a liberal education. ...There should be some kind of streaming process and ...financial help for the bright kids who can benefit.*

I respect people who come back to study and work at the same time because it is very tough and it is difficult for adult, part-time students to have an intramural experience. *I think that if the university is going to give courses for that kind of person then they have the responsibility to get the professors there at night to do tutorials with these people so that they can have the kind of interactive experiences...that they're not just left taking lectures and turning in essays...that they do need some kind of small group teaching with senior staff.* Many people have not been able to go to university early in their lives for financial and other reasons that have nothing to do with their intelligence. So we should give people a chance to develop their capacities and even to take courses of high standards for interest, without getting a degree. Adult students may be more motivated and work harder.

Feasibility
There are helpful ways of communicating over distances now with technology but I still think you need that face-to-face interaction. Computers are very rigid and I think they are totally useless. Library facilities would be more of a problem in some distance courses than others. You might easily buy the paperbacks needed for a literature courses, but you would need access to a library to write essays. I don't know enough about costs or other resources needed for distance education to comment.

Faculty are often so busy doing research that they do not fulfill their obligation to teach. Teaching is underemphasized and it ought to be rewarded so that people will be more committed to teaching. The adjustments to distance teaching would involve the use of audio-visuals, especially videotapes. The possible satisfactions of distance teaching would be the same as for other teaching, enthusiastic student response.

APPENDIX J
Interview Summary No. 719 (Divided)

I know about some of the credit distance courses offered by UBC. Some of our students take one of the distance courses because it is an entrance requirement that they lack. I know about the distance education program offered by The University of Victoria which is designated to provide distance courses in my field. I have heard about distance courses at Langara and about the Knowledge Network. However, I have not thought about distance education in any depth or looked at the evidence of its effectiveness.

Quality

I guess that's really my primary concern, the quality of education, and so if you start off with the quality that we hope we deliver on a campus, [we have to ask] to what extent can it be replicated using various means. If distance education seems the best way, given the circumstances, *it's certainly the thing to do, rather than depriving people.*

Ideally, I would like to see some part of a distance program done on campus. That is a reflection of my own education. A residence requirement would be especially important at the graduate level. The exposure to other disciplines and to campus events aside from course work is important. *You see and hear people that you just wouldn't otherwise have the opportunity to see.* It is also helpful for students to be with people who are in the *same state of struggle* in their learning. *Learning in isolation* is difficult without contact with other students going through the *same kinds of dilemmas. I would expect that only certain kinds of people can really do it [distance education] without the stimulation of other people around...it really takes a tremendous amount of discipline...I think that's a lonely way to learn.* I believe that a great deal of learning has to take place in isolation, but the other interaction component does seem important.

Although technology is helpful, *it still doesn't deal with a group of students...[and] the kinds of stimulation that goes on and how you just are challenged...in quite different ways....I think group interaction gives you a different learning process.* It's a different kind of learning when you have your ideas challenged face-to-face and you are forced to defend them without writing things out and waiting for a reply. The turn around time for assignments and feedback affects the quality of student performance.

I think some courses are more suitable for distance education than others because of the importance of interaction in some types of courses.*It lends itself best to...courses where the student can read and the material is quite straight forward....so that they can move through it in progression.* I have doubts *when I think about our kinds of courses where a great deal of what goes on is thinking that is stimulated by interaction....Also, in the more theoretical courses,* where we put information *from several disciplines together ,......that is enhanced ...by talking out loud and having other people challenge your ideas. ...it's the challenging of your own ideas, and...positions, [that] I think is missing in distance education.*

I would have concerns about the performance of distance students, especially in courses with practical experience, because *it's very hard to control the level of field instruction when we cannot visit people on a really regular basis. I think they [distance students] need a tremendous amount of motivation and discipline,* otherwise students might have a negative educational experience. Part-time students who take courses over a long period of time probably get a different accumulation of learning than full-time students who take several courses at the same time and make more connections between courses. *It's complicated...you*

can have the philosophy, but then how you deliver it...is quite another thing that I have not thought much about.

Accessibility
Philosophically, I think it [higher education] ought to be available to everyone who has the ability and wants to do it. I want *people to develop their potential.* I don't think formal education is always necessary, but it is *a tremendous asset in living.* It opens up thinking because in universities *we're just forced to think about things we've never thought about before...you're aware of a greater range of what's possible.* My primary concern is that students know how to think when confronted with a problem and that they really know there is no set response.

A particular kind of ability must be considered in selection for university. *It does take a certain intellectual capacity to operate at a university...Ideally, I'd make those opportunities available for everyone who could benefit from them.... One of my concerns always is that when we make opportunities, that we also make sure....they are achievable...that we don't just set things up to disappoint people.* The flexibility of study time is an excellent feature of distance education. It would be especially helpful for adult learners because *one of the primary difficulties [for them] seems to be time, or timing.*

Feasibility
The cost of distance education presents a complicated resource allocation issue that requires thought. *It's unfortunate we have to make choices, but we do.* Libraries are a central part of education and if you only have access to a few books rather than thousands to choose from there would be differences in how students approach things. So I would be concerned about library facilities even though we now have more kinds of access. I don't know how much new kinds of interactive technology helps.

I think it would be important to have faculty with the expertise to prepare distance courses for quality. If faculty are preparing distance teaching materials on top of their other workload this could negatively effect quality. Time is a problem for faculty because of demands from both research and teaching. With young faculty, *the pressure on them to publish is just really so heavy that thinking about designing a distance education program would...be so far out of their mind, if they wanted to be university teachers. I think that there could be a better balance [between research and teaching].* Some people are very proud of the distance materials they have prepared, so that can be a source of satisfaction.

The general atmosphere in the department is that anything to encourage people to continue their education is positive, but the faculty regard distance teaching as terribly time consuming. It wouldn't be a priority with all the other demands on their time. They would support the concept of distance education but they would not become involved, even if they would like to be. Faculty decide in their own forums about things like distance education. Within the university, *the atmosphere...is that it's [distance education] regarded as a good thing, but not something we do.*

APPENDIX J
Interview Summary No. 164 (Opposed)

Most of my experience with distance education was with the correspondence division of the provincial education department for whom I did some marking. The courses were splendid.

<u>Quality</u>
In general, I think distance education is *a poor second-best* but if that is the only thing open to people I think we have to look at it. *I think certain courses lend themselves fairly successfully to distance education, but I certainly would not be in favour of a degree all through distance courses. Subjects where discussion doesn't play a large role are suitable for distance education but courses that involve a lot of subjective material are not. I think it's [distance education] a poor substitute for a classroom experience where you have a chance to ask questions...and where you see what a scholar in the field thinks about something.*

I think education is *a total experience and very often the things you learn at university outside the classroom are the best things. ...you forget most of what you learn in the classroom as far as facts are concerned, but you don't forget the attitudes, ...the personalities and you remember the feelings that prevailed in the class ...the discussions that went on outside of class; ...working in the library, ...looking at the stacks. Some of the best books you read are not the ones on your courses, they're the ones you came across through other students or on library shelves....All that is cut out from people who are doing things by correspondence....I am quite in favour of having that type of course* [distance education] *available for people but I don't think they should be encouraged to think education consists of compiling some credit material by memorising some facts and putting it into exercise forms and answering questions on an exam. I don't think that is what a good university is.*

I feel very strongly that distance education is not suitable for graduate education because *you have to be with scholars and with other graduate students. You are just piling up credits and getting certificates if all you are doing is sitting at home going over a body of work.*

My main concern is about the lack of campus experience in distance education and not so much about the calibre of students or about the quality of the teaching materials. I feel very sorry for working students who can't spend time on campus. They are really missing a lot of the value of university. Distance education is *better than not doing anything. Any chance to get educated should be taken,* but they miss the campus experience which involves a broadening of the mind.

Education is really the *opening of the mind and the development of critical judgement....It does equip you to handle the work world better....That B.A...helps you to live your life.* An educated person is able *to put things in perspective and to stand back and look at things objectively and then to judge the situation, evaluate it , and arrive at a course of action. You do learn that when you are in university. I think education is wonderful and if the only way people can get it is distance education or small colleges I think they should get it. I think it enriches individuals and society.*

Accessibility

I think this university is for the people of British Columbia and our prime role is to give the people of B.C. a good undergraduate education. University education *should be accessible to anyone who has a reasonable background and if people don't have a background but have equivalents, I think we should make it possible for them to get to university. I would prefer to see good distance education than substandard junior colleges. You can get a bad college, so I don't put distance education at the bottom of the list..* We should have more financial aid available to help older students come back to study. *It's too bad to penalize people for wanting to get an education so I would be for putting more money into student aid, but not limiting it just to people who are coming out of high school.* We should pay young people to come to university. By young people, I mean people up to middle age but not retired people as a general rule. It's not efficient if students have to work while at university because they need to concentrate on their studies. Distance education may be needed for people tied to a certain location with job and family responsibilities. *One of the better things I've seen is the return of women to university and many of the women in their 30s, 40s and 50s have just done splendidly.*

Feasibility

Faculty would need incentives to become involved in distance teaching. *It takes a long time to devise a correspondence course but it is not recognized as a particularly valuable piece of scholarly work ...and then the marking, I don't think it's regarded as first class academic activity and I don't think that's very fair.* I don't know about the adjustments to distance teaching but to give the detailed feedback on assignments that is needed, *you would have to be a very patient person.* Technology for interaction can make distance education better but *I just really think that people need other people.*

APPENDIX J
Interview Summary No. 572 (Opposed)

I have heard about distance education by people talking about it, but I am not sure how or where specifically. *My impression was that distance education may not provide sufficient contact between the student and the instructor.*

Quality
There has to be a lot of interaction between the professor and the student to properly educate people. Personal contact is important in the development of the students when we pass on our experience, expertise, and enthusiasm to the next generation. Education is not only to pass on knowledge which you can read about in a book. *I think the reason why I'm opposed to this distance education program is ...really from the interaction point of view. To me, knowledge is not as important as the development of the student.*

Education is how to develop the next generation of people to go out and be leaders in the community; it is not preparing people for a job. You can take vocational training for job skills. *What we hopefully provide for them is a training of the mind, development, because hopefully...when they go out there they will be our future leaders. They will drive other things.*

Education should open up the scope of the student's thinking rather than just acquire knowledge which becomes obsolete the minute it is written down. *The methodology and the philosophy of how to attack problems, how to solve problems, that has everlasting value, because those things will not go out of style. I see the university's major function in terms of education is really education in the true sense, not only just passing on information, really it's important to develop the students...if they are not developed to be able to become leaders, we have no future....that's the reason why I'm always very, very concerned about how much we can interact with students.*

I work very closely with graduate students especially and I like to interact with them daily. Graduate students must spend time in the university to learn how to do research. *People find it much easier to either learn about new things or accept new things, through more casual or spontaneous discussion , rather than a structured thing,* like the planned interaction you would get with technology in distance education.

Experience on a university campus is very important to broaden the horizons of students. The style of learning in university is more the real life of interaction with people and students need to interact with all different kinds of people. That is one of the greatest things about university. It is self limiting to go to university classes and then go home because it doesn't develop a broad mind; it is only getting knowledge and information. *A broad thinker, I think, certainly has an advantage over someone who is much more tightly focused. The central thing to me is the development of the student in the broad sense, not just knowledge.*

Distance teaching materials would need to have standards set by the faculty. We have to strive for high standards in every program.*When we have a distance education program we should make sure that people understand this is by no means an inferior program to accommodate inferior people. It's a special program set up to accommodate the special needs of people.* We also need to make sure the students have the background to really benefit from the program.

Accessibility

I think the idea of accessibility to higher education may be misunderstood. *In my opinion, accessibility means that if the student...is capable academically, intellectually capable of university education, he should not be restrained from going to university because of financial reasons. ...The system should be accessible to all those students who should be here, who have the quality to be here, but I don't believe we should make it accessible in the very general terms of whoever wants to come should be here.* We have to be very careful about setting the right standards and not change them because of external pressures. In order to see progress, a student should be better than the teacher and come out able to compete on the world stage. I select students who have scholarships. *I think it's important to get good quality people into the system, then when they go out you really have superior people, to compete as world class scientists, or [in] whatever profession.*

I think we should be selective about who we admit to university. Many people are happier and more successful in other activities. There are all sorts of people and we need a lot of people with careers studied in other institutions. Trades people are equally important. *I think we should be more concerned about quality than quantity.* We should try to achieve the highest standards possible, and if we succeed, we will have more capable people in the next generation.

The most important role of the university is to train people so they will go out and be leaders, not just successful workers, but the top ten percent in whatever career they choose. *I guess maybe I can be faulted in thinking that the university should be an elite place. I think it should be an elite place. ....we put our best people there so that the next generation of people will come out even better.*

The university should accommodate adult, part time students but we should be sure we are selecting programs of high quality that really benefit the students and are not just a pastime. *I don't believe in just giving people a piece of paper unless we can really help them, or help our society, in terms of advancing people's capabilities. ....I'm very, very aggressive in that way of thinking. I believe in pushing people to advance because...we shouldn't waste any human resources. ...We should push people so they will be leaders.* So we have to design a program that has true meaning in terms of advancement. However, *I think the university certainly can play a role, an important role in making ourselves useful, contributing to society by re-educating...some of the more mature population.*

Feasibility

We have to think about what is a proper education first and, if we truly give them an education, the cost is not so important. I have a philosophical difficulty with programs that only provide people with knowledge or information that you can read in books because that is not education. If there is a true benefit to a new program then we can justify the cost. I am not familiar with the logistics or costs of distance education but overall, I wouldn't have concerns about the people we would need to do distance education. *I believe that this is a very strong university. I'm sure that we have the resources and expertise to try to develop those new programs.*

Communications technology is not very helpful for personal interaction because it is structured. Instead, students should just drop in and talk in spontaneous discussion. Library resources are very important and if you can't get information fast you are at a tremendous handicap, especially in research.

I think the notion that research is rewarded more than teaching may be a local or isolated thing. The ability to teach is looked at closely in our department for hiring, tenure, and promotion. It is important to have faculty doing world class research so that excellence, enthusiasm and excitement can be passed on to students.

APPENDIX J
Interview Summary No. 740 (Opposed)

I heard and read about distance education in a general sense. My responses on the questionnaire were based primarily on how I would view distance education in my field.

<u>Quality</u>
I think distance education might be good for some courses and it might be *a grand idea, but I'm afraid all courses will be tarred with the same brush. There are some courses I think there is no possibility of teaching in distance education, absolutely none.* Distance education is utterly useless for my field, but it may be perfect for someone else's course work. In any performance course *at best it would be difficult,....I think impossible is closer to the reality of things....To assume that it's possible to do all course work with distance education, I think, is folly....I can't imagine all programs are totally different than ours. I just can't imagine it. ...I can't think of a single field where one should be able to do a complete degree by distance education. I just don't see how it's possible.*

My field requires interaction. *Unless there is some kind of Socratic relationship between students and the professorial staff, I don't see any possibility of any success....In a Socratic form of teaching,...one teaches by posing questions...and by probing deeply what another person's thoughts are on the subject and I don't think that's possible at a distance. I think ...one ends up getting a highly standardized education. It is great for specifics but probably gives the least amount of education.*

I don't think one can get an education without extensive interaction with other people, both in and outside of classes. *Education is not facts. Education is understanding and unless there is interaction with other people, I find it almost impossible to assume that anything you would get from distance education would be a real education.* One cannot get the same kind of education at a distance with the use of present communications technology. *It's just not the same as ...bumping up against group interaction and ideas. I just don't think there's enough student interaction [in distance education] ...and ferment available, no yeast...and I think one ends up with a wonderful piece of flatbread.* There has to be debate. Unless *things can be discussed extensively, actively, sometimes vociferously, I don't think it's really possible for anyone to gain from an education.*

The university campus experience is one of the most important things students have, just to bump into, to talk, and argue with people from totally different backgrounds. It was extremely important in my own education. Connections are made between different branches of knowledge and it becomes an opening and broadening experience for students.

One of the reasons I oppose distance education is that I think standards would drop. *I would not like to see ...a decrease in intellectual values. I would like to be able to think that the people we have in university are the very best minds available.* Other lesser talents should be getting an education elsewhere, perhaps at the colleges, which do a great job. We have space problems here at UBC. The calibre of students is very important to keep the standards high and I think that is the biggest problem. Distance students might not even complete their work and that would be a waste of every ones time. *I think it [standards] must continue to become higher ...we are a community of scholars and I would like for it to be that.*

Accessibility

I think mass education is a mistake.*The idea ...that everyone has a right to a university education is foolish. ....I think everybody has a right to an education at the level at which they can perform. Now, if they are not capable of performing, then they obviously have no right to it. All they deserve is an opportunity. Everyone should have an opportunity to go as far as they can go. Rights are something quite different.* Everyone is just not capable of a university education, and others are not willing or interested. *Maybe that's where ...distance education would be of greatest benefit, at the lower levels. I think the higher up the ladder one goes in education, the more difficult it is to deal with these particular difficulties. I don't believe in mass education. I don't think it's possible.* People can take courses if they wish, for as long as they can, and it may not lead to a degree, but *I don't think I would like to have them adding clutter to programs that require a rather incisive approach to their work, and reducing the chances for better students.*

I think universities should be very selective in order to train the best minds we have. Those who have less to offer should be served by other kinds of educational institutions. I think the biggest problem facing education is money. We have limited space and staff at universities. It would be a great idea to build more universities and staff them well. The *best minds are the ones that have to get first call, on the highest possible kind of education. ...It sounds awfully exclusive, and I don't really think I am, except that I'm concerned about the best people getting the best possible education.* We should select students on the basis of past records, testing, intensive interviews, and writing requirements. I think the university is doing the best it can for older students. The ones who come really want to and they are very successful. If we make it too easy for them, the standards may slip.

Feasibility

The feasibility problems with distance education would be *monstrous.* The *staffing would be phenomenal.* It would require a lot of support people and *I think we already have too many support people and not enough people teaching* now. The cost would be *outrageous.* Technology may be good in some fields, but I think at some point it ceases to be useful and becomes a hindrance. *I'm not convinced that the technology always will be effective. The best possible arrangement is a one to one relationship with a student and a teacher, or else a class body and a teacher.* Anything else that tries is, *maybe, third best.*

Library materials would have to be sent to the students at a terrible financial burden for the university and would amount to professors feeding the students what they think is important, instead of students investigating and finding out on their own. The and process of searching in the library is often more important than what one finds.

The conflict between teaching and research in university is *a great shame brought on by administration to primarily accrue financial assistance from industry at the expense of teaching.* I feel teaching is more important than research, and I would like to see it become, in fact, equally as important.*There ought to be an arrangement whereby the university could get back to being a community of scholars.* We have to create knowledge, but if we don't pass it on through teaching *it really makes the university into some kind of educational eunuch.*

I would listen to what other faculty have to say about distance education and they might be able to prove my views wrong. The deanship level and lower is where the work gets done so their views would be more important for plans toward implementation of distance education.

I think that a great teacher needs an audience to be most effective. They need the audience to enable them to excite and energize a class.The responses they get back from the students maintain the momentum. It is not the same teaching to a camera. *It doesn't take a television set to make a teacher dull. By the same token, I think it helps a great deal to make him dull, if he isn't dull....It would just knock the life out of teaching for me.* Some people can charm a camera, but most people cannot.

APPENDIX K

Adult and Higher Education
University of British Columbia
South Staff Office Block, Rm. 17
July 5, 1991

Dear Professor

I am enclosing my summary of our interview conversation last term regarding your views about distance education. The summary consists of, 1. paraphrased statements of your responses to my questions, using your key words and phrases; 2. your verbatim statements (italicized) as recorded on audiotape. The summary is organized under the general topics of quality, accessibility, and feasibility.

I have attempted to capture the essential aspects of your responses. If, however, this summary does not represent your responses during the interview, then I ask you to make what you think are the necessary changes on the summary and send your revisions to me in the enclosed envelop. I will require such noted changes no later than September 15, 1991. If you find the attached summary satisfactory, then there is no need for you to respond.

Let me assure you again that this material will continue to be treated confidentially. Your name will not appear in the study and any excerpts reported from this interview summary will use a number only, with possible reference to your discipline grouping and gender.

Again, I thank-you for your time and participation in my research.

Yours sincerely,

Joyce Black, Ed. D. Candidate

APPENDIX L

Characteristics of the Population, Survey Sample, and Respondents.

Table I. Survey Population by Disciplinary Classification and Gender in Frequencies and Percentages of the Total Population for Subgroups.

Disciplinary Classification	Male	Female	Total
Hard, Pure	234(14%)	12(0.66%)	245(14.6%)
Hard, Applied	574(34.4%)	93(5.6%)	667(39.9%)
Soft, Pure	325(19.5%)	76(4.6%)	401(24%)
Soft, Applied	266(15.9%)	92 (5.5%)	358(21.4%)
Totals	1,399(83.7%)	273(16.3%)	1,672(100%)

Table II. Survey Respondents, Sample and Population by Disciplinary Classification

	Respondents n=	%	Sample n=	%	Population n=	%
Hard, Pure	66	(13.6%)	111	(15.5%)	246	(14.7%)
Hard, Applied	178	(36.5%)	242	(33.8%)	667	(39.9%)
Soft, Pure	116	(23.8%)	174	(24.3%)	401	(24.0%)
Soft, Applied	127	(26.1%)	186	(26.0%)	358	(21.4%)
Totals	487		713		1672	

Table III. Survey Respondents, Sample, and Population by Gender

	Respondents n= %		Sample n= %		Population n= %	
Female	200	(41%)	270	(38%)	273	(16%)
Male	287	(59%)	443	(62%)	1399	(84%)
Totals	487		713		1672	

Table IV. Respondents, Sample, and Population by Rank

	Respondents n= %		Sample n= %		Population n= %	
Professor	146	(30%)	251	(35%)	699	(42%)
Associate	162	(33%)	229	(32%)	508	(30%)
Assistant	179	(37%)	233	(33%)	465	(28%)
Totals	487		713		1672	

Table V. Respondents, Sample, and Population by Tenure Status.

	Respondents n= %		Sample n= %		Population n= %	
Tenure	313	(64%)	490	(69%)	1229	(74%)
Non-tenure	174	(36%)	223	(31%)	443	(26%)
Totals	487		713		1672	

Table VI. Respondents, Sample, and Population by Eight Age Groupings.

	Respondents		Sample		Population	
	n=	%	n=	%	n=	%
Under 30	9	(2%)	12	(2%)	24	(2%)
30-34	49	(10%)	65	(8%)	126	(8%)
35-39	77	(16%)	104	(15%)	202	(12%)
40-44	75	(15%)	100	(14%)	248	(15%)
45-49	102	(21%)	150	(21%)	356	(21%)
50-54	84	(17%)	135	(19%)	322	(19%)
55-60	64	(13%)	98	(14%)	223	(13%)
60 and over	27	(6%)	49	(7%)	171	(10%)
Totals	487		713		1672	