PRESENCE AT A DISTANCE:
THE EDUCATOR-LEARNER RELATIONSHIP IN DISTANCE EDUCATION
AND DROPOUT

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ABSTRACT

The purpose of the present study was to provide an understanding of the educator-learner relationship in distance education and then to identify and discuss parts of that relationship associated with dropout. Its underlying assumption was that education, at a distance or face-to-face, involves an educator-learner relationship. There were three justifications for this investigation: to illuminate the educator-learner relationship, to contribute to research on dropout in distance education, and to foster integration between practice and scholarship in the field.

The scope of the first research question, what characterizes educator-learner relationships in distance education? necessitated drawing on a broad data base and suggested an interpretive study. The research method chosen was an integrative review of scholarly literature in the field of distance education. In answer to the first research question, the educator-learner relationship in distance education was conceptualized as a wheel with an axle of dialogue, spokes of support, and a rim of independence. The development of this model was the most important result of the present study.

Concern among practitioners over high attrition rates led to the second part of the purpose and the second research question, what characteristics of the educator-learner
relationship in distance education are associated with dropout? In answer to this question, findings from the dropout literature were filtered through the model of the educator-learner relationship in distance education. Tinto's research into dropout from higher education informed the analysis. Results indicated that perceived deficiencies in dialogue along the spokes of support in the quadrants of learning and instruction have been associated with dropout. This study recognized that the relationship between educator and learner affects student perceptions of intellectual and social integration and so may influence dropout.

Recommendations for research and practice were generated from the model of the educator-learner relationship in distance education. Presence at a distance can be enhanced by a dialogue-centred practice. Suggestions included the tracking of students, professional development for practitioners, and evaluations of distance education practice based on the model of the educator-learner relationship in distance education.
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CHAPTER I
INTRODUCTION

The purpose of the present study is to provide an understanding of the educator-learner relationship in distance education, and then to identify and discuss parts of that relationship associated with dropout.

Its contribution to knowledge lies in the development of a theoretical model of the educator-learner relationship which is then linked to a new perspective on dropout from distance education. Rather than identify institutional characteristics or learner characteristics connected with dropout, as most previous research has done, the present study focuses on the relationship between educator and learner as an influence on dropout.

Chapter I introduces the analysis of educator-learner relationships and their association with dropout in distance education. It provides three justifications for undertaking the present study: to illuminate the educator-learner relationship, to contribute to research on dropout from distance education, and to foster integration between practice and scholarship in the field. It then states the research questions and concludes with an overview of the dissertation.
1. Background: Why This Study?

Learning may be done alone, but education requires a relationship--direct or mediated--between educator and learner. The nature of these relationships varies. Perhaps the most familiar, typical of traditional schooling, occurs when one teacher meets face-to-face with a class of students. Today, the reverse of that is also possible: a solitary student can engage in a mediated relationship with a group of educators. There are now people all around the world who take courses in which the role of teacher is performed by an institution. Such educational relationships may be unconventional, but they have led many thousands of students to the successful completion of programs and degrees. They also, very often, lead to dropout.

Less traditional forms of the educator-learner relationship epitomize distance education. The mistrust with which this mode of education has often been viewed seems connected to questions about how present a teacher can be for a student at a distance. Research has demonstrated that distance education students do as well as, if not better than, their counterparts in traditional modes when writing the same examinations (Moore, 1985). Despite this fact, worries persist about the quality of educator-learner relationships in distance education.
There are practical reasons for studying the educator-learner relationship in distance education: it affects program development, course design and delivery, student support services, and institutional goals. Understanding the educator-learner relationship may help institutions assess the quality of their teaching. As generations of teaching materials age and require revision—and as distance education institutions prepare more new courses—there is a need for guidelines and tools that can be used in course and program evaluation.

In regions such as India, parts of Africa, and South-East Asia where conventional universities and vocational colleges cannot meet the needs of large and often impoverished populations, distance education has become a prevalent mode of educational provision. Its impact is also being felt in more industrialized countries where distance education is promoted as a way to provide workplace training of the labour force. The need for appropriate theoretical analysis to serve as a guide for practice is becoming increasingly apparent.

What makes for good educational relationships at a distance? Is dropout from distance education the result of weak educator-learner relationships? The present study takes steps to answer these questions through an investigation of the educator-learner relationship in distance education and an examination of how that relationship affects dropout. In so doing it contributes to the development of theory and the refinement of practice.
A. Educator-Learner Relationships

More than one hundred years ago, Harper, the first president of the University of Chicago, made some observations about correspondence teachers and students which are provocative today.

"...it will be seen that the correspondence teacher must be painstaking, patient, sympathetic, and alive; and that the correspondence pupil must be earnest, ambitious, appreciative and likewise alive. Whatever a dead teacher may accomplish in the classroom, he can do nothing by correspondence; and if a student lacking the qualities just named undertake work by correspondence, one of two things will happen: either he will acquire these qualities, and succeed; or he will remain as he was at the beginning, and fail. The man who does the work at all, must do it well. (Harper, 1886, in Mackenzie & Christensen, 1971)

Harper's comments emphasize the need for a serious, respectful, personalized and lively correspondence between an educator and a learner working at a distance from one another. As technologies have advanced and the numbers of students grown, the postal correspondence which Harper knew has been enlarged. Distance education allows for many forms of mediated communication; it also accepts larger distances of time, as well as of space, between the acts of lesson-preparation by the educator and study by the learner.

Peters'(1971, 1983) concept of the rationalization of the educator-learner relationship so that it resembles industrialized manufacturing suggests that elements of the role of educator can be performed by a team of people who are
at distances of space and time from their learners. This suggestion has been borne out by fact. In centralized and industrialized systems of distance education such as the Open University of the United Kingdom (OUUK), the course writer or television producer may create instructional materials years before the student reads the study guide or watches videos of the programs. While the OUUK student can discuss the course content and its presentation with a tutor, distance education systems vary in the amount and quality of dialogue or correspondence possible between educators and learners. In some cases the student is a consumer of aids to learning and then a contender for credit by means of an examination, rather than a participant in a two-way educational relationship.

As distance education has evolved beyond direct tutoring through correspondence to the centralized preparation of large course packages and the use of mass media, two things have happened to its educator-learner relationships. First, they have developed a complexity of modes and levels. Second, when opportunities for two-way communication are limited, these relationships may exist primarily in an abstract and tenuous form. Harper's depiction of the personal involvement between a correspondence teacher and a student would not be representative today of the experience of all educators and learners engaged in distance education.

The other provocative element in Harper's statement is that the correspondence student will either measure up to the
high standards of performance expected, or fail. Distance education can be a demanding way to teach or to study. It may take more reading and independent study on the part of the student, and more writing and structured thinking on the part of the educator, than would an equivalent course taught face-to-face. This generic difficulty may contribute to the generally high rate of dropout from distance education, although actual failure is now rarely the biggest threat to successful course completion (Bååth, 1984). Perhaps students who anticipate failure tend to dropout in advance of that event. While the statistics vary from course to course and institution to institution, it is probably safe to say that overall, about half the students who start distance education programs do not complete them (Bååth, 1984). The converse is also true: half the students who begin persist.

Chapter IV discusses the educator-learner relationship in distance education in depth, develops a conceptual framework identifying its salient characteristics and proposes a model describing its functions.

B. Educator-Learner Relationships and Dropout

If we wish to understand healthy educator-learner relationships in distance education, why look at dropout? There are three reasons. First, investigating the discontinuation of educator-learner relationships can yield information about how to preserve them. Second, dropout has been a major concern for both practitioners and scholars in
distance education, and progress towards understanding, predicting, and controlling dropout would be a welcome contribution. Finally, largely because of this concern, distance education has produced a substantial discourse on dropout: and consequently, a source of data bearing on the discontinuation of educator-learner relationships. While connecting educator-learner relationships in distance education with dropout, the present study also seeks to identify characteristics which may discourage dropout and encourage persistence.

Chapter V discusses dropout and analyzes the distance education dropout literature that can be associated with the educator-learner relationship. Much of the research in distance education is limited in quality (Moore, 1985), and this is also true of the dropout studies (Garrison, 1987). Simply defining dropout is difficult since institutions have their own interpretations of what constitutes that phenomenon. However, quite a large body of work exists and the present study uses it as data.

**C. Integration of Practice and Scholarship**

Distance education is a new territory—an educational frontier. Its practitioners are drawn from a variety of disciplines and professions and often have little knowledge of distance education as a field of study. Some arrive with a hunger for research to inform them about the field and guide them in their creative, and challenging, work. Others are
sceptical about the practical value of distance education scholarship.

In her keynote address on research at the International Council of Distance Education's 14th World Conference, Calvert (1988) identified antagonism between scholarship and practice as the fundamental problem facing distance education. Calvert made a number of suggestions. She called on scholarship "to relate its constructs in meaningful terms to the complex practical world" and said:

> the tasks facing researchers are to integrate the diverse "mini-theories" that have evolved largely in isolation from one another and to relate these more clearly to the concrete experiences of distance education practice. (1988, p. 7)

Calvert's prescription is congruent with Holmberg's observations about "Research as catering to the needs of theoreticians and practitioners" (1988, p. 1). Holmberg, basing his analysis on Popper (1980), argued that responsible scholarship is both theoretical and practical.

Fortunately these concerns of the practitioner and the theoretician converge. The latter's aim "is to find explanatory theories (if possible, true explanatory theories); that is to say, theories which describe certain structural properties of the world, and which permit us to deduce, with the help of initial conditions, the effects to be explained" (Popper 1980 p. 61). . . the task of scholarship is on the one hand theoretical, to bring about explanation, on the other hand practical, to provide for application or technology. . . Application, whether seen as consideration of target groups and study goals, methodology or administration, media selection or technology, or some other aspect of practice is, of course, exactly what the practitioner is primarily interested in. (Holmberg, 1988, p. 1)
The present study seeks to "integrate diverse 'mini-theories'" and relate these "to the concrete experiences of distance education practice" (Calvert, 1988).

So far, Chapter I has introduced the discussion of educator-learner relationships in distance education and outlined three justifications for undertaking the present study. The remainder of the chapter will state the research questions and provide an overview of the dissertation.

2. The Research Questions

The basic assumption which underlies the present study is that:

*Education, at a distance or face-to-face, involves an educator-learner relationship.*

There are two research questions:

1. **What characterizes educator-learner relationships in distance education?**
2. **What characteristics of the educator-learner relationship in distance education are associated with dropout?**

Before addressing the first research question it was necessary to define distance education and arrive at an understanding of its components. Similarly, before addressing the second research question, it was necessary to understand dropout.
3. Overview of the Dissertation

Chapter I, Introduction, establishes the research questions and provides background for the present study.

Chapter II, Method, describes the research design and method in detail.

Chapter III, Understanding Distance Education, defines distance education and provides an overview of relevant research and theory in the field.

Chapter IV, The Educator-Learner Relationship in Distance Education, answers the first research question. It synthesizes a conceptual framework of the educator-learner relationship from distance education scholarly literature and proposes a model of that relationship.

Chapter V, Dropout Studies and the Educator-Learner Relationship in Distance Education, answers the second research question. It provides theoretical background for understanding dropout from distance education, and then screens distance education dropout literature through the model of the educator-learner relationship developed in Chapter IV.

Chapter VI, Presence at a Distance: Inferences for Research and Practice, discusses the implications of the present study for basic research and for research, development and practice at the level of the institution.
CHAPTER II

METHOD

Chapter II shows how the method arose from the study's purpose and research questions. The first part of the chapter provides background which helps to explain the approaches used; the second part gives details about the actual sources drawn upon to make this study as comprehensive as possible. The discussion of method begins by introducing the interpretive tradition of integrative literature reviews to which the present study belongs. Common benefits derived from using literature as a data source are listed and methods employed in the study to establish trustworthiness are described. The second part of the chapter outlines the processes followed during data collection and analysis and ends with a note about writing the research report.

1. Approaching the Problem

The purpose of the present study—to provide an understanding of the educator-learner relationship in distance education, and then to identify and discuss characteristics of that relationship associated with dropout-
suggests an interpretive approach because the problem is conceptually complex and intertwined, and there is a need to provide understanding. The study's purpose has a scope which requires drawing data as widely as possible, from a number of settings and cultures. Distance education is larger and more complex than any single example of it; the educator-learner relationship in distance education exists in a variety of forms. The scholarly literature of the field offered a good place to find the necessary breadth of information.

The data needed to answer the first research question—What characterizes educator-learner relationships in distance education?—come from the analysis of literature representing distance education as a whole (the more theoretical writings that have begun to synthesize experience in the field), integrated with related pieces of research describing individual situations. Likewise, the data needed to answer the second research question—What characteristics of the educator-learner relationship in distance education are associated with dropout?—come from a review of the disparate and voluminous literature on dropout (primarily in distance education though also some works from higher education and adult education) which was searched for findings associated with the educator-learner relationship.

Using scholarly literature as data is a mode of investigation which can be undertaken by one researcher with marginal funding. It does, however, require a great deal of time, attention, and cumulative analysis. Luckily, there are
general advantages to using this method, some of which are listed below.

**Breadth**: These data—collectively—have breadth in that they were arrived at by different researchers working in different systems.

**Currency**: Using scholarly literature as a data source builds knowledge on the research front. It makes research cumulative, growing out of material in the field, so that advances of the past are incorporated in current understanding and new analysis.

**Generalizability**: The breadth of these data may support their generalizability.

**Influence**: These data are all in a position to have influence because they are published—and, by having influence, they are more likely to reproduce themselves. It is easier for someone to name that which has already been named than to recognize the previously un-named experience. Similarly, these articles shape the debates in the field, and contribute to the construction of a discourse.

**Openness**: These data are open to scrutiny and are relatively stable: a person who wishes to do so now or in the future may consult original data sources from the present study.

**Parsimony**: These data have already been distilled in a number of ways. The literature has encoded raw experiences (often non-verbal as well as verbal) in the linear syntax of English so comparison is facilitated.
Relevance: Published scholarly writings have been screened by editors and sometimes by juries, so other readers have judged them to have value and considered them to be relevant.

Utility: Synthesizing literature in any field helps practitioners or other researchers.

While these advantages may result from the use of scholarly literature as a data source, the quality of the research is more dependent on the rigor of its analysis than it is on the origin of its data.

There are, of course, drawbacks to the use of literature as data. Several of the most significant are listed below.

Access: The researcher mainly has access to published products; meta-research is not only dependent on primary research, it is restricted to accessible primary research.

Language: Another restriction on accessibility is language of publication.

Quality: The most careful and insightful secondary analysis cannot improve the quality of primary research that is slipshod.

Purpose: A more subtle problem derives from attempting to use data collected for one purpose to serve another—in this case, to derive information about the educator-learner relationship from studies that were not undertaken with that concept in mind.
A. Integrative Reviews

The research tradition to which this study belongs includes the range of approaches from a simple literature review to sophisticated statistical meta-analysis. A simple literature review aggregates information. Integrative reviews take the common literature review at least one step further—an integrative review not only aggregates and analyses the literature, it also synthesizes something new from that analysis. The data may or may not be quantitative in nature. Research on statistical research, often called meta-analysis, can still be referred to by the broader term of integrative research review.

Probably the best name for the kind of integrative review undertaken in the present study is meta-research (Sork, 1982). Sork defined it as "systematic study of the processes and products of inquiry which characterize a discipline or field of study, or, more simply, research on research" (1982, p. 1). He suggested a typology of meta-research. The present study would fit under his Type III, "Critical Reviews on Specific Topics" (pp. 10-12).

Meta-research differs from meta-analysis in that it makes no attempt to combine statistics from its source documents in a secondary statistical analysis. Meta-research is qualitative rather than quantitative. As such, the relevance of its data is of primary importance; in meta-analysis, it is the quality of the data which is crucial.
Cooper (1982) conceptualized the process of doing an integrative review in five stages that are similar to those of primary research: "(1) problem formulation; (2) data collection; (3) evaluation of data points; (4) data analysis and interpretation; and (5) presentation of results." The present study went through such a process and adopted Cooper's (1984) suggestions for the data collection part of this process.

The following section addresses the need for trustworthiness as a basic requirement in all qualitative analysis, and shows how the present study has responded to this need.

**B. Establishing Trustworthiness**

Rigor—and trustworthiness—in qualitative analysis has to do with credibility, transferability, dependability and confirmability (Guba, 1985).

Credibility may arise from triangulation: the use of several sources. Data in this study were drawn from many sources and a number of contexts. The contexts included:

1. centralized systems of distance education
2. decentralized systems of distance education
3. European distance education institutions
4. North American distance education institutions
5. Australian distance education institutions
6. Asian distance education institutions
7. a South American distance education system
Transferability allows a reader to compare one context with another and determine whether the findings in the first might be transferred to the second. Transferability is facilitated when the research report relates its findings to a thick description of the context from which they emerge (Geertz, 1973). The present study documents the literatures used as its data sources. As well, to ensure the comprehensiveness of its data and thus increase the number of contexts to which they might be transferable, experts from distance education systems in various parts of the world were asked to supplement the working bibliography (see Appendix 1) with references to significant theoretical and research literature that had been missed. Their additions were few in number, but valuable (see Appendix B).

Like transferability, dependability is built by thoroughness. If the logic connecting a chain of evidence derived from multiple sources is made clear, others can follow it and identify its strength or weakness. Dependability is often established by an inquiry audit (Guba, 1985)—by asking for a second opinion on judgments. By consulting experts, the present study enhanced its dependability as well as its transferability.

Confirmability is also associated with what Guba and Lincoln (1982) called the audit process. This process makes the procedures of research visible so that their consistency and credibility may be confirmed by independent auditors. For this reason, Chapter II delineates the research method in
detail. The means for establishing credibility, discussed above, also enhance the dependability of the research and its confirmability.

Rigorous qualitative research is clear, open, accessible and replete with specific detail. It takes the reader right into the context. At the same time, it reduces the confusion of a large body of data by identifying common themes and essential characteristics. The present study has been written with these objectives in mind.

2. Data Collection

This section describes the process of collecting and evaluating the data. It employs Cooper's (1984, pp. 38-57) terminology. He provides a useful discussion of methods for data collection for integrative reviews which has served as a guide for the present study.

A. Informal Channels

Cooper (1984, p. 55) warned that "information contained in informal channels is not likely to reflect information gleaned from all potential sources" but acknowledged that information from informal channels is likely to be more recent than that acquired through formal channels. The present study drew data from the several informal channels
Cooper identified: personal research, "invisible college," and professional meetings.

Personal research on relationships between adult educators and learners as depicted in a work of fiction (Munro, 1987) led to a preliminary analysis of educator-learner relationships in distance education (Munro, 1989) and to the focus of the present study.

Over the past several years at least thirty or forty people--academics and distance education practitioners--have served as a kind of "invisible college" for the present study. This college includes people on several continents with a wide range of experience. They have shared their knowledge, suggested data, and reflected on ideas.

Discussions with some of these people took place at professional meetings. These included local, national and international conferences and teleconferences for groups such as the Canadian Association of Distance Education, Canadian Association for Studies in Adult Education, Adult Education Research Conference and a joint meeting of SCUTREA/ AERC/ CASAE. As well, visits were made to distance education facilities in Canada and abroad, including one to Indira Gandhi National Open University in New Delhi.

These informal channels have been a stimulant and source for the present study and have complemented the formal search.
B. Formal Channels

Following Cooper's (1984) suggestion, the formal search for data began with books and journals (Cooper's primary formal channels) and involved what he called the ancestry approach, where one source leads to others. The formal search investigated the holdings on distance education in two libraries: The University of British Columbia (UBC), and the Open Learning Agency (OLA). The Open Learning Agency (British Columbia's Open University, Open College, and Knowledge Network) subscribes to a dozen or more journals dealing with distance education, including Distance Education, Open Learning (previously Teaching at a Distance), Epistolodidaktika, American Journal of Distance Education, Journal of Distance Education, and Research in Distance Education. As well, the OLA library is a good source of English-language books and conference proceedings on topics in distance education published in the last decade. These books and journals led to other works cited in their reference lists.

The OLA library has at least two limitations: it originated about ten years ago and so holds mostly recent works, and it has very few works that are not in English, but it still has a larger and more up-to-date collection on distance education than does UBC, or any other library in British Columbia. UBC does hold some earlier publications, articles on microfiche, and government documents not
available at OLA, and UBC's library has a wealth of what Cooper calls secondary channels. The interlibrary loan service made some further material, not in the OLA or UBC libraries, available.

As Cooper (1984, p. 42) recommends, what he calls secondary channels formed the backbone of the literature search. He suggests going to: bibliographies, government documents, indexing and abstracting services such as ERIC, Dissertation Abstracts, Social Sciences Citation Index, and computer searches. Articles in educational encyclopedias and a number of educational bibliographies provided starting points for branching bibliographies leading to books and journals. Bibliographies specific to distance education (Holmberg, 1977 and 1985b) were especially helpful.

One of the earliest tasks was an attempt to identify seminal works in distance education based on references in the Social Sciences Citations Index. This did not yield convincing results because the literature has burgeoned recently and often appears in sources not indexed, but also because the convention of citing previous research has not been well established in this field. That search for seminal works led to the identification of a collection of essays, Distance education: International perspectives, edited by Stewart, Keegan and Holmberg (1983) as possibly the most influential single book, containing as it did a cross-section of historical and recent work. The few authors and works which did appear in the SSCI tended to be included (if
extracted) in that collection. As well, the conference proceedings from the International Council of Distance Education seemed central to the field and were quite often the source of papers cited in reference lists.

Government documents and the publications of UNESCO and The World Bank yielded occasional material. Dissertation Abstracts gave information about several relevant dissertations. Harry and Ismail's promised computerized data base of research in distance education (located at the British Open University) kept looming on the threshold of availability during the search. This service should be valuable in the future.

Perhaps the single most fruitful secondary channel was ERIC—the Educational Resources Information Center. A number of computer searches were run through the ERIC system—on distance education theory, dropout in distance education, dropout in adult and higher education, meta-research and integrative reviews. The most successful of these was the one on dropout in distance education. Its descriptors were "DISTANCE EDUCATION.AND.(DROPOUT RESEARCH.OR.DROPOUT CHARACTERISTICS.OR.DROPOUT ATTITUDES.OR.ACADEMIC PERSISTENCE.OR.PARTICIPANT SATISFACTION)." This search resulted in 11 ED (educational document) hits and 10 EJ (educational journal) hits, all of which seemed worth reading, and these in turn led to further material. Some other ERIC searches were less fruitful, producing many hits but mostly discardable abstracts. Interestingly, a search
which had previously drawn a blank was repeated in June, 1989, but this time run online. The descriptors were DISTANCE EDUCATION AND (THEORIES OR THEORY PRACTICE RELATIONSHIP). This search resulted in no ED hits and 1 EJ hit which had already been discovered.

**C. Confirming Comprehensiveness**

The final step in the data search and an important step in data evaluation was to send the working outline and bibliography for this study to expert researchers in the field and ask for their comments and notes regarding any major studies that were missing. Letters went to leading English-speaking educators and researchers in distance education in Canada, the United States, the United Kingdom, Germany, Sweden, Norway, Holland, Kenya, India, Australia and Hong Kong. In selecting these experts an effort was made to get representation from a variety of distance education systems and centres. These included the new Commonwealth of Learning; the centralized British Open University (OUUK) and German Fernuniversität; the decentralized systems in Australia and Sweden; Indira Gandhi National Open University in India; the Open College of the University of East Asia, Macau, in Hong Kong; the *American Journal of Distance Education*; and universities in North America. Appendix A consists of a copy of the letter sent out, a list of the researchers consulted, and copies of their letters.
Their replies were helpful and supportive. Several people sent papers and even books, recognizing that they would not be available here. Most had no major criticisms of the research design. The two most interesting critiques could be set aside, after reflection. The first of these was that the present study should "look at dropout and retention rates in conventional part-time education alongside those for distance education." Chapter V does present some data on this topic, but the present study really focuses on the impact of the educator-learner relationship on dropout from distance education. The accompanying suggestion, that dropout should be investigated in connection with the nature of the educational materials used, also seemed outside the scope of this dissertation. Both these issues have been discussed, in a limited way, in the present study. The second provocative suggestion was that it would be better to investigate "institution-learner" instead of "educator-learner" relationships. The present study makes it very clear that the educator it speaks of is often a distance education institution. The focal term has been left as "educator-learner relationship" because that is what was investigated here. This suggestion has much to recommend it however, and could be considered for a follow-up study.

D. Data Limitations

A major limitation to this study was language. Luckily, English tends to serve as a lingua-franca for distance
education research, but there are documents published only in German or in Spanish (for example) which are not included.

Time posed another problem. The lag between research and publication, and the lapse between data collection and the completion of this study, means that not all current research could be represented in the accessible population, let alone in the sample of it drawn for this dissertation. January 1, 1989 was the cut-off date for data collection, although a number of later publications and several which were then in press have been included.

Since the educator-learner relationship is central to education, it is not surprising that aspects of it appear under a number of topics. The literature of dropout may well provide the most extensive discourse related to the educator-learner relationship that exists in distance education. However, by choosing to look at the educator-learner relationship in the context of dropout, the present study obviously missed data in other areas.

3. Data Analysis

Data evaluation and analysis has gone on from the beginning of the present study in a process resembling the constant comparative method (Glaser & Strauss, 1967), which is used when developing grounded theory. The search for data necessitated several stages of evaluation. Judgments had to
be made about whether a citation in a bibliography or an abstract sounded like something worth reading. Of those studies read, further evaluation determined what the material had to offer to the present study. As more work was examined, it was necessary to re-read texts to see if something had been missed or if the original assessment had changed. This process allows the researcher to learn as the study progresses, and it leads to the identification of overall patterns. The criteria for judging grounded theory—that it must both fit and work in practice (Glaser & Strauss, 1967)—underlay the process of on-going evaluation. Keeping a practitioner's eye while reading meant considering theoretical issues from the perspectives of different situations in which distance education occurs.

Although the analysis was cumulative—begun with the first reading of each piece of literature in the data base and continued as that data increased—and required on-going revision, reflection and reorganization, two stages might be identified. They were not discrete; the study evolved holistically.

- The first stage of analysis culminated in identification of a conceptual framework and the production of a model.
- The second stage of analysis involved the use of that model and conceptual framework.
The progress towards abstraction led, in the end, to connecting the abstractions to problems met in actual practice.

Several tools for abstraction were employed during parts of the data analysis. These included Keegan's (1980; 1986) definition of distance education, several mini-theories from distance education, Tinto's theory of dropout from higher education (1987), plus the conceptual framework of educator-learner relationships in distance education and the model developed in the present study.

Writing the research report was itself a stage of data analysis since it entailed further reflection and the articulation of findings in a logical structure. Jackson writes:

It is a widely held precept in all the sciences that reports of research ought to include enough information about the study that the reader can critically examine the evidence. This precept probably also should apply to integrative reviews, since such reviews are a form of research. (1980, p. 456)

Cooper (1984, pp. 114-124) emphasizes that the report of an integrative review should follow the same structure as would a report of primary research—that is, it should have sections devoted to introduction, methods, results and discussion.

Glaser and Strauss (1967, pp. 223-230) take a different tack. They talk about how the research is brought to a close when the researcher, who knows the data systematically, "believes in his own knowledgeability and sees no reason to
change that belief." They ask, "Why does the researcher trust what he knows?" and they see the reporting of what the researcher knows as a task of conveying credibility.

The researcher's task of conveying credibility is actually much like that of the realistic novelist, though the latter's analytic framework--his interpretation--is generally much more implicit. (p. 229)

These three pieces of advice provided criteria for writing the present study.

4. Summary

Chapter II, "Method," describes the research design (the integrative review), its tradition, its advantages, and its methods. As well, this chapter has explained how the pieces of literature were chosen, the data evaluated, analyzed, and reported.

Chapter III, "Understanding Distance Education," is the first of three chapters devoted to data analysis and interpretation, and to the presentation of results.
CHAPTER III
UNDERSTANDING DISTANCE EDUCATION

Chapter III addresses important background issues for the present study. The connection between distance education and open learning is clarified and distance education is defined. An overview of scholarly literature in the field leads to the presentation of research bearing on particular components of distance education. A number of "mini-theories" are then introduced and the chapter ends with a summary.

1. Distance Education in the Context of Open Learning

The notion of openness has become a meta-concept in the scholarly literature of the field; it also plays an important role in the present study. The following section presents some of the thinking associated with the concept of openness and clarifies the connection between "distance education" and "open learning"—a pair of terms which are sometimes used as if they were synonymous. Understanding the connection between distance education and other modes of education, especially within the context of open learning, helps to clarify the
frame of circumstances about the educator-learner relationship in distance education.

When properly used, the term "distance education" refers to the method by which instruction is offered, and the term "open learning" refers to the goals and policies of an educational system. Rumble (1989) explains that distance education is a mode of education on a continuum with contiguous education. He argues that courses and programs can be placed on a continuum from the highly contiguous to the purely distance-based. Distance teaching institutions often provide for some contiguous interaction; traditional systems may make use of resource centres (language labs, for instance) or independent directed study courses which depend on reading lists. Open learning, on the other hand, refers to an educational policy.

...the two concepts deal with different things, the former [distance education] stressing the means by which education is achieved, the latter [open learning] the objectives and character of the educational process. (Rumble, 1989, p. 30)

Historically, traditional Western education has been teacher-controlled and attached to geographic locations. Open learning entails a reconceptualization of the historical educator-learner relationship. Because distance education is an important mode of provision for open learning, it may incorporate these developments. Ideally, open learning allows any learner access to all education. And, again ideally, open learning levels the educator-learner relationship by giving the learner more control: she or he might study when and
where it is convenient, combine educational credits from various sources, design and redesign a personal educational program. Most learners involved with open learning are adults, a fact which also works to level educator-learner relationships. However, distance education students are not necessarily participants in an open leaning system, although open learning usually includes distance education.

The educational modes present in open learning can be shown on orthogonal axes of "face-to-face" <--> "mediated communication" and "location fixed" <--> "location free." Figure 1 illustrates this.

```
face-to-face

<table>
<thead>
<tr>
<th>traditional mode</th>
<th>itinerant mode</th>
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<tbody>
<tr>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>location fixed---</td>
<td>location free-</td>
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<table>
<thead>
<tr>
<th>integrated instruction</th>
<th>distance education</th>
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<tbody>
<tr>
<td>4.</td>
<td>3.</td>
</tr>
<tr>
<td>mediated communication</td>
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**Figure 1.** Modes of instruction in an open learning system.¹

The *traditional mode*, characteristic of schools and most universities, occupies the first quadrant.

¹Figure 1 is based on Farrell's (1990) diagram of the evolution of open learning.
The *itinerant mode*, in the second quadrant, occurs when institutions offer face-to-face extension programs at sites distant from their home campus.

*Distance education*, in the third quadrant, came into being after postal systems provided a reliable exchange of correspondence. Its growth has been linked to advances in communications technology and the increasing demand for educational opportunities by adult learners.

*Integrated instruction*, in the fourth quadrant, emerged as centers were established with a mix of educational resources such as face-to-face advisors or tutors with distance education course packages, group teleconferencing with independent study, closed circuit television instruction at more than one site, computer conferencing at learning centres, and so on.

The numbering of these quadrants does not imply a hierarchy of values; an open learning system may include all forms of instruction in order to meet the spectrum of learners' needs.

2. Definition of Distance Education

Unlike open learning, distance education is not a philosophy of or policy for education but rather a means of education—"a family of transactions between teachers and learners" (Moore, 1989, p. 4). There have been a number of
attempts to define distance education. Major points of variance involve the presence or absence of face-to-face teaching and/or of possibilities for group learning. Holmberg, who has been a leader in the development of the concept of distance education, says:

... while distance study may well be supplemented by face-to-face sessions, only mediated contact, i.e. non-contiguous communication, is taken to be a characteristic of Distance Education per se. (Holmberg, 1989, p. 11)

His definition of distance education below ignores, but does not exclude, the possibility for dialogue among learners:

Distance Education covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of a supporting organization. (Holmberg, 1977, p. 9)

A somewhat different attitude is expressed by Keegan (1980; 1986) in another well-known definition of distance education. He analyzed "generally accepted definitions" of distance education and compiled their common characteristics into six criteria (1980, p. 14). In response to critics, Keegan (1986, pp. 42-52; 115) later made a number of revisions and dropped one criterion—"participation in an industrialized form of education which ... contains the genus of radical separation of distance education from other forms within the educational spectrum" (1980, p. 34).

Keegan's evolving synthesis allows for the complexity of
educator-learner relationships found in distance education and was created in dialogue with other scholars and practitioners in the field, and so has been selected for use in the present study. The simple form of his updated definition follows.

- quasi-permanent separation of teacher and learner throughout the length of the teaching process.
- quasi-permanent separation of a learner from the learning group throughout the length of the learning process.
- participation in a bureaucratized form of educational provision.
- utilization of mechanical or electronic means of communication to carry the content of the course.
- provision of means for two-way communication so that the learner can benefit from or initiate dialogue. (Keegan, 1986, p. 115)

While Holmberg (1989) prefers to think of distance education as entailing only mediated contact between educator and learner, Keegan's (1986) definition allows for some face-to-face and group contact as part of the distance education mode.

It may be helpful to visualize distance education on a continuum with contiguous education. Figure 2, which has face-to-face, group education at one end and mediated, individual education at the other, illustrates that gradations exist within what is commonly called distance education.
face-to-face group ------------ mediated individual

A = traditional classroom instruction
B = traditional correspondence course
C = integrated media course by computer/ audio/ video
D-D = distance education course with summer school
E-E = teleconferenced course at learning centres
F-F = distance education course with telephone tutor

**Figure 2.** Examples of distance education on a continuum between face-to-face group instruction and mediated individual instruction.

Finally, Moore (1989) says "there is distance in all educational relationships, with distance measured by the extent of dialogue between learner and instructor, and the structure of the teaching program" (p. 4).

What we normally refer to as distance education, where the geographic separation between learner and instructor is such that electronic or print communications media have to be employed to transmit the dialogue are those programs that are characterized by greater distance. What we are normally referring to as Distance Education is a subset of all educational programmes, the subset characterized by greater structure, lower dialogue and thus greater transactional distance. (Moore, 1989, p. 4)

Structure, dialogue and transactional distance will be considered further in Chapter IV, "The Educator-Learner Relationship in Distance Education." The next five sections
of this chapter take up and discuss the criteria of Keegan's definition.

A. Separation of Teacher and Learner

There are questions about the nature and quality of education that is possible at a distance. By some definitions, teaching is "a reciprocal act that is impossible in the absence of a learner" (Keegan, 1986, p. 117). The imparting of information is feasible, but the social aspects of education are not experienced in the same way—if at all—as they are in face-to-face education. This fact will come up again in Chapter V in connection with Tinto's (1987) theory of dropout. The separation of teacher and learner is the most distinctive characteristic of distance education and has a pervasive impact on the educator-learner relationship in distance education.

B. Separation of Learner from Learning Group

When distance education students visit a learning centre or attend a summer school or a weekend lab they may meet other learners studying the same course, but most of the time they study on their own. Teleconferencing courses usually involve group learning at dispersed locations. Students may meet face-to-face with those who share the same learning centre and have mediated communication with the educator and other members of the learning group who are geographically distant. In some courses, the use of a computer screen and
"telewriters"—which digitize markings by student or instructor—permit visual as well as voice interaction across the telephone line. Thus, a statistics professor at the University of Calgary could ask a student in High River to complete a formula on the screen and another student in Medicine Hat to use the formula to solve a problem (Shale & Garrison, 1988).

The criterion of quasi-permanent separation of learner from learning group, like the first criterion, raises the issue of the relative independence or dependence of the learner in distance education. This question is central to discussions about the nature of the educator-learner relationship and it will reappear in Chapter IV and Chapter V of the present study.

C. Bureaucratic Form of Educational Provision

"In traditional education a teacher teaches. In distance education an institution teaches" (Keegan, 1980, p. 13). The OUUK is typical of quite a few distance education institutions in its method of using a "course team" in the preparation of learning materials (Mason & Goodenough, 1981, p. 111). There may be several academic subject experts as well as an educational technologist, a staff tutor, a course coordinator, an editor and a BBC producer involved in the development of a course.

At the other end of the spectrum is the "integrated mode" of distance education practiced by University of New England
in Australia (Smith, 1983). UNE enrolls external students and internal students in the same courses. Here, the influence of an educational organization seems to differ little for internal and external students.

D. Content Carried by Mechanical or Electronic Media

The use of technical media reflects a significant focus in distance education on the necessity for objective print-making. There is a difference between the conscious and complex preparations required to record broadcast quality television or make an instructional audiotape and the preparation required to give a lecture. Distance education, with its emphasis on technical media, makes different demands upon both its educators and its learners.

Those practicing distance education tend to be heavily influenced by the impact and requirements of the media they employ. The literature is full of articles describing ways of using new technology. The instant distance education university in Indonesia, which opened its doors to some 60,000 students in 1984 and anticipated an enrollment of 250,000 by 1987 relies on computers to mark every exam. No course may include an assignment or evaluation which cannot be scored by computer. The University of the South Pacific uses satellite communications to reach students scattered over many islands. Distance students must leave their villages on set dates and go to learning centres to participate in electronic seminars (U.S.P., 1983 videotape).
These are but two examples of how the use of technical media has dictated the concept of what kind of education distance education provides.

**E. Means for Dialogue**

The student's needs for two-way and group communication—for course-related dialogue, conversation, seminars, group meetings and socialization—are related.

The standard teaching package, however well structured, cannot provide an individualized learning system for students. It is only the introduction of a human element which can adapt to the almost infinite variety of student needs (Sewart, 1983, p. 56).

Sewart's point of view is rarely contradicted in writings on distance education, but not everyone places as much emphasis as he does on the introduction of the human element.

It is typical of distance education institutes to employ tutors. Tutors usually are not responsible for transmitting the course content since that is contained in the print materials. Their job is to facilitate the students' learning by answering questions, marking assignments and exams, and helping the student adjust to distance education. Tutors may communicate with their students on the telephone, in learning centres, at special summer schools, by letter, by audio-video satellite conference, or through computer networks. In countries like Columbia or Malaysia, village school teachers may act as important process advisors even though these local tutors may not have content expertise.
Yet, some universities, such as the Fernuniversität in Hagen, with limited two-way communication between educators and learners, have not included telephone tutoring or face-to-face instruction in their distance teaching programs, and have not had an integrated student support system (Sewart, 1983, p. 53). And there remain private, proprietary correspondence schools which permit only limited two-way, written communication but who have made "long and valuable contributions to this field of education since the last century" (Keegan, 1983, p. 18).

The previous sections have defined distance education and described its components and some of its contexts. The following section sketches a general overview of distance education scholarly literature. This is to introduce more limited discussions of research and theory that address specific components of distance education.

3. Research in Distance Education

Research in distance education has been described as "amateur, unsystematic and badly designed" (Moore, 1985, p. 36). Moore assessed the research done in distance education for the European Home Study Council. He was very critical of the caliber of work.

We have to admit to only a handful of good projects which produce reliable, generalizable and useful information, a fair amount of work worth giving attention to (but only with great caution because of its weak method), and a
massive volume of amateur, unsystematic and badly designed research producing information of very little general value. (Moore, 1985, p. 36)

Holmberg, whose bibliography of distance education research was first published in 1972, paints a more optimistic picture and argues that distance education could now be considered a discipline (1986b).

By the beginning of the 1980s the previous dearth of research on distance education had been replaced by a wealth of studies. . . . The research activities were and are geographically widely spread and a number of diverse areas are being investigated within the framework of distance education. Some are concerned exclusively with didactics and methodology, some with cognitive psychology and so forth, whereas other pay special attention to sociological topics, and so on. . . . When such diverse studies concentrate on the concerns of distance education and emerge as consequences of a desire to attain expertise in distance education, it is possible to describe these united efforts as the beginnings of a new discipline, that of distance education. (pp. 25-26)

While Holmberg is right that both the quantity and the quality of research on distance education have increased, Moore's criticisms are still, all too often, appropriate: "current research shows weak methodology and fails to relate to previous research and to theoretical frameworks" (1985, p. 38). He complains:

In recent years there has been an enormous increase in so-called institutional research (i.e. a recent project reports the ratio of Open University applicants to population by each county in Great Britain), and vast quantities of descriptive statistics are available on hundreds of thousands of students. However, these data rarely answer any question which is derived from or contributes to any kind of theory. (Moore, 1985, p. 36)
Luckily, some distance education research has been carefully designed with clear connections to theoretical frameworks and previous research, has been reported in detail, and has contributed to an understanding which might be generalizable. For example, Rekkedal, at NKI-skolen, has worked with other Norwegian researchers on valuable studies—including experiments—which have consistently explored questions associated with improvements to distance education teaching. His experiment on turn-around time showed that shortening the time between submission and return of assignments had a positive effect on student persistence. These results were not confirmed by a world-wide study sponsored by the International Council for Distance Education, but that may be in part a consequence of the complexity of the international study and the difficulty it met in data collection. Turn-around time may also vary culturally. More recently, Rekkedal's experiment on the use of the personal tutor/counselor in the system of distance education (Rekkedal, 1985) produced persuasive findings in support of this innovation and a number of practical suggestions. These studies will be discussed in Chapter V.

Efforts have been made to advance practice, theory and understanding in distance education by referring to research from the related fields of adult education, educational psychology, educational technology, higher education and communications (Bååth, 1979; Hough, 1984, pp. 7-23; Thompson, 1984, pp. 286-293; Saba, 1988). Bååth has applied
contemporary teaching models (among them Skinner's behaviourism, Ausubel's cognitivism, Bruner's discovery learning, and Roger's facilitation of learning) to the design of correspondence materials (1979).


One important focus in the literature is on the use of media. Many authors have discussed the advantages of different technologies available to distance education. Bates (1984) provides a valuable analysis of the effectiveness of different technologies for distance education and suggests guidelines for media selection.

The extraordinary variety—of types of distance education institutions, political and social environments in the countries where they are located, and restrictions of cost, educational background (and even employment) on students seeking admittance to them—limits the generalizability of most data.

One interesting change since 1985, however, is that distance education research does appear to be attracting more attention both in the field itself and in adjacent fields. A
number of new journals devoted to research in distance education have appeared in recent years, professional associations are growing, the Commonwealth of Learning has been established, research networks have been formed and international conferences are well-attended. As well, topics in distance education research have been appearing with greater frequency on the agendas of adult education research conferences. As distance education scholarship is published more widely and develops a more comprehensive discourse and theory around itself, Holmberg's (1986b) assertion that it is a separate discipline may seem less strained. The fact that distance education has become an academic teaching subject is also likely to raise research standards.

A theme common to much of the research in the field is the search for an inclusive theory of distance education. Keegan stated it as follows:

A firmly based theory of distance education will be one which can provide the touchstone against which decisions--political, financial, educational, social--when they have to be taken, can be taken with confidence. Such a theoretical basis would replace the ad hoc way of responding to 'crisis' situations which normally characterizes this field of education. (Keegan, 1986, p. 6)

Keegan is here assuming a high level of rationality. Notwithstanding the political dimension of decision-making, such theory would require testing in the wide variety of settings and cultures where distance education is practiced. At present, though distance education has no firmly based inclusive theory, there are a number of what Calvert (1988)
called "mini-theories" in the field, several of which are described below.

**A. An Industrialized Form of Education**

Peters' (1971; 1983) concept of distance education as the most industrialized form of education is mentioned frequently by other writers in distance education, but his major works remain untranslated from the German and so the question must be asked as to how widely his books have been read by Australian, British, American and Canadian researchers and practitioners. The present study draws on a translation of an essay by Peters and on Keegan's description of Peters' work. Peters outlines his argument that distance education is radically different from forms of (pre-industrial) education (Peters, 1983, pp. 95-113).

The separation of educator and learner leads to what he (1983, p. 98) called the rationalization of the teaching process. By rationalization he meant division of labor so that output in quantity and quality of materials is increased and input of time and money reduced.

Peters characterized the educator-learner relationship in distance education as "objectified." By this he meant that it is unlike the familiar relationship between a professor and student in which the instructor is free to respond to individual student needs and to express a subjective point of view in discussions (1983, p. 109). Peters balanced the loss of subjectivity with the advantages he saw in
objectification: it permits reproduction of the teaching process; it allows courses to be manipulated and constantly improved; courses may take place anywhere and at any time; it frees the teaching process from the hierarchical structure of a superior and a subordinate and is thus particularly suitable for the further education of adults (1983, p. 109). The major weakness in Peters' theory of distance education is that his concept of objectification ignores the possibility of significant two-way communication, either mediated or face-to-face.

This is how Keegan (1983, p. 66) summarized the points in Peters' theory:

(i) the attempt to show a historical parallel between the emergence of education at a distance 130 years ago and a growing industrialization of society;
(ii) the choice of elements in industrialization that are said to have parallels in distance education:
   • the importance of the planning phase;
   • success due to scientific planning;
   • normalisation of procedures and normalization of product;
   • objectivization of processes;
   • mechanization introducing functional change;
   • centralization and monopoly leading to elimination of small operations; and
(iii) dependence on the Berlin school of educational philosophy of Paul Heimann and Walter Schultz. (Keegan, 1983, p. 66)

Another criticism of Peters is that not all distance education involves the same degree of industrialization. The possibility of almost simultaneous, two-way communication removes some of the need for making an educational print in advance. Still, Peters' formulations seem justified when
viewed in the context of the way large, centralized distance teaching institutions such as the Fernuniversität, the Open University of the United Kingdom, or British Columbia's Open Learning Agency operate. Peters' analysis may indeed help educators recognize and benefit from the "deep structural changes in academic teaching" (1983, p. 111) which are occurring everywhere in the world today.

B. Didactic Conversation and Empathy

Two-way communication in traditional education is often conversational. Daniel and Marquis (1979) report:

In what is probably the most general theory of human learning to appear to date, Pask holds that all learning is based on conversations. However, these conversations are often internalized as when a solitary and silent student mulls over the 'knowables' in a text he is reading. Clearly in this sense all learning involves interaction (Daniel & Marquis, 1979, p. 29).

Conversation has become a key word in the design of distance education materials, largely as the result of Holmberg's call for "guided didactic conversation." He observed, "Individual learning is seen as occurring partly through . . . internalized conversation. . . partly with the assistance of real communication with the teaching organization" (Holmberg, 1977, p. 95). His theory of didactic conversation states:
If a distance-study course consistently represents a communication process felt to have the character of a conversation, then the students will be more motivated and more successful than if the course studied has an impersonal textbook character. (Holmberg, 1989, p. 18)

By didactic conversation Holmberg means a personal style of written discourse using the first and second person pronouns (I/you; my/your) in which information is presented at a comfortable and readily assimilable density, the student is addressed directly, offered support and encouragement, given explicit advice, invited to exchange views or judgments, and encouraged to take a personal and emotional interest in the subject and its problems (Holmberg, 1983, p. 117).

Holmberg tested this theory "through falsification rather than verification attempts" (1983, p. 119). He used questionnaires, collected opinions, and did one experiment using random assignment and a control group to see if there was either a preference for materials in the style of guided didactic conversation, or higher attainments when students used them rather than standard correspondence materials.

The empirical investigations gave no conclusive evidence. However, the tendency apparent in all the three studies favors the theory although no consistent, statistically significant corroboration has emerged (Holmberg, 1983, p. 119).

Holmberg (1986b) extended his idea of didactic conversation into something he called a "teaching theory"
which will be referred to a number of times in later chapters.

Distance teaching will support student motivation, promote learning pleasure and effectiveness if offered in a way felt to make the study relevant to the individual learner and his/her needs, creating feelings of rapport between the learner and the distance education institution (its tutors, counselors, etc.), facilitating access to course content, engaging the learner in activities, discussions, and decisions, and generally catering for helpful real and simulated communication to and from the learner. (p. 36)

Holmberg (1986b, p. 36) claimed that this theory "has generated eleven testable—and, in fact, partly tested—hypotheses." Since then, he has identified both his teaching theory and didactic conversation theory with an "empathy approach" (Holmberg, 1989, pp. 17-20).

Empathy in Distance Education implies more than understanding conducive to helping students to master difficulties. I submit that in serious study most of us feel a need to share discoveries and intellectual experiences with someone else, to exchange views and through this exchange learn confidently to work with the intellectual matter concerned. This evidently implies a need for dialogue. . . . we must find ways non-contiguously to cater for something functioning in the way that dialogue does. (p. 17)

If we believe that dialogue and human contact generally are at the core of educational endeavor, we may be inclined to regard empathy not only as a desirable but as a necessary characteristic of Distance Education. (p. 19)

Holmberg's "mini-theories" may seem to contradict Peter's concept of industrialized education, but they can also be seen as complementary to it. Holmberg’s belief that “dialogue and human contact generally are at the core of educational
endeavor" is congruent with the underlying assumption of the present study; it also fits well with the model of the educator-learner relationship in distance education developed in Chapter IV. Interestingly, Holmberg's "teaching theory" recalls the words of one of distance education's early leaders. Lighty, writing in 1915 about teaching at a distance, did not use the term "empathy" but he did call for an intimate relationship between educator and learner.

In extramural teaching must be created the method, the technique, the atmosphere which shall give the university a new meaning in democracy. [The extramural teacher must]. . . solve the difficult problems connected with long distance instruction. . . He must be able to do more than correct errors and communicate information. He must put into his instruction his personality, his inspiration, his interpretation, as the painter puts his on the canvas, or as the musician puts his into the composition. . . Thus, the teacher-pupil relation in correspondence study becomes very real, very personal, and indeed very intimate [emphasis added]. (Lighty, 1915/1971, pp. 19-21)

Lighty's request for the development of a more democratic kind of university education connects with Perraton's (1987) proposed second key question for assessing distance education: does it increase social equity?

C. Three Interrelated Systems

Perraton (1987) observed that the development of theory within the field of distance education is further along in the "system" of teaching and learning than it is in the two other "systems"--administration and assessment--within which
he would analyze distance education. Perraton's monograph, "The roles of theory and generalization in the practice of distance education: Three related systems for analyzing distance education," covers many topics. Of interest to the present study are his five theoretical statements about distance education teaching:

- communications media do not differ in their educational effectiveness;
- distance-teaching programmes which use a combination of media are likely to have a higher successful completion rate than those which use a single medium;
- a combination of immediate and delayed feedback can lead to effective learning but there is a significant negative correlation between measures of effective learning and the length of the delay;
- face-to-face tutoring, or an alternative form of simultaneous two-way communication, increases the effectiveness of distance education;
- learning at a distance can be made more effective by the use of presentational devices within the text and by a coherent structure of the subject content. (Perraton, 1987, pp. 9-12)

Perraton generated these theoretical statements by generalizing from specific findings he considered sound in the research literature. They seem congruent with Holmberg's teaching theory and empathy approach and complementary to Peter's theory of industrialized education.

When it comes to assessment—or evaluation of distance education—Perraton makes two contributions. The first relates increased numbers of students, decreased
sophistication of media, and less face-to-face tuition to reduced costs per student (Perraton, 1987, figure 2, p. 24).

The second consists of "two key questions" which he would ask when evaluating any distance education program:

First, does the programme lead to open-minded enquiry and not merely to rote learning and sometimes examination success. . . The second question concerns social equity. . . On the face of it, programmes of distance education which widen educational opportunity would seem to promote equity. . . The question is not easy: by offering an inferior education (if that is what we are doing) to people outside school who might otherwise get none, we are doing something to widen educational opportunity, even if we are not restructuring an educational system in a way which makes it more egalitarian as a whole and may be helping to legitimize a system stratified on class lines. Thus, my final question for a distance teaching programme is to ask whether it is increasing, or has the potential to increase, social equity. (Perraton, 1987, pp. 22-23)

Even though the present study has argued that distance education is not a philosophy, Perraton's theoretical approach insists education is always normative and asks that distance education's values be articulated. He recognizes that the selection of teaching methods and administrative policies in distance education must be driven by "a political or philosophical judgment." His two key questions set the enterprise of distance education in the context of open learning and remind practitioners and scholars that completion rates are a narrow focus when assessing education.
**D. Independence**

There is an ongoing debate in the scholarly literature of distance education as to how much support learners need. On one hand, the adult student is seen as capable and autonomous; on the other hand, the distance education student is often someone who may have limited experience with study and who may be selecting this mode of education as a second choice.

Moore has been an influential advocate on the side of learner autonomy. He drew on research conducted with Wedemeyer in proposing a theoretical construct of independent learning and "telemathic" education (Moore 1972, 1977, 1983). He also identified "transactional distance" as the critical measure in distance education, and defined it as a function of two variables, dialogue and structure. Dialogue referred to "the extent to which, in any educational programme learner and educator are able to respond to each other," and structure was "a measure of an educational programme's responsiveness to learner's individual needs" (1983, p. 157). He categorized types of independent study programs along the dimensions of distance—a super-variable he constructed from his variables of dialogue and structure—and learner autonomy. Chapter IV, "Educator-Learner Relationships in Distance Education" begins with a discussion of Moore's typology and central concepts.

Willén and Bartels (1985) are among those engaged in the debate around learner autonomy. Willén analyzed distance
students' need for support (1981; 1985) and found that means for "overbridging" distance were valued by learners. Garrison and Baynton (1987) suggested that independence was not itself the crucial issue but rather a subset of a variable they called control.

Questions and assertions about the relative independence of the distance education learner occur in several places in the discussion of educator-learner relationships and dropout in the next three chapters of the present study. Keegan's definition of distance education along with the mini-theories of Holmberg, Peters, Perraton and Moore help to form the conceptual framework used in addressing the first research question of the present study, "What characterizes educator-learner relationships in distance education?" Chapter IV will answer that question.

4. Summary

Chapter III extracted background information from the scholarly literature of the field in order to clarify the basic concepts of distance education. It sketched an overview of research in distance education and presented a number of "mini-theories" from the field. This background provides a context for the next chapter's analysis of the educator-learner relationship in distance education.
CHAPTER IV

THE EDUCATOR-LEARNER RELATIONSHIP IN DISTANCE EDUCATION

Chapter IV answers the first research question: "What characterizes educator-learner relationships in distance education?" It begins with a review and synthesis of the educator-learner relationship based on Keegan's definition of distance education and on mini-theories presented in Chapter III. Moore's theory of telemathic teaching and his typology of distance education programs are then outlined and discussed. Saba's diagram of Moore's variable of transactional distance is extended to create a composite diagram of elements in the educator-learner relationship in distance education. Distance education scholarly literature bearing on elements in the diagram of the educator-learner relationship is presented and discussed. After further discussions of the composite diagram, it is proposed as a model for the educator-learner relationship in distance education. The chapter finishes with a review of the results and a summary.
1. Review and Synthesis of Characteristics of the Educator-Learner Relationship in Distance Education

The separation of teacher and learner characterizes distance education. Several effects, included in Keegan's definition of distance education, follow from this separation. Because educator and learner are at a distance, electronic or mechanical media are used to convey and present course content. Special means for two-way interactions must be devised and offered in order to enhance the relevance of the mediated presentation and assist students in learning activities. Not only are educator and learner separated from each other, but the learner is often separated from the group of other learners, further reducing opportunities for dialogue and peer support.

The student may become a consumer of courseware and candidate for certification; the role of the educator is frequently—especially in large scale, centralized systems—assumed by an institution. Peters points out that the teaching institution is able to manufacture instructional products in ways that may be cost effective and which emphasize planning. Industrialization of education means that a bureaucratic institution influences the educator-learner relationship; in particular, the influence of industrialization tends to objectify the course content and reduce personalization. It also tends to equate evaluation
of learning with completion of standardized examinations and assignments.

To counterbalance these tendencies, institutions try to provide opportunities for feedback from students through dialogue, and often employ tutors who may meet with students face-to-face, or talk with them on the telephone, as well as mark their assignments. Institutions, in an attempt to increase social equity and reduce transactional distance, may also permit open access, allow flexibility in pacing of course work, and encourage student influence on course structure, thus increasing the openness of their policies. Recognizing the value of lifelong learning, institutions may act as credit brokers and counsel students in educational planning. Counselling may help students assess their abilities and select personal educational goals, assist students seeking financial aid, or help them improve study skills. Because the student is in an educator-learner relationship with an industrialized educator, the effects of institutional policies may be as influential in the relationship as are the more personal qualities evident in interactions with tutors and counselors.

Independence resulting from the industrialized nature of distance education can characterize educators as well as learners. The individual educator--course writer, instructional designer, television producer, program supervisor--within a centralized distance education institution may never meet a learner studying the course
being prepared. Preparation and production of courseware may be accomplished without feedback from the students who use it. Just as the learner in this relationship may engage with an imaginary or virtual educator through internalized conversations, so educators may only engage with hypothetical learners.

Small scale, decentralized distance education institutions simplify the educator-learner relationship in that the educator who prepares the course material is commonly the tutor who discusses it with the learner. The effects of industrialization, bureaucratic organization, and the policies of the teaching institution, shape the educator-learner relationship. Opportunities for feedback through two-way communications—mediated or face-to-face dialogue—provide support to educators as well as to learners in centralized institutions. Dialogue with the learners it is mandated to serve—needs assessments and community-based research—may guide the institution in program development and course design as well as in policies of access and openness.

Holmberg suggests that empathy is the crucial quality needed in educational relationships. It is thus possible to think of a balance in the educator-learner relationship in distance education: empathy-personalization-support balancing industrialization-objectification-independence.

The terms highlighted in the preceding section emerge from the distance education scholarly literature and provide
a basic framework for the examination of research bearing on the educator-learner relationship in distance education: transactional distance, course structure, mediated presentation, course content, relevance, learning activities, evaluation, counselling, certification, social equity, openness, dialogue, support, independence. The first of these terms—transactional distance—leads to the presentation of Moore's theory of telemathic teaching and his typology of educational programs in distance education. Moore's work is discussed in detail because it provided a theoretical starting point for the present study.

2. Moore's Work

Since the early 1970s Moore has published conceptual analysis and research focused on the quality of distance in distance education. Distance of one sort or another is part of every educator-learner relationship, contiguous or mediated; the separation of educator and learner in distance education exaggerates this characteristic. As stated in Chapter III, Moore developed a theory of "telemathic teaching" to describe the educator-learner relationship in distance education.

Distance, or Telemathic Teaching is a teaching programme in which, because of the physical separatedness [sic] of learners and teachers, the interactions between them are conducted through print, mechanical or electronic devices.
What makes a programme more distant than another, making one programme of instruction more telemathic than another, is a function of two variables in the learner-teacher relationship, which are the extent of dialogue in their communication, and the extent of structure in the teaching programme. (1983a, pp. 79-80)

These two variables, dialogue and structure, produce the variable he calls "transactional distance"—and which he sometime shortens to "distance"—a term introduced in Chapter III. Moore's recognition of the learner-teacher relationship in distance education in the theory of telemathic teaching supports the present study's interest in the educator-learner relationship. His definition of dialogue, which follows, places it at the core of this relationship.

Dialogue describes the extent to which, in any educational programme, learner and educator are able to respond to each other. This is determined by the content or subject-matter which is studied, by the educational philosophy of the educator and learner, and by environmental factors, the most important of which is the medium of communication. (1983b, p. 157)

Moore's operationalization of his second variable, structure, is less clear. He seems to be concerned with responsiveness and personalization of course structure rather than with structure itself.

Structure is a measure of an educational programme's responsiveness to learners' individual needs. It expresses the extent to which educational objectives, teaching strategies, and evaluation methods are prepared for, or can be adapted to, the objectives of the learner. In a highly structured educational programme, the objectives and the methods to be used are determined for the learner, and are inflexible. (1983b, p. 158)
So, a high reading on Moore's variable of structure is not a high measure of responsiveness—which is what he says "structure" measures. Low structure is high responsiveness.

Another way of describing Moore's concern here with personalization and responsiveness would be to call it support. He calls for a dynamic of supportiveness that has to do with course structure and dialogue (even though he is, as indicated in Chapter III, a leading advocate of the independent learner).

In a programme in which there is little structure, and dialogue is easy, interaction between teacher and learner permits very personal and individual learning and teaching. However, among correspondence programmes great variability in distance will be found, with some being more dialogic than others, and others being no more dialogic or unstructured than programmed instruction. (1983b, p. 158)

Here, Moore brings his variables of dialogue and structure together through the vehicle of transactional distance, which is a form of support. The issue of support raises the question of independence. As part of his theory of telemathic teaching, Moore designed a typology of educational programs in distance education on the dimensions of [transactional] distance (dialogue and structure) and learner autonomy. This typology is illustrated in Figure 3. Moore defined autonomy as:

...the extent to which the learner in an educational programme is able to determine the selection of objectives, resources and procedures, and the evaluation design. (1983a, p. 82)
It would seem that autonomy, like distance, thus measures structural responsiveness; Moore's two variables are not discrete.

Moore goes on from his definition of autonomy to discuss instrumental and emotional independence in learners— instrumental, meaning "conducting activities and coping with problems without seeking help," and emotional independence meaning "the absence of needs for reassurance, affection, or approval in particular situations" (1983a, p. 85). Although he describes a complex kind of independence as desirable for the distance learner, Moore operationalized learner autonomy in his typology as one of eight cases, involving different distributions of decision-making power between the educator and the learner over the setting of objectives, the implementation of the study program, and the setting of criteria for evaluation. In Figure 3, "A" means autonomous or learner set and "N" means non-autonomous or teacher set.

A. **Moore's Typology**

Dialogue and structure in the dimension of distance are measured in a more relative way than autonomy is measured. The four categories of distance are +D-S (high dialogue, low structure); +D+S (high dialogue, high structure); -D+S (low dialogue, high structure); and -D-S (low dialogue, low structure).

Moore plotted the dimensions of distance and autonomy as shown in Figure 3:
Figure 3. Moore's typology of educational programs (Moore, 1983a, p. 89)

B. Moore's Contribution

A basic problem with the graphic used to present Moore's typology is the number of its dimensions. He draws it as a cube but a cube has three dimensions and six sides. Moore's typology has two dimensions, although each of those consists of two or three sub-dimensions. It would be cumbersome but more accurate to depict Moore's typology in two dimensions as a wide grid of squares. Recently (1989) he has come to refer to his typology and theory of telemathic teaching as the "two-dimensional theory."

Another problem with this typology was raised earlier and lies in the overlap between Moore's variable of structure and his variable of learner autonomy. These shortcomings limit the utility of his typology as a tool for analysis. However,
several aspects of Moore's work have been valuable to the present study.

1. His focus on educator-learner relationships.
2. His emphasis on dialogue.
3. His definition of transactional distance.
4. His emphasis on learner independence.

C. Control

Two projects that build on Moore's work also influenced the present study. The first is Garrison and Baynton's (1987) and Garrison's (1989) attempt to get beyond a focus on learner independence by looking at control. Many researchers have pointed to problems with the belief in learner autonomy or independence (Bååth, 1984; Willén & Bartels, 1985; Garrison & Baynton, 1987; Burge, 1988). In an article entitled "Beyond independence in distance education: The concept of control," Garrison and Baynton suggest that researchers give up their concern with independence and begin to analyze control. They identified three components of control: philosophical independence, psychological power, and structural support. By this they meant "To be fully in control of the learning process, the student must have the freedom to explore possible learning objectives, the power to handle a learning activity, and the support necessary to complete the educational experience" (p. 9). Control belongs within the area of course content and is embedded in the
communication between student and teacher. Garrison and Baynton conclude:

The most important attribute of distance education is not the independence associated with the non-contiguous nature of the transaction. It is the educational experience itself, the complex interaction between teacher and student which goes beyond simply deciding what is to be learned. The crucial and central concept in distance education is, therefore, control—the product of a series of complex interactions that influence and determine the educational outcome. (p. 14)

Garrison (1989) has taken this further, changing the dimension of "power" to "proficiency"—the ability to learn independently. He insists that control is collaborative and has to do with communication, educator, learner, and content; that control is dependent on both educator and learner though it exists separately from them. What he describes as control seems to be the relationship itself, not the checking of that relationship. Garrison's work here suggests an attempt to understand the dynamics of a responsive relationship which involves learning objectives, learning activities, instructional activities and content.

**D. Saba's Work on Transactional Distance**

Saba (1988, pp. 17-24) is also interested in the dynamics of a responsive relationship between educator and learner. He uses techniques from systems dynamics to expand the concept of transactional distance. His observations and conclusions are based on two years of experimentation with the Meridian DV-1 system of integrated telecommunications. His discussion
of the technical effects of integrated telecommunications (concurrent voice, computer, visual signals) on transactional distance leads to a conceptual analysis of the cybernetic function of dialogue and structure. Saba argues that integrated telecommunications "intensify voice and sight dialogue beyond face-to-face communication" (1988, p. 21) but it is his analysis of how this happens which is of particular interest. His discussion and diagram provide a building block in the present study's construction of a composite diagram representing the educator-learner relationship in distance education.

Integrated systems provide a flexible means for decreasing structure through increased dialogue. They also expedite increased structure so dialogue can be kept to a desirable level. This defines a dynamic relationship between the level of desired dialogue and the level of required structure. This relationship can be displayed as a negative feedback loop in a system dynamics causal loop diagram.

![Diagram](image)

**Figure 4:** Saba's causal loop diagram of transactional distance (Saba, 1988, p. 22).

The diagram depicts the cybernetic relationship between teacher and learner and shows how they can vary and control levels of dialogue and structure in a purposeful instructional setting. (Saba, 1988, p. 22)
Although Saba's research focuses on integrated telecommunication systems, his conceptual analysis of transactional distance would seem to fit educator-learner relationships in other kinds of distance education where there is an opportunity for dialogue around the structural design of a course. More dialogue allows both more structure, and more appropriate structure.

This section has presented and discussed Moore's theoretical work and two conceptual developments that began with his work. The next section diagrams elements in the educator-learner relationship in distance education in an attempt to illustrate their balances. It assumes that causal loop interactions, similar to Saba's, are at work among other elements in the conceptual framework identified in the first section of this chapter.

3. Composite Diagram of the Educator-Learner Relationship in Distance Education

Figure 5 schematizes elements which have been described discursively and produces an image of their integration as a single, but complex, relationship. Such a diagram is especially valuable when thinking about the educator-learner relationship in distance education since its many micro-functions, and associated mini-theories, may obscure the
Figure 5. Composite diagram of the educator-learner relationship in distance education.
basic shape. Obviously, any generalization of a complex set of interactions simplifies reality.

This diagram portrays the educator-learner relationship in distance education as a wheel with four quadrants. Its elements include an axle of dialogue, four spokes of support, and a rim of independence. All the parts of the diagram carry motion; not only does the wheel roll along as a whole, but each of its elements represents an interactive transaction. The axle of dialogue at the centre of the diagram connects via spokes of support with four points—structure, content, evaluation, and access—on the rim of independence. These spokes represent cybernetic relationships (similar to Saba's depiction of transactional distance). The four spokes of support are transactional distance, relevance, counselling, and social equity. Likewise, areas on the rim of independence represent interactions. For example, openness is here shown as an interaction between access and structure. Arrows and the + and - signs on the diagram suggest these dynamics, but a detailed exploration of them is beyond the scope of the present study. For now, the important thing is to understand the basic character of the educator-learner relationship in distance education: that, in itself, is quite complicated.

Specific educator-learner relationships may emphasize different elements in the diagram. For example, highly industrialized distance education may offer only imaginary or virtual dialogue, and so the educator-learner relationship might exist primarily on the rim of independence (access,
openness, structure, mediated presentation, content, learning activities, evaluation and certification).

One half of the wheel, certification and openness, tends to have more connection with the educator as an institution and the learner a participant in an outside community since it deals with public policy and other frame factors affecting the educator-learner relationship. The other half of the wheel, mediated presentation and learning activities, is more connected to the educator and the learner as individuals, although even in this area the educator may be the institution.

The caution which must be associated with this figure is that it is only a conceptual device for organizing information and for thinking about the educator-learner relationship in distance education. The following sections of this chapter present research and scholarship associated with each quadrant of the diagram in order to amplify their meanings. Chapter V will then use this diagram as a screen in analyzing the literature on dropout from distance education.

4. Instruction in Distance Education

The first quadrant of the diagram to be discussed is the part associated with instruction, an area of research concentration in distance education.
The components of instruction in the diagram are
dialogue, as Moore defined it: "the extent to which, in any
educational programme, learner and educator are able to
respond to each other"; structure, defined as Saba modified
Moore: "a measure of an educational programme's
responsiveness to learners' individual needs" (1988, p. 17);
transactional distance, defined by Saba as: "the
cybernetic relationship between teacher and learner which
allows them to vary and control levels of dialogue and
structure in a purposeful instructional setting" (1988, p.
mediated presentation, defined here as the instructional presentation conveyed by mechanical or electronic media; content, defined here as the subject matter presented for learning; relevance, defined here as the cybernetic relationship between educator and learner which allows them to vary and control levels of dialogue and content to achieve cognitive or affective pertinence.

B. The Use of Media to Convey Content

Keegan says that "An essential feature of distance education is that the teaching acts are separated in time and place from the learning acts" (1986, p. 119). Moore, in his description of telemathic teaching (1977, p.15) explained that in distance education the interactive stage of teaching as well as the proactive (preparatory) stage is conducted apart from the learners. Keegan is concerned with the reintegration of the teaching acts and the learning acts (pp. 120-127). He says this can only be accomplished by means of a link. This link will be discussed later in the section on relevance, and also in connection with dropout in Chapter V.

The mediated presentation itself involves both structure and content. Even when educators are preparing simple print-based materials, they often find the structural demands of teaching at a distance rigorous. The way the instruction is organized becomes more apparent and also more rigid when the presentation is set in a reproducible print form than when it is ephemeral and spoken. Course materials that rely on
electronic media presentations—audio, video, computer—usually require the assistance of media specialists for their preparation.

There are some differences between centralized and the decentralized systems of distance education regarding the use of media to convey content. In centralized systems (the OUUK or IGNOU for example) a course team might include a variety of specialists and produce a sophisticated media product. An artist, audio-visual director, page-make-up technician, sound engineer, t.v. camera operator, copyright clearance specialist, copy editor, producer, and educational designer as well as the course writer and the content consultant might work on the mediated presentation. In decentralized systems, such as the UNE in Australia, individual instructors may prepare their course guides with a minimum of technical assistance.

Questions have been asked about the relative pedagogical effectiveness of different media. Keegan (1986, p. 189) reiterates the generalization that "any media is all right if well used." Research has also examined the connection between media and cognitive style and the effect of different media on levels of learning. Some of this work will be mentioned in the section of this chapter that deals with learning. Bååth reports on experimental research to do with computer-assisted distance education. Students in Bååth's experiment did well with an "industrialized" form of teaching—where highly repetitive tutor functions were handed over to a computer.
The outcome of the two field experiments has clear practical implications. Correspondence education with computer-assisted two-way communications off-line, arranged as in these experiments, appears to yield educational effects that are in several respects more favorable than those of traditional correspondence education. (Bååth, 1982, p. 305)

Bååth feels that his research supports Peters' theory of industrialization and objectification of distance education, and, once again, suggests that effective teaching can take many forms.

Bååth's (1982) finding is in keeping with other research that suggests, as Perraton put it in his first and second theoretical assertions:

1. communications media do not differ in their educational effectiveness.

2. distance-teaching programmes which use a combination of media are likely to have a higher successful completion rate than those which use a single medium. (1987, p. 9)

Research by Bates (1982) takes this further, suggesting that combinations of lower cost media (audio cassettes and print and telephone) can do the job without reliance on costly broadcast, video and computer technologies. Keegan (1985, p. 190-191) suggests that print plus telephone should be chosen as the most reasonable and effective media combination. Print, which is rather inflexible and not immediately interactive, can be complimented with the use of the telephone to carry dialogue. Bates' (1982) five-point guideline--accessibility, convenience, academic control, 'human' touch, and availability--for the choice of media
indicates sensible limitations in media selection. For instance, in some countries, telephone is not accessible—is not available in most students' homes—and is therefore a poor choice for distance education. In these circumstances, print, when not combined with the telephone to carry dialogue, becomes a weaker medium, but it may still be the best choice possible.

However, much distance education is not only dependent upon print materials but is also driven by behavioral objectives. This combination worries Perraton (1987), who has a number of things to say about the educational design of print materials in his discussion of theory and generalization in the practice of distance education.

... distance education faces the danger that it will encourage rote learning, will rely on extrinsic rather than intrinsic rewards, and will deprive its students of some of the most valuable parts of the educational process. ... An excessive reliance on extrinsic rewards is not inherent to distance education. But in practice the widespread use of an objectives-led model of course development may lead towards this and towards the dangerous assumption that what is easily assessed is necessarily worth learning. (p. 20)

This concern gives rise to the first of two key questions (reported in Chapter III) Perraton would ask in evaluating any distance education system: "Does the programme lead to open-minded enquiry and not merely to rote learning and sometimes examination success?" (p. 22). It also raises the question of how the teaching acts influence the learning acts.
C. Relevance

Dialogue—face-to-face or mediated—between educator and learner "reintegrates" teaching and learning in distance education. As dialogue increases (assuming an empathetic connection between the educator and the learner), so may the cognitive and affective relevance of the instruction; as the content decreases in relevance, less dialogue about it is likely to occur, unless educator or learner elects to increase dialogue in order to increase the content's relevance. The connection between content and dialogue--relevance--is thus similar to the connection between structure and dialogue--transactional distance.

This interaction could be thought of as collaborative reflection, and it might conceivably follow one of Schön's models of coaching: "joint experimentation," or "hall of mirrors" (Schön, 1987, pp. 212-216). Bááth (1979) analyzed seven contemporary teaching models related to psychological theories of learning or personality to determine what they indicated about possible teaching models for distance education. He found that they all gave a role to two-way communication, although models with stricter control of learning towards fixed goals tended to imply, in distance education, a greater emphasis on the teaching material than on the two-way communication between student and tutor/institution.
In all of these cases it is essential that the correspondence tutor provides individual help. In order to activate a particular student's motivation as efficiently as possible, the tutor should link up with his individual expectations and offer individually adapted support (encouragement, praise, etc.). The tutor should, furthermore, try to find out the student's individual previous knowledge and experiences, in order to be able to work out his individualized guidance and feedback to the student. (Bååth, 1979, p. 113)

Another Swedish researcher, Willén, agrees with Bååth's emphasis on the need for individualized guidance and feedback. In her summary of results from a major study of distance education at Swedish universities, Willén concludes:

The general impression was that distance education had functioned well and that the students were satisfied with their studies. . . .

The greatest problem seems to lie in the feedback aspect, i.e. the need of a better contact between teacher and student when it comes to interpreting, analyzing and discussing the content of the course. . . . The problems arise at completely different points in time, as the student's possibilities of studying are limited by other activities concerning e.g. work and the family. . . . Thus, it is a question of individualization of teaching and we would like to make it clear that this need cannot be met by TV or radio programmes, however excellent they may be (Willén, 1981, p. 251)

Willén's study surveyed educators and learners involved with distance education: 120 teachers and administrators and 797 students. The report also presents a follow-up study of the distance students (N=571) five years after they started.

In reflecting on Willén's conclusion that it is feedback around course content—that cybernetic relationship called relevance in the present study—which is the greatest lack in distance education, it is necessary to realize that the
university courses she assessed employed small-scale, decentralized forms of distance education. These courses originated with the different local departments and were often an external form of a parallel course offered on campus. Students sometimes met with instructors (who were also the course writers) and some also met with other students; over three-quarters of the students called their instructors on the telephone (Willén, 1981, p. 234). Almost half (47%) of the teachers surveyed reported that they had better contact with their distance students than with others, and "the results clearly and unambiguously show that the majority of teachers were quite satisfied with student contact in this form of education" (Willén, 1981, p. 150).

Despite these findings and despite the relatively greater opportunities for personalized contact between educator and learner around content in a decentralized system, Willén makes a strong demand for increased individualization and differentiation in distance education even in the Swedish system.

A systematic network of information has emerged from our evaluation and other studies together with this information all point in the same direction, namely that the weak link in distance education lies in the feedback aspect. The conclusion we can draw from this, is that however good the teaching material may be, some students are bound to fail in their studies unless we can also guarantee personal contact between the distance organization and the student, and that this contact gives students security both in their work and socially. (Willén, 1981, p. 259)
Discussing findings made by Dichanz (1979) about the Fernuniversität, a centralized institution, Willén says:

The analysis made by Dichanz with the help of research and other experiences leads him to draw the conclusion that many research workers in the field of distance education will not admit that: "Individualization and differentiation of the study by media have not been achieved in most cases!". . . For our part, the most important point of Dichanz' argument, is that he underlines that the learner himself has been lost in the jungle of teaching-learning organizations. (Willén, 1981, p. 257)

Of course, just offering the opportunity for two-way interaction or dialogue does not ensure that it will be relevant and supportive of instruction and learning, or even take place. Unfortunately, not all teachers or tutors handle such dialogue effectively. Another area of research, this time from India, has investigated the inconsistency, and pedagogical impact on learners, of tutor's written comments made when marking assignments. Koul (1984b, 1985) argues "a teacher drawn from the face-to-face cultural background . . . has to be purged of his unconscious culturally induced biases and trained to distance teach" (1985, p. 1). Koul's work investigates the interaction of ego, insecurity, lack of training, motivation and bias found in distance teachers on the comments they write, and demonstrates that grades from untrained distance teachers ranged from A to E on the same piece of work. A practical outcome of his study is its clarification of types of comments (pedagogically devastating, negative and hollow versus multiplier, or effective for teaching) and the description of a training
program for distance teachers around comment-writing. It is likely that similar programs might assist educators with spoken as well as written responses to student work. The computer-generated, individualized teaching letters composed of preproduced comments being used at Fernuniversität are another way of helping educators who teach at a distance increase the relevance of their dialogue with learners.

In the present study, relevance refers to the ability to individualize instruction, reintegrate the teaching and learning acts, and offer personalized cognitive and affective support to the learner. Transactional distance, which has come up a number of times already, behaves in a similar fashion. It supports instruction by allowing course structure to respond to dialogue. Because the research associated with transactional distance has been presented, it will not be raised again here.

5. Learning in Distance Education

To date, distance education research seems to have been less interested in investigating learning than it has been in studying teaching. Some research about instruction has implications for learning, and vice versa. The previous discussion of relevance applies to learning as well as to instruction.
The components of the learning quadrant of the composite diagram include: **dialogue** and **relevance** and **content**, each defined in the previous section; **learning activities**, defined as practice, problem-solving and reflection engaged in by the learner, associated with the course content and with personal discovery, demonstration and evaluation of learning; **evaluation**, defined on one side as the assessment of learning, and on the other as assessment of the learner's needs, potential and possibilities; and **counselling**, defined as the cybernetic relationship between educator and learner which allows them to vary and control levels of dialogue and educational, vocational or personal guidance or advice, not directly related to course content, offered to the learner.

Figure 7. The quadrant of learning in the educator-learner relationship in distance education.
B. Learning Activity: Practice, Reflection, Evaluation

How learning takes place in any educational program is something of a mystery. This study found very little research that specifically addressed learning in distance education. The interesting book edited by Marton, Hounsell and Entwistle (1984), *The experience of learning*, reports on research using a phenomenographic approach into such questions as how students learn from reading, essay-writing, and problem-solving. The entire book seems relevant to distance education, especially since some of the subjects in a couple of its chapters were OUUK students. Based on those studies, it can be said that distance education students come to learning activities with a number of orientations (vocational, academic, personal) and a variety of learning styles, but that they are fairly rational in sizing up the requirements of the situation and engaging in an activity— and a level of that activity—which they judge to be appropriate (Laurillard, pp. 124-143; Gibbs, Morgan & Taylor, pp. 165-188). The learning which results may be of different levels as well as of different domains (cognitive, affective, psychomotor).

Kolb (1984, p. 30), writing about learning in general, proposed a now familiar four-stage model of the learning cycle that goes from concrete experience, to observation and reflection, to generalization and abstract conceptualization, to active experimentation and back to concrete experience. Jarvis (1987)—who has had experience with distance education
but does not mention this in his argument—criticizes Kolb's learning cycle and model of learning for being oversimplified, experiential, and consequently limited (pp. 16-24). Jarvis's own (adult education) model of the learning processes arose from his research; in it he proposes nine different paths or responses to a potential learning experience. Some paths are more completely cognitive—do not involve practice experimentation but do involve reasoning and reflecting and evaluating—than Kolb's model.

The value of Jarvis' work here is that the kind of practice or active experimentation involved with learning while researching for and writing an essay does differ from the kind of practice involved with learning new skills in dental assisting by work in a dental office. The first tends to require considerable cognition and reflection, while the second tends to involve some cognition but far more complex psychomotor activity, along with a certain amount of learning in the affective domain because the practice is on other people.

Cognitive reflection, problem-solving and written practice are more common as learning activities for distance education students than are practice of sophisticated psychomotor skills, affective learning, or the active experimentation of "experiential" learning. However, content like dental assisting or nursing has been learned successfully through combinations of mediated instruction and supervised practice. In fact, it is rumored that much Soviet
distance education occurs in the workplace and involves a vast system connecting employment with academic instruction. Indeed, vocational courses in subjects like electronics or even heavy duty mechanics are taught in countries like Norway, England and Canada by distance education, so the need to master psychomotor content in itself does not appear to preclude the use of distance education as a route to learning.

Some research has investigated how, and even how well, students learn from different distance education materials. Danielson, Seiler and Friedrich (1981, pp. 371-381) did an experiment which found no significant interaction between media and cognitive style, but showed that there was a connection between choice of media and level of learning:

Subjects receiving the print treatment scored significantly higher on the rote level questions than they did on the understanding level questions. Subjects receiving the television treatment scored significantly higher on the understanding level questions than on the rote level. It was also found that field dependent subjects differed from field independent subjects for the rote level but not for the understanding level. (Danielson, Seiler & Friedrich, 1981, p. 371)

Marland et al did a limited study of "students' mediating responses" in learning from course materials.

Twenty different types of mental processes were identified, seven of which were used more frequently than others. Furthermore, textual features which activated mental processes were identified using the stimulated-recall technique, and promising suggestions for textual design were gleaned from the data. (Marland et al, 1984, p. 215)
Only four students were observed, but the research suggests that students can learn at deep levels from print materials. This is borne out by studies done in adult education on students' experiences of learning in connection to reading and writing (Marton, Hounsell & Entwistle, 1984).

Some research from adult education helps to provide a picture of the independent learning activities of adults which might illuminate ways in which distance education students manage their learning.

Adult educators have begun to study the learning efforts of adults outside formal settings. While their findings are not directly related to distance education, they support the assumption that adults are and can be independent in their learning efforts.

Adults spend a remarkable amount of time each year at their major efforts to learn. In fact, a typical learning effort requires 100 hours. And the typical adult conducts five of them a year: 500 hours altogether. Some of these learning projects rely on instructors and classes, but over 70% are self-planned and others rely on friends and peer groups. (Tough, 1978, p. 250)

Some distance teaching institutions have collected data about the backgrounds and progress of their students. While it is difficult to generalize from these, the "statistic which is widely reported in relation to institutions engaged in further or higher education" is that "the great majority of adults learning at a distance are in the 20-40 age range and are studying on a part-time basis from their homes" (Sewart, 1983, pp. 166-68). Another typical finding is that
"correspondence students often came from urban areas where traditional educational opportunities were offered" (Rekkedal, 1983a, p. 219). Geographic isolation is thus not the primary reason for the choice of learning by distance education. Students report selecting this mode because of the independence and flexibility it offered (Glatter & Wedell, 1971, pp. 7-9).

Because of their work commitments distance education is the only form of education which provides reasonable openings for them and it is hardly surprising, therefore, that they offer as reasons for choosing it the fact that distance education allows them to plan their own study programme, assess their progress and establish their own pace of work. (Sewart, 1983, p. 166)

C. Relevance

In addition to the research mentioned in the discussion about relevance in the section on instruction, there has been some work done on learning styles and distance education students. These studies tend to focus on the cognitive construct of field dependence and field independence (Danielson, Seiler & Friedrich, 1981, pp. 371-382; Moore, 1983a, pp. 90-93; Thompson, 1984, pp. 286-293).

The research we conducted in Canada and the U.S.A. from 1974 to 1976 investigated the cognitive styles and the attitudes to independent study of students in one programme selected from the High [learner] Autonomy/Low Distance sector of the typology, and in another from the High Distance/Low [learner] Autonomy sector. . . Students in the more Distant form of Independent Study were significantly more field independent than the norm, (.99 level of significance), but the students in the more Autonomous programme were not. . . Thus field
independence might not be used as a predictor of successful participation in autonomous learning, but might be used as a predictor in distance study. (Moore, 1983a, pp. 90-92)

Two different kinds of "independence" seem at opposite ends of the spectrum in how learning occurs in distance education. The independence of autonomy (freedom to organize a learning experience for oneself) does not necessarily coincide with field independence of cognitive style (ability to distinguish a figure from its matrix or ground).

Thompson points out that if field dependent persons are more likely to drop out of distance education programs it might be worth while to provide "adjunctive support systems to such persons" (Thompson, 1984, p. 290). Does this mean that all incoming distance education students should be tested for field independent or field dependent learning style?

O'Neill's (1989) investigation of first year university students' learning experiences with Psychology and English courses at the OLA and at North Island College in British Columbia suggests that some preferred to simply read the text and found additional media a bother and quite unnecessary, while others felt they could understand things far better when they saw and heard them presented on television. These preferences may indicate perceptual learning styles. Cognitive learning style may also affect the way students interact with course material.

Some of the best research done on learning and teaching in distance education is the work of Rekkedal. He, and others
from the Norwegian NKI-skolen, have systematically studied the effects of various innovations in their system of distance education.

Rekkedal (1973, 1983a, 1983b) reports on an experiment done at NKI-Skolen, Norway on the effect turn-around times for assignments had on course completion rates. He randomly assigned students to two groups, one whose assignments were returned immediately and one whose assignments were held back before their return. "The teacher received no information about which of the students belonged to either of the groups, and the students did not even know that they were taking part in an experiment" (p. 217).

We found at the time of data collection, the percentage of completions in the two groups were 91 and 69 respectively. The difference was found to be highly significant statistically. Consequently, we may conclude that quicker handling of the students' assignments seems to result in higher completion rates. (Rekkedal, 1983a, p. 217)

This finding may seem even more dramatic when it is pointed out that the quicker turn-around time was only three days shorter than the longer one, and that both groups received their marked assignments sooner than was the normal situation before the experiment was started (Rekkedal, 1983a, p. 217).

Taylor et al (1986) undertook a large, cross-cultural and multi-institutional study sponsored by the International Council for Distance Education to follow up on Rekkedal's findings. The results were mixed, but were not generally
supportive of a relationship between feedback interval and persistence. It is likely that student expectations play a role in their tolerance of turn-around time. In another of Rekkedal's studies, turn-around time was held to one day for the experimental group. This would be impossible in many countries.

In order to speed up and personalize educator-learner correspondence, the Fernuniversität is now using an "industrialized" innovation in its correspondence which permits individualized commentary to be sent to students by means of computer-generated letters. The ZIFF-Project: Tutor Marked Assignments with the Aid of Computers (Fritsch, 1989; Klute, 1989; Kuffner, 1989) uses error-oriented tutoring to generate a part-personal, part-computerized letter as a way of responding to student assignments.

D. Evaluation of Learning

The present study assumes that quite a variety of learning activities may take place within educator-learner relationships in distance education. All of these would involve both the internalization of content and the evaluation of learning, although that evaluation is frequently informal and carried out by the learner through guided self-evaluation and personal reflection. At points during the educational program, evaluation of learning will be conducted by the educator—perhaps the educator as institution when it comes to final examinations, advanced
placement, and so on, but more frequently the educator as tutor when it comes to marking course assignments, setting and grading midterm tests, making suggestions for review or revision. Koul's (1985) research on tutor comments discussed in the previous section of this chapter can also be connected to the discussion of evaluation of learning.

Graff and Holmberg (1988) found that of the 194 institutions responding to their survey, almost two-thirds have assessments in every course unit, 85% require students to participate in final examinations, and more than half the institutions award course certificates and final marks on the basis of both final examination grades and marks awarded for assignments. Predominant types or formats of assessment items on examinations and assignments were short open-ended questions, short essay on a set subject, and multiple-choice (Graff & Holmberg, 1988, p. 81). This data may not be indicative of the overall picture, but it raises some questions about the perfunctory nature of formal evaluations in distance education, about the proclivity of behavioral objectives leading to the design of easily corrected tests, and about the cognitive level of learning such assessments can evaluate. Evaluation of learning, and evaluation of student potential, needs and possibilities has not been much investigated in distance education research.
E. Counselling

Counselling may guide and advise the learner in a number of ways. Increased dialogue between the learner and the educator offers increased opportunities for evaluation of the learner's abilities, possibilities and needs, and increased opportunity for the counselor to assist the learner with study skills, time-management advice, financial aid or educational planning--while also fostering a progressive socialization to being a distance education learner. More personal guidance--related to self-esteem, family conflicts, fears of failure or success, and so on--may also be valuable, but there must first be a climate of trust established in the counselling dynamic.

An experiment conducted by Rekkedal at NKI-Skolen in Norway looked at the impact of introducing a personal tutor/counselor in the system of distance education (1985). Instead of having a number of different subject tutors and institutional advisers, students in the experimental group were assigned to just one personal tutor who followed them closely during the first three to eleven courses.

The experiment has demonstrated that by introducing the personal tutor/counselor as defined in the experiment, the quality of distance teaching can be considerably improved. This is illustrated by both study perseverance variables and by the attitudes expressed by the students towards aspects of distance study influenced directly by the new tutor role. (Rekkedal, 1985, p. 91)

This was a complex experiment involving not only the personal tutor/counselor but also a general upgrading of NKI-
skolen's usual (good) tutoring/counselling practices for the experimental group, so that what was tested was a system of distance education based on the use of a personal tutor/counselor. The results are persuasive. Essentially, they suggest that more and prompter contacts with one personal tutor/counselor are supportive of persistence in distance education. This is especially interesting because dialogue with one person over a number of courses was more supportive than dialogue with a variety of tutors who are content-experts. Many distance education institutions employ separate tutors for each course, so students normally engage with different people for different subjects.

It is interesting to note that nearly all the 283 subjects were male (264). NKI-skolen offers technical courses and few women enroll. It would be interesting to repeat this experiment with female students. Willén (1981) found that women were more insecure about distance study than were men and it might be expected that women, even more than men, would respond to the opportunity to have a personal tutor/counselor with whom it was possible to develop a sense of security.

Herrmann (1988) employs the processes of socialization and professionalization as conceptual frameworks for his examination of transitions in students' perceptions about their experiences as distance learners. His study suggests that a student's socialization to being a student and a student's professionalization, or socialization to a
vocation, both have strong positive effects on the educator-learner relationship. Herrmann's subjects were all male students enrolled in a several-year professional engineering course in Australia.

This might suggest that counselling to support socialization to the role of being a distance education student, and counselling to encourage professionalization would be useful. Perraton et al report on remarkably high completion rates in African distance education teacher upgrading programmes that involved a good deal of professionalization (1986).

Graff and Holmberg (1988, p. 90) in their study of 197 distance education institutions from around the world, conclude that both "student independence" and a variable which they called "learner friendliness" are positively correlated with success rates. This is one finding of a large mail survey study which had a disappointing response rate (14% initially; 21% overall). It might be taken as support of the concept of a cybernetic relationship between evaluation and dialogue in the area of counselling. Independent students might seek less dialogue with counselors and have more personal resources for assessments of potential, possibilities and needs; less independent students might engage in fuller and more frequent dialogue with counselors and value their advice and evaluations more.

This section of the chapter has looked at the quadrant of the composite diagram that relates to learning. So far, all
the discussion of this diagram has been in the learning and instruction half of the wheel where the educator-learner relationship may be quite personal—an educator and a learner may engage in dialogue concerning course structure, course content, and evaluation. In the next two sections, addressing certification and openness, the educator-learner relationship tends to become less individual. The educator in this second half of the wheel is most often the institution.

6. Certification

The quadrant of the composite diagram representing certification has the components of dialogue, counselling and evaluation defined in the previous sections; plus the components of certification, defined as a formal product of evaluation of learning attesting to the learner's completion of an organized educational program; access, defined as freedom to enroll in and complete educational programs; and social equity, defined as the cybernetic relationship connecting access to education with dialogue between the educator (often, as institution) and the learner (often, as a member of a particular community) about achieving equality of treatment and opportunity in education.
Figure 8. The quadrant of certification in the educator-learner relationship in distance education.

B. Certification: The Degree or the Empowerment?

This quadrant lies in the more public domain of the educator as institution and of the learner as an actor in society. Certification represents the product of the educational experience which the learner may transfer or apply to other situations. Perceptions of the character of the educational institution will affect the status of its certificates. Certification matters to the educator as institution and the learners, but it also concerns individual
educators who feel the responsibility of creating courses that meet recognizable standards.

Another product of distance education is often empowerment. Willén (1981, pp. 125, 191-202) found that more than half her students (56%) felt that distance education had increased their feelings of self-esteem in general. This is an important and transferrable study product, though it is not a matter of certification or credit. In Willén's survey, more women than men reported—in open-ended questions on what distance education had meant to them—that it had enhanced their self-esteem. Indeed, 79% of female students over 45 years of age claimed that the distance education course had been extremely positive in the area of increasing self-esteem.

This sector might also be equated with student motivation for taking a formal educational program since students may focus on the product in their decision to undergo the formal process. In a recent study of 2,300 Fernuniversität students, 85.4% of the men and 82.5% of the women indicated that gaining "higher professional qualification" was an important goal, which placed this in "undisputed first place in the list of reasons for studying at a distance" (von Prümmer, 1990, p. 5).

Analyses of distance education students' motivations for enrolling in courses and programs typically cite vocational, academic and personal goals. In von Prümmer's (1990) survey, most students had professional and work-related reasons for
study, followed by reasons associated with the broadening of their general education. As well, 30.4% of the women and 20.1% of the men wanted to "test whether I am capable of studying at a university" (pp. 3-5). Men and women differed on the most relevant factor in their decision to study at the Fernuniversität. "Enjoyment of opening up new areas of knowledge" was the leading factor for women (84.0%) but not for men (73.4%); "higher professional qualification" was in first place for men, and first overall in the study (p. 5).

At least two studies (Perraton, 1983; Koul, 1984a) have also implied that courses which complete or upgrade degrees have high completion rates, especially when students are assisted by study leave and their new certifications can be expected to improve work situations and bring jobs. This has a practical and reasonable air about it and does not mean that those students had a less valuable educational process because their aim was certification.

Certification and empowerment goals are frequently mixed: students who take a program for work-related reasons also take it for personal interest (Willén, 1981). Lord Perry, writing about the OUUK says:

The first group want to improve career prospects. The second group, a very important group, want to study simply for the sake of study. And the third motive, a very strong one, is the prospect of emancipation. (Perry, 1986, p. 19).

This third motive is something which will come up again later.
Certification has a rather bad name among educators, and for good reason, since it brings to mind degree mills and institutions where the process of education is less important than its product. However, getting transferable credit or gaining a degree or a certificate is clearly important to many distance education learners who view distance education as their only chance to take particular courses and programs. Willén (1981, p. 91) found that even in Sweden with its well-developed system of university and adult education two thirds of the distance learners said they had no possibility beside distance education to study.

C. Evaluation, Counselling and Access

Evaluation as an assessment of learning, but also evaluation of the learner's needs, potential and possibilities, is an element of certification. Counselling offers guidance to learners when they are designing an educational plan. O'Donnell and Daniel (1979) point out that the need "to match the learning opportunities offered by different institutions with the plans of individual students" (p. 7) can be a missing link in distance education. This is a part of the educator-learner relationship which has received less emphasis than the areas of instruction and learning. What they call "student development" is a process of evaluation and counselling which parallels and interlinks with the process they call "learning resource development."
To date distance education has concentrated largely on the development of learning materials and the provision of supporting linkages between the materials and the student. Further success depends on promoting the development of students' ability to plan their lives, careers and education, set realistic goals and study effectively. It is wrong to assume adult students already have these skills. Responding to student development needs will encourage institutions to become educational brokers in providing a range of services: information, advice, referral and advocacy. (O'Donnell & Daniel, 1979, p. 1)

Learning may be accomplished through distance education, and degrees may be won. Many studies over the past fifty or sixty years have shown that students in correspondence courses perform as well on exams as do intramural students. In fact, there is evidence to support Harper's early prediction that correspondence students would "know more of the subject treated in those lessons and know it better" (Harper, 1971, p. 13). Now the challenge is to make the more industrialized educator-learner relationship of distance education facilitate appropriate educational placement and planning and help learners accomplish their goals.

The kind of access learners have to an institution has an impact on what kinds of educator-learner relationships are possible. However, limiting access by setting higher prerequisites does not necessarily reduce the problem of individualizing the educator-learner relationship. Students at the Fernuniversität must pass the same entrance examination as students at other German universities, and the only certification offered is at the level of a master's
degree. Despite this, the Fernuniversität has thousands of students and is noted for its industrialized approach to distance education. As numbers of students increase at other institutions through greater and more open access, techniques of evaluation may become more impersonal and perfunctory. The Open Learning Institute of Hong Kong distributed its first entrance application forms through financial institutions. Lines formed outside banks twelve hours before the forms were available. Thousands were distributed within a few days. It is difficult to provide adequate counselling in such circumstances. Perhaps this lack of counselling may lead to unmet expectations, poor choices of courses, a high rate of dropout, and a fair amount of disappointment.

An area of counselling associated with certification is guidance for learners about what goals they are likely to accomplish through distance study. Recent research from the Fernuniversität suggests that professional and work-related motives for study are less often realized than general knowledge and other motives (von Prümmer, 1990, pp. 4-6).

By far the most predominant of the personal study goals which motivate Fernuniversität students, are directly related to their wish to improve their assets in the labor market. At the same time, these are the goals least often realized. The question remains open whether the Fernuniversität should do more to discourage students with such apparently unrealistic expectations or whether it should do more to meet these expectations and help students realize these goals. (von Prümmer, 1990, p. 6)

The last sentence illustrates how dialogue in the area of certification can move through a counselling process and
evaluation (discourage students with unrealistic goals), but it can also move through a needs assessment based on a concept of social equity into decisions by the educational institution that increase access to the kind of education desired by learners.

An interesting development pertaining to evaluation and counselling in this quadrant is the concept of a distance education institution becoming a credit broker, or establishing a credit bank. The Open University of British Columbia (OLA) has embarked on such a role. In order to assess a student's certifiable educational credit, the OLA offers a course that the learner works through with the assistance of a counselor. Students may fulfill requirements for an undergraduate degree from the OLA with a patchwork of credits earned at a variety of institutions over an indefinite period of time, as well as by taking distance education courses offered by OLA.

Certification, then, involves an interaction between access and evaluation, both the learner's evaluation of what value a program may be, and the institution's evaluation of a learner's preparation and accomplishment. A third kind of evaluation—the public's and the learners'—of the status of the educator (the distance teaching institution) also bears on this. Dodds, Lawrence, and Guiton conducted a correlational study based on questionnaires completed by a group of fifty-three external university students and a comparison group of fifty-one on-campus. It supports the idea
that distance education is second best—at least in the eyes of students at Australia's Murdoch University.

Advantages of external study were self-reliance and finances, and disadvantages were access to the library and academics' demands. Students expressed preference for studying on-campus or by the combination of campus and external courses [rather than totally by external courses]. (Dodds, Lawrence, & Guiton, 1984, 174-185).

Degrees earned by distance education may have less cachet than those won through traditional on-campus study. When both distance and on-campus students can enroll in the same institution—often in the same courses—the mode by which a student took courses may go without note. Distance teaching universities such as the OU in British Columbia arrange for articulation of their courses with other institutions, but employers and the general public may associate distance education with "mail-order degrees," or they may be sceptical of educational innovations and so undervalue the certifications won through distance study.

In the present study, access and social equity refer not to their broader meanings but only to the way access and social equity work as frame factors, especially in the public domain, for the educator-learner relationship in distance education. Access to educational opportunities, while it may seem simple, is complex; social equity, even when limited to education, involves a vast range of human interactions. The cybernetic connection between dialogue and access (i.e.,
social equity) functions in the quadrant of certification and it also plays an important role in openness.

The next section addresses the fourth and final quadrant of the educator-learner relationship in distance education: openness.

7. Openness

Open learning was defined and discussed in Chapter III of this study; openness refers to the practical and philosophical goals of open learning as these relate to access and course structure in distance education. The components of this quadrant are: access, social equity, dialogue, transactional distance, and structure. These were defined in earlier sections of this chapter.

This final quadrant of the composite diagram of the educator-learner relationship in distance education shows how open and flexible an educator and an educational institution are to individual adult learners and to the need for lifelong learning. Openness also refers to the extent to which learners are engaged in shaping the structure of instruction and in seeking access to education which meets their needs. Needs assessments and information about the impact of instructional and institutional structures on learners might help educators individually and as institutions work with the communities distance education is mandated to serve in the
design and implementation of programs and courses. Openness is an area of challenge in the educator-learner relationship.

A. Diagram

![Diagram showing the quadrant of openness in the educator-learner relationship in distance education.]

**Figure 9.** The quadrant of openness in the educator-learner relationship in distance education.

**B. Social Equity and Access to Distance Education**

Social equity and access are frame factors in the educator-learner relationship in distance education. Social equity represents the fairness of opportunities for education offered by means of distance education. While social equity
is discussed in this section under openness, like access, it also functions in certification.

Who are distance education's students? Does distance education serve a different group of people than face-to-face or contiguous education? Willén (1981, p. 249) reports from Sweden that "Our data shows that distance students at the university do not constitute any special group compared to other adult students at the university." Keegan (1986) thinks there are some differences.

In general distance students tend to be gainfully employed, have less prior education, are older and live comparatively far away from the nearest place offering the same course in a different form. (p. 171)

Offering access to educationally disadvantaged groups or to the working class may be part of a distance teaching institution's mandate. These goals can be difficult to meet. There is a question about how much the OUUK has democratized education.

There was a great demand for degree-level studies among working adults. . . . While its early years saw some increase in the proportions of students with low educational qualifications and in the manual trades, little progress has been made since then. Also those students from 'disadvantaged' groups who were attracted have found it more difficult to cope with the demands of OU study. (McIntosh, Woodley & Morrison, 1983, p. 193)

Even more negative are the results of a comparison of the costs and time involved in gaining a first degree from the OUUK with similar expenditures for part-time study in local
colleges offering face-to-face instruction. Overell (1984, p. 20) reports:

All local courses are significantly cheaper, and estimates of total costs for the whole degree suggest that most local courses are less than half the cost of an Open University honours degree. In the swiftness and convenience of their admissions procedures these other courses also score convincingly over the Open University. (Overell, 1984, p. 20)

Other distance teaching institutes have fewer expenses and delays associated with them, but it is questionable just how successful any are at truly democratizing education. Politics, class, race, gender, age, employment status, wealth—all these factors may affect social equity when it comes to the democratization of education. What might be termed the misuse or exploitation of distance education has occurred in the past and will occur again.

It has been claimed, for example, that one of the advantages of the Free University of Iran, in the eyes of the Shah's regime which established it, was that distance education allowed students to get degrees without gathering together, when they might pose a threat. (Perraton, 1987, p. 22)

Statistics vary on the male to female ratio. Quite a few distance education institutions are predominantly male (NKI-skolen, Fernuniversität) while others have a majority of women students (OLA, Athabasca).

Obviously, access to one form of education is not in itself all that matters when it comes to social equity or openness. This is why social equity is depicted as a
cybernetic relationship between dialogue and access, similar to that of transactional distance.

Openness involves not only increased access, but increased flexibility in program and course design which supports a wider variety of learners. Wedemeyer links the democratization of education through distance education to provision for individual differences.

The learners at the back door have been waiting a long time for improved opportunity and access, better counselling and guidance, teaching that welcomes a diversity of learning styles, courses and resources that let learners proceed at their own pace, recognition of the importance of relevance in learning to the lives and needs of learners. They now demand and expect equitable recognition of their achievement, knowledge, and skills—however, wherever, whenever learned. ... If non-traditional learning systems can free learners to pursue learning as a natural activity, lifelong as needed, the potential of non-traditional learning will be realized. (Wedemeyer, 1981, p. 78)

This vision of the learner at the back door, when read through, touches on all aspects of the present study's diagram of the educator-learner relationship in distance education. Wedemeyer's call is included here because its overall concern seems to be with access and social equity.

**C. Openness: From Structure to Access**

Lewis (1986, p. 6) observed that it is "possible to see a learner--in a scheme of whatever length--as having a career." He claims that "open learning" contrasts with what might be called "closed learning," and suggests any "learning scheme" may be located on a continuum between open and closed
learning. His elaborate table illustrates the structural end of openness in distance education by enumerating questions a learner and educator might ask about the structure of the educational experience. Lewis designates open and closed solutions to these questions which have to do with issues around transactional distance, instruction and learning but they also have to do with issues around access to courses. Openness can be seen as an area of educational policy; like certification, it exists in the public domain, but it has an immediate effect on the character of the educator-learner relationship.

Table 1.

The open-closed learning continuum (Lewis, 1986, pp. 7-8).

<table>
<thead>
<tr>
<th>Question:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed&lt;--------------------------&gt; Open</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who?</th>
<th>Scheme open to select</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scheme open to all groups only</td>
</tr>
<tr>
<td></td>
<td>Set entry requirements, eg traditional exam success</td>
</tr>
<tr>
<td></td>
<td>Scheme not marketed</td>
</tr>
<tr>
<td></td>
<td>Self-assessment and diagnostic facilities</td>
</tr>
<tr>
<td></td>
<td>Extensive publicity, regularly updated information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Why?</th>
<th>Choice made by others, eg tutor, employer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learner choice</td>
</tr>
<tr>
<td></td>
<td>No counselling or guidance</td>
</tr>
<tr>
<td></td>
<td>Pre-entry counselling</td>
</tr>
<tr>
<td><strong>What?</strong></td>
<td>Entire syllabus set out in advance, eg by validating body; no choice possible within it</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Learner formulates own objectives and syllabus body; no choice possible within it</td>
</tr>
<tr>
<td></td>
<td>Limited to materials the tutor has produced</td>
</tr>
<tr>
<td></td>
<td>Uses wide range of materials drawn from many sources</td>
</tr>
<tr>
<td></td>
<td>Whole course must be taken</td>
</tr>
<tr>
<td></td>
<td>Content tailored to need: individual learner can take different modules</td>
</tr>
<tr>
<td></td>
<td>No guidance on selection of content</td>
</tr>
<tr>
<td></td>
<td>Guidance on selection of content</td>
</tr>
<tr>
<td></td>
<td>Knowledge, facts, &quot;academic&quot;</td>
</tr>
<tr>
<td></td>
<td>Experience, practice, feeling, attitude</td>
</tr>
<tr>
<td></td>
<td>No recognition of past experience</td>
</tr>
<tr>
<td></td>
<td>Credit given for past experience</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>How?</strong></th>
<th>Only one method/style provided for; little variation in learner activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choice of learning methods/styles, varied activities</td>
</tr>
<tr>
<td></td>
<td>One route only through material</td>
</tr>
<tr>
<td></td>
<td>Choice of routes through material</td>
</tr>
<tr>
<td></td>
<td>Package in one medium only</td>
</tr>
<tr>
<td></td>
<td>Package used variety of media</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Where?</strong></th>
<th>One place only (eg. at work)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learner chooses place (eg. home, work, while travelling)</td>
</tr>
<tr>
<td></td>
<td>Regular fixed attendance required</td>
</tr>
<tr>
<td></td>
<td>Learner can attend, or not, as desired</td>
</tr>
<tr>
<td></td>
<td>Practical work requires fixed attendance</td>
</tr>
<tr>
<td></td>
<td>Practical work offered through kits and/or drop-in access and/or place of work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>When?</strong></th>
<th>Fixed starting date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start any time</td>
</tr>
<tr>
<td></td>
<td>Learner paced by a fixed schedule</td>
</tr>
<tr>
<td></td>
<td>Learner decides pace of work</td>
</tr>
<tr>
<td></td>
<td>Fixed ending</td>
</tr>
<tr>
<td></td>
<td>Ends at any time</td>
</tr>
<tr>
<td>How is learner doing?</td>
<td>Variety of assessment methods; learner choice of assessment methods; learner constructs method of assessment</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Normative assessment</td>
</tr>
<tr>
<td></td>
<td>Criteria/competency based assessment</td>
</tr>
<tr>
<td></td>
<td>No feedback on performance</td>
</tr>
<tr>
<td></td>
<td>Frequent, full, on-going feedback on performance, available as desired</td>
</tr>
<tr>
<td></td>
<td>Assessment dates</td>
</tr>
<tr>
<td></td>
<td>Learner decides when to be assessed</td>
</tr>
<tr>
<td></td>
<td>Assessment available only for whole course</td>
</tr>
<tr>
<td></td>
<td>Assessment available for each module</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who can help the learner?</th>
<th>Variety of possible kinds of support (eg advice, guidance, counselling)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Only professional supporters (eg professional supporters; informal as well as formal support encouraged (eg mentor family, friends))</td>
</tr>
<tr>
<td></td>
<td>Support available only in one place, eg training centre</td>
</tr>
<tr>
<td></td>
<td>Support available in many places</td>
</tr>
<tr>
<td></td>
<td>Support available in a variety of modes, eg letter, telephone face-to-face</td>
</tr>
</tbody>
</table>

| What does it lead to?    | Various possible destinations                                           |
An intriguing—though speculative—work is Ljosa and Sandvold's (1983, pp. 291-315) "The student's freedom of choice within the didactical structure of a correspondence course." Their study grew out of a new Adult Education Act in Norway which requires that, "in order to fulfill the conditions for public support," an institution is "required to have an educational practice which secures the influence of the course participants, both as regards the form and the contents of the course" (Ljosa and Sandvold, 1983, p. 291). It compares and reflects upon ways in which correspondence materials might be opened up, loosened up. It diagrams forms of student progress through interactions with course material, supplemental materials and local milieu. Thus, while accepting the industrialization of distance education and the objectification of its content, Ljosa and Sandvold have attempted to build a remarkable amount of flexibility into the materials so that each student might personalize the course.

Rumble (1989) warns about a "closure in so-called 'open learning systems'" (p. 33). He sees British distance teaching institutions becoming oriented toward the manufacturing of instructional materials on contract and less oriented towards being a service organization providing student support.

How much easier to provide materials to corporate clients who are then left with the responsibility for and the cost of supporting learners... a corporate approach to training will tend to be more structured and less dialogic programmes and courses, and a more restricted choice of course... if 'open
learning systems' in general begin to concentrate on corporate clients, then increasingly major sections of the population will find opportunities for education and training closed to them. (1989, p. 34)

This closure is thus a matter of institutional policy that affects access but also affects the course structure and the transactional distance associated with that structure.

Visionary writers such as Lighty (1915 in Mackenzie & Christenson, 1971) and Wedemeyer (1981) share an inspirational faith in what has been described as the democratic virtue of open learning. Seventy-five years ago, Lighty wrote about "educational rights" and saw what he then called correspondence education offering the opportunity for learners to break down the possessive seclusion of "the aristocracy of intellectuals" (1971, p. 24).

Here in America, particularly in this vast mid-continental area, amid the great horizontal lines of the prairie which is the greatest runway in the world for the winds, and for ideas, may we not through this, the most wonderful system of teaching yet assayed by man, nurture the openness of mind and breadth of soul which will produce the greatest race the world shall ever know. (Lighty, 1915/1971, p. 22)

While the dream and the reality may be disparate, recent research has given us some guidance in the design of distance education. It may never be "the most wonderful system of teaching yet assayed by man," but it may offer an adequate and, in some cases, highly suitable opportunity for education.

Now that each quadrant of the composite diagram of the educator-learner relationship in distance education has been
discussed, it is time to take a look at the whole picture, especially with regard to the debate about independence and support.


The overall design of the diagram is that of a wheel with an axle and spokes. The experiences on the rim of the wheel are those an independent learner might have when taking a distance education course in its most industrialized form. On the rim, the educator-learner relationship can be quite distant and impersonal. There are educators as well as learners in distance education who, for whatever reason—policies, politics, the pressure of industrialization, preference, lack of information—exist on this rim of independence in their relationships with learners.

The axle is dialogue—two-way communication between educator and learner. Connecting this axle to the rim are spokes of support: transactional distance, relevance, counselling and social equity.

Instead of seeing dialogue and independence as an either-or choice, it is useful to think of them as both part of the educator-learner relationship in distance education.

The following sections review scholarship associated with the three elements of this diagram.
A. The Rim of Independence

Keegan (1986) identified student independence as one of the three areas in distance education where theory is developing. He reports that the German distance educator, Delling (1975), takes what is probably the most extreme position on this issue because of his "hesitation to label distance education a teaching process" (Keegan, 1986, p. 59) since supervision and support for student learning is carried out by a helping organization. Delling distinguishes the distance education student, who participates in an "artificial" dialogue with opportunities for feedback and two-way communication, from learners who learn from monologues (p. 60). Despite the "artificial" dialogue, Delling's student studying at a distance could become so independent that it would be necessary to ask if she or he were still involved in education.

Holmberg (1986b) has several things to say on this topic. He points out that distance education is "an exercise in independence" with regard to the "planning, timing, and carrying out of individual study" (p. 29). The possibility that the learner can exercise independence with regard to what as well as how she or he will study does exist, but Holmberg suggests that students who "want to pass an examination or acquire a degree or professional competence as quickly as possible are usually willing to accept and follow rather detailed plans leading them to their goal" (p. 30). On
the other hand, some students "who are intrinsically motivated and study to satisfy intellectual and scholarly interest are no doubt less inclined to follow paths prescribed by others" (p. 30). This situation poses a problem that Holmberg refers to as "respect of students' integrity vs. student support" (p. 30). He feels that those on the side of student support in this quandary take it as their social duty to spontaneously support students—to interfere in order to prevent failure and to promote success.

B. The Spokes of Support

Willén & Bartels (1985) compared distance education students in contrasting systems in Sweden and Germany on the question of what kind of support was most important to them. Their findings, discussed earlier, dispute Moore's belief in the independent learner.

Most of the distance students need a well-functioning feedback system, which can involve a lot of different components, but personal contact with the teacher/s and the written material seem to be the most important components. (p. 18)

Bååth (1984) based his argument for support on a handful of elements from different educational theories. These boil down to the need to individualize tuition, make connections with the learner's previous experience, get an idea of the learner's comprehension, and establish a good personal relationship with the learner.
C. The Axle of Dialogue

There are a number of factors mentioned in the literature that seem part of the way dialogue needs to be described. These factors include questions about whether the dialogue is "real" or "artificial": whether the educator and learner interact personally, or only in the imagination of the learner (assisted by teaching materials designed to create "guided didactic conversation" and/or by visual images of the educator for the learner). There are questions about the timing of the dialogue—whether it is contiguous or attenuated, and if delayed, what time lapse is involved in the feedback loop? If the dialogue is contiguous, is it face-to-face conversation or mediated conversation? There are also many questions about the content of the dialogue: is the dialogue informal as well as formal—does it contribute to social integration as well as intellectual integration? Is it supportive and empathetic or mainly judgmental? We need to know under what circumstances dialogue is initiated, by whom, and for what purposes. It may be that some learners feel more supported when they have one personal tutor with whom all aspects of their educational program may be discussed; on the other hand, some learners may feel more in control of their learning activities when they engage with relative anonymity in dialogues with an institutional educator consisting of a number of advisors, counselors and tutors. There is a lot we do not know about the character, timing and content of educator-learner dialogues.
The next section reviews the major results presented in this chapter in answer to the first research question: What characterizes educator-learner relationships in distance education?

9. Answering the First Research Question: Review of Results

The most important result of the present study is the development of a model of the educator-learner relationship in distance education (see Figure 5, and the discussion pp. 67-70 and 113-117).

The crucial detail of this model is that it makes dialogue between educator and learner its central element. This reflects Holmberg's theory of didactic conversation and his teaching (empathy) theory (see pp. 47-50) as well as Moore's theory of telemathic teaching (see pp. 59-64) and it is supported by Bååth's and Willén's research (see pp. 76-79).

Moore (1983) focused his theoretical analysis on variations in the educator-learner relationship and selected dialogue as a measure of distance in an educational program (see pp. 59-64). His work provided a starting point for the present analysis. The theoretical framework drawn from the literature on distance education (reviewed and synthesized pp. 56-59) suggested a more complex relationship than the
interaction of distance (dialogue and structure) with learner autonomy which Moore portrayed in his typology of educational programs (see p. 63). Saba's (1988) causal loop diagram of transactional distance--Moore's term for the responsive dialogue between educator and learner about the structure of a course--provided a practical building block for the model (see pp. 65-67). Saba's depiction of the cybernetic connection between dialogue and course structure suggested ways to depict similar functions: dialogue and course content (relevance--see pp. 76-80 and 86-89), dialogue and evaluation (counselling--see pp. 91-94 and 98-103), dialogue and access (social equity--see pp. 104-107). Likewise, interactions occur on the rim of the model between content and structure, (mediated presentation--see pp. 72-75); content and evaluation, (learning activities--see pp. 82-86); access and evaluation, (certification--see pp. 94-98); access and structure, (openness--see pp. 107-113). Different educator-learner relationships in distance education may be more developed in some areas of the model than in others; for example, one relationship might involve minimal real dialogue and be relatively unopen, while another might involve frequent real dialogue but offer relatively little in the way of mediated presentation of course content.

A characteristic of this model is that it consists of internally moving parts held in a pattern of connections, influencing one another through their transactions. It assumes that the educator-learner relationship is a "live"
system, in motion as a whole. This interactive quality is pointed to by Saba's causal loop diagram of transactional distance (see pp. 65-67) and it will also be found in Tinto's model of institutional departure discussed in Chapter V.

The rim of independence the model rolls upon consists of access, openness, structure, mediated presentation, content, learning activities, evaluation, and certification. The fact that the largest part of the educator-learner relationship in distance education happens on this rim of independence is consistent with Peters' theory of an industrialized form of education (see pp. 45-47). The rim is supported by the spokes of social equity, transactional distance, relevance, and counselling which transfer the effects of dialogue from the axle to the rim, and carry concerns originating on the rim into the dialogue. This is consistent with theorizing and research by a considerable number of people, discussed in Chapters III and IV, such as Holmberg, Perraton, Bååth, Willén, Moore. It will also be congruent with Tinto's view of educational communities (see Chapter V).

A wheel rolls; as the rim rotates, so does the axle—as the educator-learner relationship moves through areas of concern, the dialogue will increase if the spokes of support are in place. Likewise, dialogue between educator and learner can transfer the axle's motion through the spokes to drive the rim. Thus, rather than asking distance education to choose between educator-learner independence and individualized support through educator-learner dialogue,
this model shows how independence and support are both part of the educator-learner relationship in distance education.

Of course, any model of human relationships is a simplification of reality which will inevitably fail to represent the whole truth. A model can be useful as a conceptual device when thinking about how relationships work, and when exploring the extent to which they do actually work as portrayed. It can be reductive if mistaken for a representation of the subtle variety of real life. In the present study, an attempt has been made to propose a strong and reasonable facsimile of the educator-learner relationship in distance education which might promote better understanding of the characteristics of that relationship as they now emerge from the literature.

Thus, in answer to the first research question, the educator-learner relationship in distance education is characterized as a wheel centred on an axle of real or virtual dialogue; it is supported via dialogue through the spokes of social equity, transactional distance, relevance, and counselling; its greatest mass is carried on the rim of independence in the areas of access, openness, structure, mediated presentation, content, learning activities, evaluation and certification.
Chapter IV has answered the first research question: What characterizes educator-learner relationships in distance education? It has done this by first reviewing characteristics emerging from the definition and discussion of distance education in Chapter III and then looking at Moore's work on the educator-learner relationship in his theory of telemathic teaching and his typology of distance education programs. Following Moore, Saba's further analysis of transactional distance suggested a way to diagram other components of the educator-learner relationship. A composite diagram was then presented. Much of Chapter IV was devoted to examining each quadrant of the diagram in the light of research from the field. The chapter closed with an overview of the composite diagram—its rim of independence, spokes of support, and axle of dialogue—and the proposal that it be considered a model of the educator-learner relationship in distance education. The results which answer the first research question were reviewed.

The next stage of the study, Chapter V, will address the second research question: "What characteristics of the educator-learner relationship in distance education are associated with dropout?"
CHAPTER V

DROPOUT STUDIES AND THE EDUCATOR-LEARNER RELATIONSHIP IN DISTANCE EDUCATION

Chapter V answers the second research question: "What characteristics of the educator-learner relationship in distance education are associated with dropout?" It provides theoretical background for understanding dropout from distance education, and then screens distance education dropout literature through the model of the educator-learner relationship developed in Chapter IV.

The chapter begins with a review of dropout from distance education in general. It describes the difficulty of defining dropout in distance education and the range of dropout rates. The second research question's focus on dropout associated with characteristics of the educator-learner relationship is discussed. These are factors which are potentially alterable by the distance teaching institution and so they warrant investigation. The multi-causal nature of dropout is identified.

Tinto's theoretical work on dropout from higher education is described and its connections with the present study are highlighted. This leads to a theoretical framework about
dropout that relates to the model of educator-learner relationships in distance education.

The next part of the chapter outlines limitations of the research literature on dropout in distance education. Then research findings are filtered through the model of the educator-learner relationship in distance education. Much of Chapter V consists of tables presenting these data. The results are discussed in connection with the sources and quality of the data, the elements of the model, and the predictions of the theoretical framework.

The chapter concludes with an overview of dropout data associated with the axle of dialogue, the spokes of support, and the rim of independence in the model of educator-learner relationships in distance education, and it ends with a summary.

1. Dropout from Distance Education in General

Chapter IV developed a model of the educator-learner relationship in distance education. Much of Chapter V is devoted to using that model in an effort to answer the second research question "What characteristics of the educator-learner relationship in distance education are associated with dropout?" However, before going on to that task, it is necessary to describe the larger picture of dropout from distance education.
This part of the chapter provides background about dropout from distance education in general to prepare for the narrower focus in the next and subsequent parts of the chapter which look at dropout that can be associated with the educator-learner relationship in distance education. The discussion begins with a description of difficulties in defining distance education dropout.

A. Difficulties with Defining Dropout in Distance Education

Confusion around the definition of dropout in the distance education literature has centred around problems of determining when and where dropout has occurred. A related question has to do with what kind of student withdrawal is being measured.

Woodley and Parlett (1983, pp. 2-3) were not the first, nor will they be the last, to observe that the term "dropout" means different things to different people. Bartels and Willén (1985, p. 1) add that "the term means different things in different systems of distance education, because distance education is determined by the framework of the national educational system." In Canada, distance education is under the jurisdiction of provincial educational systems and its procedures and measures are not standardized; thus, the meaning of dropout varies from institution to institution within a province, as well as nationally and internationally.
Bartels and Willén (1985, p. 1) list factors which distinguish DTUs (distance teaching universities) from one another and make comparison of dropout rates difficult: DTUs have different entrance qualifications, compete with different options for tertiary education, encounter different educational backgrounds in their students, employ different institutional teaching methods, and have established degrees that are neither equal in level nor in comparative value. They list eighteen questions which they believe need to be answered if dropout rates between institutions are to be compared. These include concerns about: level of education, subjects offered, contents of subjects, method of teaching, course system or degree system, courses of studies available, kind of degree, goals of students, admission policy, entrance qualifications, enrollment policy, how the DTU counts the number of its students, types of students, if there are a limited number of places available, fees paid, if study is paced or if the DTU has a flexible deadline system, what kind of exam system exists, and what kind of student support system exists (Bartels & Willén, 1985, pp. 8-9).

Bartels and Willén and Woodley and Parlett write about university level distance education. There are also ABE and technical and vocational programs. Some research is based on these populations (Rekkedal, 1985, for example) but little work has investigated the extent to which university students and technical or vocational students are comparable in their needs and behaviors.
Some institutions see dropout as the student's failure to continue from one year to the next in a program of studies. Thus, a learner who successfully completes first year courses but who chooses not to enrol in second year courses the following term would be considered a dropout. Woodley and Parlett say that at the British Open University they "are concerned with performance in a given year rather than with graduation rates or rates of continuation from one academic year to the next (1983, p. 2)." Another way to define dropout is by course: a student who registers for a course but does not write the final exam may be seen as a dropout.

These measures may seem straightforward, and they are commonly employed in a number of places, but—in some systems—students may become "inactive" and appear to have dropped out of a course but, later, pick it up again and write the exam. Bartels and Willén (1985) showed that passes increased from 65% to 76% after five years had elapsed since the commencement of students' distance study—which is to say that an extra 11% of the starters who temporarily appeared as dropouts actually finished their courses.

Another problem has to do with classifying failures as dropouts: in some places all students who do not gain credit for a course are classified as non-completers. There is also a question about entrance requirements—some institutions justify their dropout rates by saying their admission standards are low or non-existant. Even with its winnowing stage of stiff entrance requirements, the Fernuniversität
expects a pass-rate on its final exams of only 15% of the full-time students and 12% of the part-time students. That means they expect dropout rates of 88% among part-time students (Bartels & Willén, 1985, p. 7).

This contrasts with the Swedish system where dropout from distance education has been lower than dropout from comparable, face-to-face, part-time adult education classes: 50% completion for regular part-time students in the Faculty of Arts, 58% pass rate on the final exams for distance education courses (Bartels & Willén, 1985, p. 6).

The comparison between Sweden and Germany illustrates two issues regarding the definition of dropout. First, the Swedish system does not count non-starters in its dropout figures, whereas the Fernuniversität does count them. Second, both include failures with those who do not complete the course.

Woodley and Parlett (1983) selected four measures of performance most suited to the OUUK context which they use in different ways to count dropouts.

(i) Non-completion of final registration
This only concerns new undergraduates. The number not completing final registration is expressed as a percentage of those who were provisionally registered on 1 January.

(ii) Withdrawal rate
Students are considered to have withdrawn if they finally registered but did not sit the end-of-year exam.
(iii) Failure rate
Students are considered to have failed if they sat the end-of-year exam but did not gain a course credit.

(iv) Overall wastage rate
This is the percentage of students who finally registered but who did not gain a course credit. In other words it includes both 'withdrawal' and 'failure.' (p. 2)

For the OUUK, this set of measures is further complicated because they each may be student-based or course-based.

A large area of confusion centers on the question of when it can be assumed that a student has registered in a distance education course. Woodley and Parlett (1983) say "nearly three out of ten new students did not complete final registration," but that step at the OUUK occurs some time after the student might be considered registered by other institutions, and so some—if not all--of those provisionally admitted but not finally registered students whom the OUUK does not include in its overall wastage rate would be counted as dropouts elsewhere.

And, finally, an important lack of distinction exists around what happens to dropouts after they leave. Students who depart from one institution and later enroll at another—ie., who stay in the educational system though they leave a particular institution—are not distinguished from those whose institutional dropout is also a system dropout. Transfer students, even if they remain inactive for some time, may differ from system dropouts.

With such variation in definition, it is difficult to draw comparisons or aggregate results. This has an impact on
the kinds of conclusions that are possible later in the present study when research findings about dropout in distance education are screened through the model of the educator-learner relationship developed in the previous chapter.

**B. Defining Dropout for the Present Study**

Since the data in this study originate in published literature, the definitions of those individual documents will persist. In general, the present study will view as dropout whatever an original study defined as dropout. Where possible, the definitions associated with the data will be noted, and reservations voiced. There will be no attempt made at statistical meta-analysis; analysis will be confined to observing and interpreting dropout trends related to the educator-learner relationship in distance education.

**C. Rates of Dropout from Distance Education**

No matter how they are measured or what they are measuring, it does appear that distance education dropout and/or completion percentages vary dramatically—from about 5% dropout or 95% completion to about 90% dropout and 10% completion. Table 2 below illustrates this range. The 50% figure referred to as an average a number of times already in the present study is supported by Bååth (1984).
Table 2.

Some Rates of Dropout and/or Completion for Distance Education.

<table>
<thead>
<tr>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over six years and 65 credit courses offered by teleconferencing from</td>
<td>Garrison (1987)</td>
</tr>
<tr>
<td>the University of Calgary, dropout rates were 5.6%.</td>
<td></td>
</tr>
<tr>
<td>Southern Alberta Institute of Technology courses by teleconferencing</td>
<td>Garrison (1987)</td>
</tr>
<tr>
<td>have a dropout rate of 10%.</td>
<td></td>
</tr>
<tr>
<td>Completion of 3 unit distance education course at NKI-skolen was 82%.</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>After 3 terms at Swedish universities, 65% of the panel group had</td>
<td>Willén (1981)</td>
</tr>
<tr>
<td>completed their studies. After 4 years, passes went up to 76%</td>
<td></td>
</tr>
<tr>
<td>Athabasca University's completion rate for audio teleconferencing was</td>
<td>Garrison (1987)</td>
</tr>
<tr>
<td>66.7% while correspondence (home study) was 44.3% and correspondence</td>
<td></td>
</tr>
<tr>
<td>supported with seminars was 44.6%.</td>
<td></td>
</tr>
<tr>
<td>When non-starters are included with non-completers, dropout rates are</td>
<td>Bååth (1984)</td>
</tr>
<tr>
<td>around 50%.</td>
<td></td>
</tr>
<tr>
<td>Completion of 12 unit distance course at NKI-skolen was 44% (+ 24%</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>still working on the course).</td>
<td></td>
</tr>
<tr>
<td>At the Fernuniversität, pass-rates for full-time students are about</td>
<td>Bartels &amp; Willén (1985)</td>
</tr>
<tr>
<td>15% and pass-rates for part-time students are about 12%</td>
<td></td>
</tr>
<tr>
<td>For Norwegian seamen enrolled in correspondence courses, completion</td>
<td>Rekkedal (1972)</td>
</tr>
<tr>
<td>rates were 10% to 20%.</td>
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</table>
Obviously, a number of factors could be associated with the variation seen in the above table. Certain of these may be unique to distance education, but others might be shared with intramural education. Distance education is linked in many ways with higher education and adult education. Indeed, the rates of dropout from distance education tend to be comparable to dropout rates from other "non-compulsory, part-time adult study" (Bååth, 1984, p. 33). Perhaps surprisingly, they are also similar to dropout rates from American campus-based, full-time, higher education. Recent estimates predict that 56% of an entering cohort will drop out from the typical [American] four-year college (Tinto, 1987, p. 15).

This would suggest that characteristics which are unique to distance education probably are not responsible for the greatest percentage of dropout. However, two things need to be considered before excusing dropout from distance education on the grounds that it is no worse than in other sectors. First, some researchers (for example, Rekkedal, 1985) assert that dropout from distance education does exceed dropout from face-to-face education. Second, the basic premise of the present study is that all forms of education entail an educator-learner relationship. If characteristics of that relationship are associated with dropout, those characteristics might well be found in a number of different educational modes. For example, distance in the educator-learner relationship is transactional rather than geographical—-that is, even face-to-face education involves
degrees of distance in the educator-learner relationship. Therefore, should some kind of transactional distance in the educator-learner relationship be associated with dropout, that phenomenon might be found in all modes of education. This is not to argue that dropout is indeed associated with distance in the educator-learner relationship; it is only to point out that comparable dropout rates in other educational sectors do not necessarily mean that all dropout is caused by personal factors which are unresponsive to the specific educational experience.

Summarizing the situation as he sees it from his experimental and survey research and his review of dropout literature, Rekkedal (1985) says that dropout from distance education normally is considerably higher than in full-time face-to-face education, and that the number of students dropping out is especially high in the beginning of studies, but not generally higher than in other forms of part-time studies. The next section looks at the phenomenon of dropout at the beginning of distance education studies.

D. Early Dropout

The largest number of dropouts from distance education—non-starters—occur before students submit any work, at the beginning of a course (Bååth, 1984; Rekkedal, 1972, 1985; and others). Similarly, Tinto (1987, p. 49) reports that a sizeable portion of institutional withdrawals from colleges occur before the first marking period. Tinto (1987, p. 126)
goes on to attribute that early withdrawal to the inability of new students to make the adjustment to college. Distance students may have less of an adjustment to make since their social and occupational relationships may stay the same when they begin studies, but they may also be left to orient themselves through this transition with little support from the institution. For whatever reason, a large, early attrition is found in almost every distance teaching institution, but it has been reported in different ways.

The OUUK, as has been noted, views this portion of student attrition as lack of final registration and does not count it as part of the overall wastage rate. Between 1970 and 1983 there were 579,678 students permitted to enroll for a degree by correspondence through the OUUK (ie., potential starting students). Of these, 286,937 were provisionally registered (Keegan, 1986, p. 253). The 292,741 non-starters (over 50%) might appear as dropouts at institutions with a different registration process. Shale (1980), writing about the comparison between dropouts from the OUUK and Athabasca University, elaborates on the invisibility of these students in the OUUK statistics.

Keegan (1980) cites completion rates of around 70% for O.U. courses. However, if we examine the situation closely we note the following: 50% of those people applying to enter the O.U. are refused; only 75% of those accepted for a position actually enter the O.U.; and of this 75% only 70% proceed through provisional enrollment to "finally registered". O.U. course completion estimates use the number of final registrations as the base figure. This means that there are three "screening" steps that
students pass through before they are considered "true" course enrollments. In order for the O.U. figures to be comparable to the AU figures, the O.U. would have to admit all applicants and use this figure as the denominator in their course completion estimates. (Shale, 1980, p. 7)

Early attrition appears to be motivated by the kinds of factors students themselves mention most frequently: lack of time, changes of plans, domestic or job factors, and the cost of studying. Because of its timing and also because of the reasons given by students for their early withdrawal, it could be argued that non-starters drop out prior to entering the educator-learner relationship. It is possible, however, that the educator-learner relationship does influence early dropout. Non-starters may not have completed any assignments, but they have had contact with the institution, have been informed about courses, may have received a course package, and may have been contacted by a tutor before they drop out. A number of institutions (notably, NKI-skolen) have introduced counselling procedures to establish immediate contact with new students, thus successfully reducing the number of non-starters (Rekkedal, 1985). This would seem congruent with Tinto's (1987, p. 126) observation about early dropout from higher education mirroring the inability of new students to make the adjustment to college.

The early attrition of non-starters, seen as the single largest area of dropout from distance education, comes up again in other parts of this chapter, especially in connection with data on counselling.
This part of Chapter V has discussed dropout from distance education in general to provide background for the rest of the chapter. The discussion will now narrow its focus to the connection between the educator-learner relationship and dropout from distance education. The research data indicate that students do not usually attribute their dropout, early or late, primarily to characteristics of the educator-learner relationship. Despite this fact, there are several reasons for this chapter's concentration on the association between characteristics of the educator-learner relationship and dropout from distance education. These will become clear in the next section.

2. The Focus of the Second Research Question within the Larger Picture of Dropout

It is important to recognize that the present study does not attempt to explain dropout from distance education. The second research question has a far more limited focus: it is interested in the connections between characteristics of the educator-learner relationship and dropout. Most dropout from distance education has not been associated with characteristics of the educator-learner relationship, although some researchers have speculated that elements of that relationship might have a more important influence than
the data indicate (Bååth, 1984; Keegan, 1986; Willén, 1981; Woodley & Parlett, 1983).

In his survey of "Research on completion and discontinuation in distance education" Bååth reports that "other work (75%) and lack of time in general (65%) were stated as the main causes of not making progress in one's course" (1984, p. 34).

The causes of and reasons for non-completion given by the students are most often factors which are not directly related to the teaching provided: lack of time (generally due to the student's gainful employment), changed plans and including ill health, family problems etc. (Fairing & Hughes 1950, Bradt 1956, James & Wedemeyer 1959, Sheath 1965, Sloan 1966, Rekkedal 1972, 1978, Houtkoop 1979). Some respondents do give teaching-related factors as a major cause or reason, however, eg difficult and uninspiring course material (Kustermann 1970), too long turn-around time of assignments and a harsh tutor (Harter 1969), or difficulties in studying on one's own (Wangdahl 1979). (Bååth, 1984 p. 34)

Bååth (1984, p.34) also reports that from 46% to 24% of non-completers who answered survey questions in the various studies he examined for an EHSC review of European correspondence courses (Bååth, 1980; Flinck, 1978) said that they found the course material dull or difficult to understand, that troubles with the assignments had seriously interfered with their study rate or that assignments had been difficult to understand. These are similar findings to those of Woodley and Parlett (1983) in their evaluation of many dropout studies done at the OUUK. They mention domestic and job factors (77% to 53%) as the main reasons given by
students for dropping out, followed by a lower percentage of reasons related to courses (27% to 36%).

Although only about one quarter (and up to almost half) of distance education dropouts responding to such surveys have identified factors in the educator-learner relationship as contributing to their non-completion, these factors do appear to affect persistence and they may combine with other circumstances to deter a student from completion.

A. Multi-Causal Dropout and the Educator-Learner Relationship in Distance Education

Dropout from distance education is usually considered a multi-causal problem (Woodley & Parlett, 1983, p. 23). While the educator-learner relationship does not appear to be a primary cause of dropout, it may compound with other factors.

One would guess... that material better adapted to the students in question could have made at least some of them rearrange their time schedules, change their priorities—and consequently hold on to their initial plans. This is also indicated by the students who actually state teaching-related factors as a major cause of their dropping out. (Bååth, 1984, p. 34)

Regression analysis might tease out the impact on dropout of the factors associated with the educator-learner relationship, but only if the analysis includes statistics which represent those factors. Multivariate work on dropout from distance education has often used data collected for a more general purpose; such data yield only limited insights into the educator-learner relationship.
While recognizing the multi-causal nature of dropout, one fairly common way to think about student attrition has been to see if certain types of students were more likely to drop out, or if certain kinds of courses had predictably higher rates of dropout. Personal factors such as sex, age, previous educational attainment, geographical location, course load, and date of registration—information about students which may be available from an institutional databank—and similar factors about courses have been analyzed to see if they correlate with dropout rates. Using a multi-variate technique, Woodley and Parlett could explain about 40% of the variability in the OUUK course pass rates in their study.

A simple interpretation of the whole equation would be that a course is most likely to have a low pass rate [ie, a high dropout rate] if it has large numbers of students in their fifth or more year of Open University study and it has many students taking two or more courses and it has few housewives and it has many students from the London region.

We have also shown that course wastage rates are related to certain features of the course themselves. . . . one would predict that a course would have a very high wastage rate if it was a half credit, it had no summer school, it had an M in the course code, it had been presented for several years and that it was a third of fourth level course. (Woodley & Parlett, 1983, p. 17)

Some of these factors associated with dropout or with completion at the OUUK fall outside the educator-learner relationship, but some are within it and could be manipulated by the teaching institution. The OUUK could stop offering half credit courses and could insist on summer schools for all courses, for instance.
A limitation of this kind of research is that it does not necessarily explore causality, even when it finds correlations. Findings about variables may differ from situation to situation. For example, men are more likely to drop out of the OUUK (Woodley & Parlett, 1983) and women are more likely to drop out of the Fernuniversität (Bartels & Peters, 1986, p. 107).

The question of how much of the multi-causal dropout from distance education is influenced by the educator-learner relationship will be discussed again in connection with Tinto's (1987) theory about dropout from higher education.

**B. Alterable Factors**

The focus of the second research question may be hazy when it comes to the portion of distance education dropout which can be associated with characteristics of the educator-learner relationship, but the question is clearly focused in another way. It addresses factors which are potentially alterable by the distance teaching institution.

Chacon-Duque (1985, p. 7) criticizes the "'classical' parameters whose influence in educational outcomes has been widely tested in all sub-fields of education"--factors such as socio-economic background, intelligence and abilities, and academic attainment--for being "unalterable through actions of the academic institutions" and so a poor choice of focus in educational research.
As reaction to this problem, a more recent trend of research . . . suggests that educational inquiry and practice would do better if they focus on "alterable variables," those that can be modified by educators. (Chacon-Duque, 1985, p. 7)

It is in keeping with one of the basic motivations for the present study—to connect scholarship with practice—that the second research question seeks to identify characteristics of the educator-learner relationship associated with dropout because those characteristics might be modified in practice.

This part of Chapter V has looked at the specific focus of the second research question within the larger picture of dropout from distance education. This focus brings the discussion back to the model of the educator-learner relationship in distance education which was proposed in Chapter IV. The following section presents a theoretical model of dropout which relates to that model.

3. A Theoretical Framework about Dropout Related to the Model of the Educator-Learner Relationship in Distance Education

So far, the discussion of dropout in this chapter has skirted the issue of dropout theory. Distance education lacks its own dropout theory. However, Tinto's work on dropout from higher education connects in several ways with the model of the educator-learner relationship proposed in Chapter IV.
Tinto's dropout model, shown in Figure 10, "looks to the social and intellectual context of the institutional environment, as playing a central role in the longitudinal process of individual departure" (1987, p. 113).

the model seeks to explain how interactions among different individuals within the academic and social systems of the institution lead individuals of different characteristics to withdraw from that institution prior to degree completion (Tinto, 1987, p. 113)

This focus on interactions places the educator-learner relationship at the core of the dropout problem. Even though the interactions Tinto selects as factors in his model are wider in type than those examined in the present study--they include social relationships with other students--he argues that the interactions between students and faculty have a particular importance (Tinto, 1987, p. 84). In explaining his model Tinto says:

Given individual attributes and dispositions at entry, the model further argues that subsequent experiences within the institution, primarily those arising out of interactions between the individual and other members of the college, are centrally related to further continuance in that institution. Interactive experiences which further one's social and intellectual integration into the academic and social life of the college are seen to enhance the likelihood that the individual will persist within the institution. They do so via the impact integrative experiences have upon the continued reformulation of individual goals and commitments. (Tinto, 1987, p. 115)

The following sections describe Tinto's work and discuss its implications for associations between dropout and
characteristics of the educator-learner relationship in distance education.

A. Tinto's Theoretical Work on Dropout

Tinto's (1975; 1985; 1987) theory of individual departure from institutions of higher education rests on a broad-ranging synthesis of research on the multiple causes of student leaving. It draws on Durkheim's (1961) suicide theory and Van Gennep's classic study of the rites of passage to argue that colleges and universities are like other human communities, and that student decisions to withdraw are more a function of what occurs after entry than of what precedes it.

The strength of Tinto's (1975) work is evident, first from the extensive literature review with which he substantiated the choices he made in building his model; second, from the findings of multi-variate studies which tested his model; and third, from the way Tinto has himself developed his thinking in more recent articles and a book (1985, 1987). The combination of statistical analysis and critical reflection around the issues of dropout make him a leading researcher on dropout from face-to-face, higher education.
Figure 10. Tinto's model of institutional departure (1977, p. 114)
Tinto has a coterie of followers. Pascarella and Terenzini (1978-83), Chapman (1983), Sweet (1986) and others have employed and sought to validate Tinto's model in their work. Tinto (1982) himself advocated modifying his model for non-traditional student populations, since it has been tested mainly on freshmen at residential four-year colleges or universities.

**B. Tinto's Definition of Dropout**

An underlying theme of Tinto's work has been the need to clarify dropout—to understand and define it and thus distinguish it from related forms of behaviour. He criticizes the confusion in dropout statistics between course failure and voluntary withdrawal, and between permanent dropout and transfer to another institution, and he argues that dropout from face-to-face universities and colleges is misunderstood.

The so-called standard form of college progression—taking four years to earn a four-year degree—is no longer the standard. It may soon become the exception. Students are taking a variety of disparate routes to four-year degree completion; many of these routes involve at least one departure from an institution. Continuous enrollment to degree completion in one's first institution is simply not as common as we are wont to believe. Perhaps it never was. (Tinto, 1985, p. 30)

Tinto prefers the more neutral term "student departure" to the pejorative "dropout." If the term dropout is to be used, he would limit it to "situations in which there is failure on the part of both the individual and the institution" (p. 29).
My view is that the term dropout should be applied, if at all, only to those forms of departure involving individuals who are unable to reasonably complete what they came to the institution to achieve. Dropout may be seen as occurring when individuals of sufficient skill, competence, and commitment fail to achieve reasonable educational goals consistent with those of the institution or fail to receive sufficient institutional support to enable them to achieve those goals. . . . It would also be incorrect to label as dropout all those forms of departure that arise from substantial forms of incongruency between the individual and the institution. . . . Dropout, as defined here, primarily involves cases of academic dismissal and voluntary withdrawals arising from insufficient intellectual and social integration of the individual into the communities of the college. (Tinto, 1985, pp. 39-41)

This is a narrower definition of dropout than is commonly found in distance education research literature. If Tinto's definition of dropout were accepted, it would mean that the label of "dropout" could not be applied without an individualized evaluation of the educator-learner relationship.

C. Tinto's Major Factors

As indicated above, the major factors of Tinto's model represent the learner's intellectual and social integration—or, malintegration—into the educational community.

Though the intentions and commitments with which individuals enter college matter, what goes on after entry matters more. It is the daily interaction of the person with other members of the college in both the formal and informal academic and social domains of the college and the person's perception or evaluation of the character of those interactions that in large measure determine decisions as to staying or leaving. . . . Patterns of incongruence and
isolation, more than that of academic incompetence, appear to be central to the process of individual departure. (Tinto, 1987, p. 127)

Tinto views isolation as an element in the process of voluntary withdrawal from college. He sees isolation happening when "there is insufficient day-to-day personal interaction between the student and other people on campus" (p. 37) as well as when there is a prior lack of congruency.

In these cases, the students are unable to establish the personal bonds that promote community membership . . . . Frequent contact with faculty outside the classroom appears to be one of the most important forms of interaction impacting upon student persistence . . . . More importantly, it has also been shown to be instrumental in student intellectual and social development . . . . The more frequent and rewarding those contacts, especially when they go beyond the requirements of academic work, the greater the likelihood of persistence and high levels of individual growth. (Tinto, 1985, p. 37)

It is important to notice that "departure hinges upon the individual's perception of his/her experiences within an institution of higher education" (Tinto, 1987, p. 127). The model takes seriously the proposition that what one thinks has reality and that thought has real consequences. Tinto insists that "no study of the roots of student departure is complete without reference to student perceptions" (p. 127).

Tinto's model is an interactional system model of individual leaving. It recognizes that "the individual and the institution as represented by other members of its communities are continually in interaction with one another in a variety of formal and informal situations" (p. 127).
These interactions shape and reshape the individual's perceptions of membership and commitment. The institution is seen as made up of a range of communities, but not all students will perceive themselves as belonging in them—as being intellectually and socially integrated. Tinto argues that both intellectual and social integration are essential to student persistence because they are both "essential to the education of maturing individuals" (p. 128). Thus, his model of institutional departure is also a model of educational communities.

It is a view of the educational process which emphasizes the role of social and intellectual communities in the shaping of student life and the importance of involvement, that is integration, in those communities to student development. (Tinto, 1987, p. 128)

The educator-learner relationship in distance education is the primary interactive and integrative vehicle by means of which students at a distance engage in their educational community. The following section considers how Tinto's theoretical work on dropout connects with the model of the educator-learner relationship in distance education.

D. Implications for Distance Education

The first question must be, is intellectual and social integration within an educational community even possible for distance education students? The issue is more precisely one of perceptions—of how learners at a distance perceive themselves to be, or not to be, members of an educational
community. This question is an important one for dropout research influenced by Tinto's work, but it seems not to have been asked of dropouts from distance education.

Tinto's research has, however, influenced the development of some of the thinking about dropout in distance education. Keegan (1986, pp. 126, 173) hypothesizes that distance education students who experience a weak integration into the academic community have a tendency to drop out.

The separation of the teaching acts and the learning acts that is characteristic of distance education brings about a weak integration of the student into the life of the institution and this has been linked to drop-out (Tinto, 1975). It is hypothesized therefore that distance students have a tendency to drop-out in those institutions in which structures for the re-integration of the teaching acts are not satisfactorily achieved. (Keegan, 1986, p. 126)

Re-integration of the teaching acts and the learning acts in Keegan's view entails establishing a link between the educator and the learner. This link can be identified most easily with the spokes of transactional distance, relevance, and counselling, and with the axle of dialogue in the model of the educator-learner relationship. Thus, Keegan's hypothesis would mean that distance education systems where the educator-learner relationship exists primarily on the rim of independence--ie., where the spokes of support are weak and there is little dialogue--will be systems with high rates of dropout. There are data bearing on this hypothesis. A considerable amount of the dropout research in distance education relevant to the present study has investigated
connections between dropout and tutoring or counselling, activities within the quadrants of instruction and learning which might provide the kind of reintegration of the teaching and learning acts Keegan seeks.

The findings of Tinto and his followers (Pascarella, 1980) about the importance of informal educator-learner contact outside the classroom may seem especially disquieting from the perspective of distance education students. Social or informal contacts between educators and learners tend to be rare in distance education; tutor-student interactions are most likely to be around assessment of student performance or the requirements of academic work. This does not need to be the case; relevance can be heightened when a more informal knowledge of each other is exchanged between educator and learner, counselling can be personal as well as educational, and increased social equity can be a response to actual needs which probably must be voiced in order to be recognized. There can be a significant level of informal intellectual and social interaction, which does not deal directly with course work and so might be classified as "outside the classroom," in the educator-learner relationship in distance education.

Tinto's research has been mainly done on undergraduates at residential colleges. He does, however, hold opinions about retention in nonresidential colleges. He points to the possibility of using communications "to simulate the social and intellectual communities which might otherwise exist were it possible for persons to be on campus" (p. 166) but his
view is that there is "no substitute for periodic personal contacts between students and faculty" (p. 168). The other approach for nonresidential colleges that he suggests is "bridging the gap between college and external communities" (pp. 167-8). He sees this accomplished by a variety of means including outreach programs, classes off campus, flexible scheduling (night and weekend classes), and correspondence courses. Tinto attaches two caveats to these varied forms of participation.

To the degree that institutions seek to reach out to communities and retain students by enabling them to avoid on-campus attendance, they also endanger their ability to produce some of the intellectual and social gains that are the goals of higher education. . . . . So also is it the case that institutions should avoid the temptation of making their programs so relevant to community needs that they lose the ability and capacity to call into question the manner in which we organize our daily lives. (Tinto, 1987, p. 168)

Tinto's beliefs here could lead to the attitudes that distance education is a lesser form of education, and that providing access too openly to education which does not require students to be on campus may limit the extent to which that education can offer students "the tools to alter their own existence" (p. 168). However, if his caveats can be set aside, his notion of bridging the gap between college and external communities as a retention policy leads to an insight about those parts of the model of the educator-learner relationship in distance education which will, later
in this chapter, be found most empty of findings from dropout research that were located in the present study.

Social equity, access, certification and openness are areas of the model in which the educator-learner relationship bridges the gap between the educational community and external communities. Research on dropout from distance education needs to deal with the fact that these educational relationships are carried out not in a separate community—an ivory tower—but in the home communities of the learners (and, often, of the educators as well). The lack of a campus and the involvement of part-time learners and part-time tutors with each other, which often characterize distance education, make the interactions between the educational community and the external communities it serves even more important than in traditional colleges.

Interactions about access to education between the institution and external communities can be seen as occurring in the model through the spoke of support labelled social equity. It would seem logical to think that a learner's perception of membership in the educational community may be affected by his or her personal experience of social equity in the educator-learner relationship. It would also seem logical to think his or her community's perception of its experience of social equity in relationship with the educational institution would have an impact on the learner, as would the community's judgment about the learner's experience. Since it is the perception of intellectual and
social integration which Tinto's model identifies as crucial, the spoke of social equity can be seen as having an impact on dropout.

Also, the external community's valuing of certification available from an institution will have an effect on learners' commitments to earning those credits, degrees and certificates. Likewise, openness requires a context of dialogue, allowing educators and learners to negotiate the costs and benefits of different kinds of openness and arrive at appropriate educational responses to community needs.

Perhaps it would be reasonable to complement Keegan's hypothesis, about the likelihood of dropout in distance education where the teaching acts have not been re-integrated with the learning acts, with a parallel hypothesis about the need to re-integrate the educational community in distance education with the external communities of the learners. That is, on a personal level, if intellectual and social integration are essential for retention of students, then distance education might seek to make it possible for its learners to re-integrate intellectually and socially as learners with their external communities. An example of this functioning successfully is the dental assistant's program at OLA. Students must be employed in a dentist's office; the institution negotiates with the dentist to ensure that the student will have a chance to practice certain procedures under supervision; the student takes correspondence courses and attends some demonstration sessions but also carries out
learning activities on the job with the immediate support of the employer. Some courses in this program have 100% completion rates.

The last four sections have described the connection between Tinto's dropout theory in higher education and the educator-learner relationship in distance education. The next section reviews the model developed in Chapter IV and reiterates those elements in the model which could be expected to be associated with dropout.

**E. Summary: A Theoretical Framework Associated with Dropout and the Model of the Educator-Learner Relationship in Distance Education**

This section summarizes suggestions from theoretical work, discussed in the present study, that indicate characteristics of the educator-learner relationship in distance education, as they are depicted by the proposed model, may be associated with dropout. This summary is to prepare for the second half of the chapter which moves around the model and looks at research findings.

Beginning with the **axle of dialogue**: Tinto's (1987) theory with its emphasis on intellectual and social integration of the learner with the institution, and Keegan's (1986) hypothesis about the re-integration of the teaching and learning acts, suggest that low quantity and quality of dialogue in the educator-learner relationship will be associated with dropout. Holmberg's (1977, 1989) theory of
didactic conversation and his teaching theory or empathy approach (1989) also suggest that empathetic dialogue is central to successful distance education. Moore's (1983a) theory of telemathic teaching likewise focuses on dialogue.

Similarly, these perspectives suggest that low levels in three of the spokes of support--transactional distance, relevance, and counselling--could be associated with dropout. Willén's (1981) research supports this position. When it comes to the fourth spoke of social equity, Harris (1987), Perraton (1987), Wedemeyer (1981) and Lewis (1986), among others, identify positive values here as important for recruitment (attracting students not served by traditional modes of education) and also for persistence (meeting the needs of these learners). As well, social equity has been connected with Tinto's (1987) point about bridging the gap between the educational community and the external community. Thus, weakness or negative values on the four spokes of support radiating from the axle of dialogue in the proposed model might be associated with dropout.

Surveys of students' motivations for dropout as well as theoretical work by Holmberg (1985) and Perraton (1983), among others, suggest that various characteristics of media presentation, content, learning activities and course structure can be associated with dropout or persistence. Evaluation becomes an issue when it is associated with turn-around time--how quickly students get feedback on assignments (Rekkedal, 1973). It is also striking that by far the largest
portion of dropouts occur prior to any evaluation, and so some dropouts might be motivated by fear of evaluation.

In summary, then, theoretical analysis would suggest that the core areas of the model—the axle of dialogue and the spokes of support—may influence dropout. As well, the entire quadrants of instruction and learning are identified as possibly associated with dropout.

The second half of this chapter will present and discuss data from the research literature on dropout in distance education. Findings that can be connected with areas in the proposed model of the educator-learner relationship will be shown in tables. To introduce this process, the following section describes some limitations of that data.

4. Limitations of the Data on Dropout from Distance Education

Although considerable attention has been paid to dropout in the research literature of distance education—Garrison (1987) and Rekkedal (1985) say that no area of research in distance education has received more attention—there are practical, methodological and conceptual problems inherent in this research. These limit the quantity of data that are useful to the present study, and cause that data to be uneven in quality.
The first section of this chapter explained that dropout research in distance education is constrained by the lack of consistent definitions. As Garrison put it, "extreme caution must be exercised with dropout figures due to the variability of defining these phenomena" (1987, p. 97). Differences in cultures and institutions are so great that variation in context would make comparison difficult even if the definitions were standardized. The conclusion of a cross-cultural, multi-institutional study of turn-around times sponsored by the International Council for Distance Education warns:

one should be extremely cautious about generalizing the results of research studies across institutional contexts. There was enough variation in outcomes to suggest that the specific institutional context in which a study was undertaken has a major influence on relationships between the variables under investigation. (Taylor et al, 1986)

Garrison (1987), writing about researching dropout in distance education, provides a litany of criticisms that serve as further warnings.

It is fair to say that dropout research has been preoccupied with correspondence as the method of distance delivery, few research projects have developed systematic and on-going strategies, too much effort has been put into comparative studies with little recognition of the inherent complexities, theoretical frameworks have generally been nonexistent or borrowed indiscriminately from other disciplines, and no conceptual order has been proposed that can guide research. (Garrison, 1987, p. 97)

He also says that "too much research into distance education dropout has been demographic or descriptive surveys" (1987,
p. 95) or "disjoint and univariate studies" (p. 98) which do not further understanding of the complex human behaviours involved.

The impact on the present study of weak theoretical frameworks may seem less than critical, but atheoretical work has resulted in shallow and unfocused data on dropout in distance education. Only a fraction of the studies reveal associations between the educator-learner relationship in distance education and dropout. In particular, little relevant data is empirical. Of that, less is specific enough to distinguish, for example, the impact of tutor-student interactions around transactional distance (modifications to course structure) from interaction which increased the relevance of course content or helped a student acquire study skills.

A practical problem arises from the fact that much of the dropout literature in distance education is rather peripheral. Research reports may be ephemeral: Xeroxed conference papers, internal statements for institutions or ministries, publications in minor journals, documents from small presses with minimal print-runs, and so on--there has not been a large readership for this work. While the peripheral character of the data need not affect its quality directly, the lack of an easily recognizable literature to review when doing research has tended to isolate studies. It may also have contributed to the fact that the research reports themselves are too often less than thorough. It
certainly reduced the amount of data accessible to the present study. In some cases, findings were cited in a secondary source, the primary source was elusive, little could be determined about the original research, and so limited—if any—use could be made of those findings.

The research itself, as well as its publication, has sometimes suffered from limited resources. The rapid growth of distance education creates circumstances in which course production is essential and research may be seen as a secondary concern. Certain institutions, such as the Fernuniversität and the OUUK, have always had departments or centres or divisions devoted to research and evaluation. Many others have good intentions about building up a tradition of institutional research, but they may have lacked resources—time, money, knowledge—to conduct these investigations. One result of limited resources for research has been the use of extant data—registrar's statistics—and mail-back, ex post facto surveys. Return rates on dropout questionnaires tend to be very low (even at the OUUK: 33%, for example) which leaves scope for response bias. More in-depth and persistent research into the complex thinking and feeling involved in the educator-learner relationship would consume more resources than most institutions have had to spend.

The above section of this chapter has described some problems with the data available to answer the second research question: "What characteristics of the educator-learner relationship in distance education are associated
with dropout?" Concern with the educator-learner relationship per se in distance education dropout research tends to appear as an interest in the number of student-tutor contacts. These are differentiated, if at all, not by content or purpose but by who initiated them and whether they were made face-to-face, by telephone, or by correspondence. A related aspect of the educator-learner relationship which has been a concern in dropout research is the impact of different media on completion rates. Thus, even when there is data associated with a quadrant of the model, the findings are not always easily connected with specific characteristics of the educator-learner relationship.

5. Research on Dropout from Distance Education Associated with the Model of the Educator-Learner Relationship in Distance Education

Research findings associated with the model are presented and discussed in this part of the chapter. Where there are findings, tables display data connected with a quadrant or dimension of the model. The findings are of three types:

[1] statistical findings from specific studies,
[2] non-statistical conclusions from empirical studies,

The patterns which emerge are considered with regard to the trustworthiness of the results, their implications for the
educator-learner relationship, and their connections with the
theoretical framework.

Much of the remainder of this chapter is devoted to
tables. A commentary is woven between them.

A. Dropout Findings Associated with Instruction

Some aspects of the quadrant of instruction have been the
subject of dropout research in distance education. Woodley
and Parlett's (1983) insightful observations below are based
on their survey of dropout research done at the OUUK—ie.,
they are basically type 2 findings though they verge on type
3. Their observations sum up much of the research on the
impact of instruction on dropout in distance education.

A course's dropout rate is likely to be affected
by factors such as the intrinsic difficulty of
the subject matter, how well the course has been
designed and the amount and quality of support
provided by regional staff. (Woodley and
Parlett, 1983)

Table 3.
Dropout Associated with Instruction in General

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>In a longitudinal study of dropouts, most gave &quot;method independent&quot; reasons as most important, but between 38% and 9% of the students indicated that difficulties in organizing the studies,&quot; &quot;correspondence study method not suitable,&quot; &quot;course material not satisfactory,&quot; &quot;turn-around time too long,&quot; &quot;dissatisfied with tutors' corrections and comments,&quot; had been very important or of some importance.</td>
<td>Rekkedal (1976, 1978/ in English 1985)</td>
</tr>
</tbody>
</table>
A course's dropout rate is likely to be affected by factors such as the intrinsic difficulty of the subject matter, how well the course has been designed and the amount and quality of support provided by regional staff.

Persistence is enhanced by: good quality of instructional presentation in textbooks and study guides; variety of media in the course; and planned, student-centred support (i.e., proactive and less judgmental help leading to quicker course completion).

In an international study on distance education, it was found that the educational components most crucial to success are a relatively high amount of fostering of learner independence plus forms of control that are as highly individualized as possible. Or, in other words, learner-centred, flexibly-structured instruction is associated with success.

The first of these findings corroborates Bååth's (1984) assumption that teaching factors contribute to dropout. Woodley and Parlett (1983) describe the multi-causality of dropout in terms of "push and pull" factors, some of which are under the influence of the teaching institution.

The OUUK definition of dropout used by Woodley & Parlett has already been discussed. The studies from the OUUK and NKI-skolen are generally careful, institutionally-based, work. It is worth noting that almost all of Rekkedal's subjects have been male (95% of the experimental group in the 1985 study). NKI-skolen offers technical and vocational courses and does not attract many female students. Apart from the research from NKI-skolen, most data on dropout from
distance education comes from universities. It is not clear what differences, if any, exist in the educator-learner relationship for technical courses and for academic courses.

Chacon-Duque's findings seem logical. His response rate of 60% meant that some values were estimated for a key variable in his path model—faculty support. His subjects are not characteristic of distance education students since most of them were 18 to 23 years old, single, unemployed, American undergraduates who study full-time and have not interrupted their studies for long periods, and take distance courses only as a complement to campus instruction.

Graff and Holmberg's ambitious study had an overall response rate of 21% (14.3% initially), which makes it doubtful if their results are truly representative of all distance education world-wide. They constructed the composite factors of "learner independence" and "individualized control" from variables on their survey.

The following table displays findings connected with the spoke of support in the educator-learner relationship associated with relevance. Table 9 on tutoring also presents another set of data, some of which can be associated with relevance, as well as with counselling and transactional distance.
# Table 4.

## Dropout Associated with Relevance

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The 4th most frequent reason given for dropout was &quot;the studies not particularly useful,&quot; and the 7th was &quot;study difficulties.&quot;</td>
<td>Holmberg (1971/ in English in Rekkedal 1985)</td>
</tr>
<tr>
<td></td>
<td>In the EHSC project, dropouts said they had difficulty starting their studies (24%), that the dullness (24%) or difficulty (29%) of the course material had delayed them, that troubles with the assignments had interfered with their study rate (25%).</td>
<td>Bååth (1980, 1984) Flink (1978)</td>
</tr>
<tr>
<td></td>
<td>In two courses with extremely low completion rates, 42% &amp; 43% of the dropouts said the course material had been difficult to understand, 46%--dull, &amp; 45% said the assignments had been difficult to understand.</td>
<td>Bååth (1984)</td>
</tr>
<tr>
<td></td>
<td>Variables that increase difficulty are: the work load or amount of assignments; the academic load of the instructor (reduces time available for students); and the instructor's focus on reactive, assessment-centred support (ie., marks mistakes and answers students' questions).</td>
<td>Chacon-Duque (1985)</td>
</tr>
<tr>
<td></td>
<td>At the Fernuniversität, the top three factors judged to be important for the functioning of distance education by both dropouts and still enrolled students had to do with support for study: study circles, study guides, study technique.</td>
<td>Willén &amp; Bartels (1985)</td>
</tr>
<tr>
<td></td>
<td>OUUK math courses with summer school had an average wastage rate of 33% as compared with 47% for maths courses without summer schools.</td>
<td>Woodley &amp; Parlett (1983)</td>
</tr>
</tbody>
</table>
[2] There is a large variation in students' ability to cope with the course material. Therefore, different students need different structures and different supportive measures.

[2] The longer a student participates in a course, the greater the "side-bet" will be. Side-bets are identified in terms of time, effort, money, loss of social and family interaction, and self-esteem. These are invested in completion. Attrition due to personal reasons can be reduced by interactions which assist the resocialisation of adults to being students.

[2] In socializing the learner to the educational process, personalizing of teaching materials, teleconferencing, letters and messages, more than face-to-face contact give rise to change in attitude.

[2] Supportive measures must be set up quickly. Students' problems arise at different points in time.

[2] The need is for better contact between the student and the teacher when it comes to interpreting, analyzing, and discussing the content of the course.

[2] OUUK course with summer schools had lower wastage rates than those without across all faculties.

Again, most of these findings come from studies that were carefully done. The response rate on dropout surveys (Bååth; Chacon-Duque; Willén & Bartels; Holmberg) tends to be low, so these data may be somewhat questionable. Results from Willén's Swedish study are stronger, but it must be remembered that Willén's subjects were participating in a decentralized form of distance education, quite different from that of the OUUK or the FU.
Herrmann's subjects were 25 men, upgrading from being technicians, in the 2nd, 3rd and 4th years of an Associate Diploma in Engineering at an unnamed Australian institution. They were probably participating in a decentralized form of distance education. Herrmann's approach to the study was influenced by Glaser & Strauss (1967) and involved in-depth interviews with fairly open questions. It would be interesting to replicate this work with female subjects—perhaps for a group such as nurses—and also for students whose academic courses are less immediately relevant to professional upgrading.

Overall, the findings suggest that early and continuing contact between educators and learners is helpful for resocializing students, increasing or establishing content relevance, and helping the learner with the study. Traditionally difficult courses such as mathematics may have a lower risk of dropout if face-to-face instruction supplements distance teaching.

The next table looks at the impact of content on dropout.

Table 5.
Dropout Associated with Content

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The overall wastage rate at the OUUK was highest for 3rd and 4th level courses (37%). However, if students who do not complete their final registration are counted, more new students drop out (44% in 1981).</td>
<td>Woodley &amp; Parlett (1983)</td>
</tr>
</tbody>
</table>
Wastage rates in 1981 for OUUK maths and technology courses were above average, and for arts and social sciences below average. The highest dropout rate was 71% from upper level math; the lowest rates were 17% from second level education, upper level arts, and upper level technology courses.

Low difficulty of a course influences early attrition and high difficulty causes late attrition and lower pass rate; moderate difficulty enhances both completion and pass rate.

The OUUK experience of high wastage rates for 3rd and 4th level courses seems to contradict a more common finding that fewer students drop out in upper level courses. The balance may be between the student's increased skill at handling distance education, and socialization to that study, countered by the increasing difficulty of the course content. Another factor may be that other options for the pursuit of a degree become available to upper level students—they may transfer to traditional universities.

The finding about course difficulty and dropout by Chacon-Duque is a generalization from results produced by his path model. Limitations to his study were described above.

The next table displays dropout findings associated with mediated presentation.
Table 6.
Dropout Associated with Mediated Presentation

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>Increased variety of materials in addition to the textbook (ie. workbook, tv programs) reduces the average completion time for a course and reduces course difficulty.</td>
<td>Chacon-Duque (1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>Presentation quality is negatively affected by the number of semesters a course has been offered (ie. age of material).</td>
<td>Chacon-Duque (1985)</td>
</tr>
<tr>
<td>[3]</td>
<td>A shift in the balance of central academic staff attention from course production to course presentation should help to reduce dropout.</td>
<td>Woodley &amp; Parlett (1983)</td>
</tr>
<tr>
<td>[3]</td>
<td>A barrier is the differential ability of people to learn from media. Many &quot;second chance&quot; students associate tv and video with leisure and passive viewing, and they associate computers with calculating or with games, good for the younger generation, but not for themselves.</td>
<td>van Enckevort (1986)</td>
</tr>
<tr>
<td>[2]</td>
<td>The more tv programs associated with a course, the lower was the wastage rate. This was true for each faculty except Technology and each course level except foundation.</td>
<td>Woodley &amp; Parlett (1983)</td>
</tr>
<tr>
<td>[2]</td>
<td>Interactive system design including clear audio and video transmission for instructional tv were related to student learning and satisfaction in the televised classroom.</td>
<td>Hackman &amp; Walker (1990)</td>
</tr>
</tbody>
</table>
[2] A barrier for rural people was the use of tv instead of radio. This media choice was due to radio being controlled by a different political party. Not all areas had tv reception.

[2] The more radio programs or audio-cassettes, the lower the wastage rate. No relationship was found for Science and foundation courses, and it was not significant for full-credit courses.

[2] The greater the number of set text books, the lower the wastage rate. This was true for each faculty except Mathematics, for each course level and credit rating.

[2] Printed study materials were a stumbling block; students were unrealistic about the difficulty of the materials and the size of the commitment they had to make to study at the Fernuniversität.

The impact of television is interesting; being able to see an instructor may reinforce the learner's sense of being in an educator-learner relationship even when the programs are not interactive. Other characteristics of television may make it a poor choice for instructional medium—its high cost, fixed broadcast schedule, ephemerality (unless the student can tape the broadcast) plus the fact that it is not usually interactive. It is also important to note that the added value of television was found at the OUUK, in a country where that medium is readily available to students and where the university has developed many, very high-quality programs for broadcast over a major channel during reasonably prime times. Watching an OU educational program could become a
social event as well as an individual study event, and it might even foster greater understanding and support of learners at home and give rise to informal discussions. By contrast, de Freitas and Lynch (1986, p. 199) speculate that the lack of television reception in rural areas of Venezuela was one of the reasons for rural persons being underrepresented among the National Open University of Venezuela's provisional students.

O'Neill (1989) conducted a telephone survey of a sample of OLA and North Island College students to investigate their learning experiences and media preferences. Despite methodological weaknesses, his findings suggest students believe that "increased personal contact and a combination of media yield an increase in motivation and enjoyment of the course, which in turn, they say, makes them more likely to complete the course." They also support the value of multiple media presentations of course materials, saying that "reading is not enough" (O'Neill, 1989, p. 111-112).

Hackman & Walker (1990) used a questionnaire to assess the responses of 102 students in Colorado to 35 different courses offered by television with two-way audio available during the live broadcasts. The questionnaires addressed system design and instructional style.

Van Enckevort discusses his perceptions that new media pose new barriers to education and that distance education is designed more to meet the needs of the institutions than the learning needs of the students. He suggests that distance
education is "open to Martha, but closed to Mary" (1986, p. 57). By this he means that the student who most wants to sit at the feet of the teacher is barred, though the student who most wants to fulfill her domestic duties is included. While this is not a finding based directly on empirical data, it is an insightful observation by an informed and thoughtful scholar.

The following table presents findings associated with course structure.

Table 7.
Dropout Associated with Structure

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[3]</td>
<td>Highly structured instruction tends to exclude learners investigating areas of personal significance and the interrelationship of social experiences, themes and motives.</td>
<td>van Enckevort (1986)</td>
</tr>
<tr>
<td>[3]</td>
<td>The rational design of curricula and the use of new technology contribute to making the presentation of subject matter a one-way communication. They also contribute to students' belief that their task is only to provide answers sufficient to enable them to pass examinations.</td>
<td>van Enckevort (1986)</td>
</tr>
</tbody>
</table>

Very little of the dropout research located in the present study addressed course structure, per se. Although van Enckevort's observations seem logical, he does not
substantiate them with reference to particular research, so they must stand more as opinion than empirical data. More dropout research has looked at the degree of flexibility associated with course structure--transactional distance--and findings from that work are presented in the following table.

Table 8.
**Dropout Associated with Transactional Distance**

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[3]</td>
<td>Allowing students with difficulties to opt for taking a course over an 18 month or 2 year period should reduce dropouts.</td>
<td>Woodley &amp; Parlett (1983)</td>
</tr>
<tr>
<td>[2]</td>
<td>In a study covering 10 years of post graduate level distance education at the Central Institute of English and Foreign Languages, Hyderabad, it was found that administrative constraints provoked dropout. It is suggested that more flexible and student-centred designs for learning, in the context of developing countries, would reduce dropout considerably.</td>
<td>Koul (1984a)</td>
</tr>
<tr>
<td>[1]</td>
<td>At the Fernuniversität, 50% of the full-time students have a full-time job.</td>
<td>Bartels &amp; Peters (1986)</td>
</tr>
<tr>
<td>[1]</td>
<td>Full-time students are expected to study 40 hours each week of the semester (16 weeks).</td>
<td>Bartels &amp; Peters (1986)</td>
</tr>
<tr>
<td>[1]</td>
<td>Most female graduates had problems at home because their husbands or children did not like to help with housework. Males do not have such problems.</td>
<td>Bartels &amp; Peters (1986)</td>
</tr>
<tr>
<td>[1]</td>
<td>Only 25% of the FU students are female. Female students dropout more frequently than males.</td>
<td>Bartels &amp; Peters (1986)</td>
</tr>
</tbody>
</table>
[1] Swedish younger women (25-34) had the lowest pass rate (69%) and older women (45+) had the highest (86%). Younger men had a higher pass rate (76%) than older men (71%). Older women as a group thus studied both quickly and well.

[1] At the Fernuniversität, students who shift from full-time to part-time study count as dropouts. Bartels & Willén (1985)

[1] At the Fernuniversität, after 10 years, a large percentage of part-time students are still studying for a degree. Bartels & Willén (1985)

[1] At the Fernuniversität, 12% of the part-time and 15% of the full-time students earn degrees. Bartels & Willén (1985)

[1] At the Fernuniversität, 18% of those still enrolled and 32% of dropouts thought longer study periods would be important to the functioning of distance education. Willén & Bartels (1985)

[1] After 3 terms, Swedish university distance education students completing their studies averaged between 58% and 65%. After 5 years, this average rose to 76%. Willén (1981)

[2] Many students wrote that the free pace of study was both the main advantage and the main disadvantage of correspondence study. Rekkedal (1978/in English 1985)

Data that bear on transactional distance as well as relevance and counselling can also be found in Table 9, in the following section on tutoring. While transactional distance and structure have been considered here in the section on instruction, they are also part of the quadrant of openness.

Koul's study is interesting for several reasons. It is research on dropout from India, it covers a decade, and its
subjects are graduate students. The study's method is not fully described in the Xeroxed conference paper summarizing its findings, but it would appear to have been conducted in a thorough way. Koul's observation that India, and other developing countries, may impose especially rigid administrative constraints on learners may be the case, but some developed countries such as Germany and France seem to have rather inflexible requirements as well.

Bartels and Peters's findings are supported by years of research at the FU. The sequence of type 1 findings in the above table could suggest a need for greater flexibility in course structure—especially, in the length of study periods—at the FU. The university's rigid schedule and heavy study demands, coupled with the other responsibilities of adult students—particularly women—appear to be connected with dropout. As Willén's results indicate, younger women—who may have to juggle child care, paid-employment, and studying—may not have the time necessary to complete courses, although older women show up as the most efficient distance education students in Willén's study. While these findings do not bear directly on the importance of transactional distance, they may be interpreted as evidence that students sometimes drop out of distance education when they cannot negotiate structural issues around pacing and workload in their studies.

Perhaps the ability to respond to the individual student's need for adaptations in course structure and course
pacing is a characteristic of the educator-learner relationship that can be associated with lower dropout, whatever the cultural context. This is one of the few areas where there are findings from developed as well as developing countries, and it is interesting that they seem congruent.

Looking at the overall picture in the quadrant of instruction: flexibility in pacing, stimulation and relevance in instruction, variety in media presentation, and opportunities for responsive interactions would appear to be positive characteristics of the educator-learner relationship in distance education when it comes to reducing that portion of student attrition which can be associated with instruction. The key factors would appear to be the educator's ability—whether as a person or as an institution—to meet the particular needs and learning styles of a variety of students, and the learner's ability to juggle study with other responsibilities, to persist through difficulties, and to seek appropriate help from the educator.

This section has presented dropout data associated with the quadrant of instruction in the proposed model of the educator-learner relationship in distance education. Some of these data are also relevant to the quadrant of learning and the quadrant of openness. Indeed, given the rather general character of many dropout findings, allocating them to one quadrant in these tables is a matter of convenient organization rather than an indication of discrete categories.
This fact is especially apparent when it comes to Table 9 in the following section on tutoring.

**B. Tutoring**

It was decided to cluster the data on tutoring and dropout between the sections on instruction and learning since the distant education dropout studies do not clearly separate the different tutor and counselor roles in the educator-learner relationship. These tutoring data have a bearing on learning—through the spokes of relevance and counselling—and on instruction—through the spokes of relevance and transactional distance. They also play a role in the quadrant of certification (counselling) and in the quadrant of openness (transactional distance). Thus, the following table presents data that address three out of the four spokes of support.

As dropout research in distance education and emerging distance education theory began to indicate that improved tutoring could be associated with higher completion rates and lower dropout, tutoring became a factor in more studies. A number of these have already been described. The findings from Rekkedal are conclusions based on research at NKI, much of which was experimental in design. Bååth's findings come from his survey of distance education dropout research, mainly from Northern Europe, the UK, and the USA and from an experiment on the use of computers in distance education. Woodley and Parlett's conclusions and Sewart's finding
summarize research about dropout at the OUUK. Willén's findings derive from her major study of distance education at Swedish universities. Koul's 3828 subjects were graduate students from all over India. All these studies have been carefully conducted and their findings can be considered reasonably trustworthy.

This section on tutoring is anomalous in the way its data are presented. Because Table 9 is so long, it has been broken up with commentary instead of leaving all the discussion to the end.

Table 9a.
Dropout Associated with Tutoring

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2-3]</td>
<td>It seems desirable that, at a very early stage, the tutor contacts each new student. The main purpose of the initial mail contacts (on the tutor's initiative) should be that the student and the distant tutor become acquainted with each other.</td>
<td>Báåth (1984)</td>
</tr>
<tr>
<td>[2-3]</td>
<td>The fact that the student has to study in isolation from fellow students and teachers plays an essential part in dropping out.</td>
<td>Bartels &amp; Peters (1986)</td>
</tr>
<tr>
<td>[2]</td>
<td>Face-to-face teaching combined with correspondence education has a positive effect on completion rates.</td>
<td>Ness (1976/in English in Rekkedal 1985)</td>
</tr>
<tr>
<td>[1]</td>
<td>Academic and social integration contributed the most (18%) to predictive efficiency in a discriminant analysis of dropout from the OLI, based on an adaptation of Tinto's path model.</td>
<td>Sweet (1986)</td>
</tr>
</tbody>
</table>
[2] The percentage of students complaining about missing social contact is constantly increasing.

Bartels & Peters (1986)

[1] In telephone discussions between students and their tutors, 32% of the discussions dealt with personal or social matters.

Flinck (1978)

[1] All of the 14 students in a survey who, at the time of enrollment, said the main reason they chose correspondence study was because they preferred to study alone, had dropped out.

Rekkedal (1978/in English in Rekkedal 1985)

[2] Most of the distance students in Sweden and Germany need a well-functioning feedback system; personal contact with the teacher/s and the written materials seem to be the most important components.

Willén & Bartels (1985)

[1-2] Cultural differences around how students and teachers communicate may account for 70% of German students asking for study circles in their home town (student peer groups) while only 36% of Swedish students ask for this.

Willén & Bartels (1985)

[2] Supportive measures must be set up quickly. Students' problems arise at different points in time.

Willén (1981)

[2] The need is for better contact between the student and the teacher when it comes to interpreting, analyzing, and discussing the content of the course.

Willén (1981)

These findings tend to support the theoretical framework's prediction that intellectual and social integration between educator and learner would be an important deterrent to dropout, and that learners need the individualized support of educators. The research by Bååth, Bartels and Peters, and Willén has been discussed earlier and can be accepted. Rekkedal's study was a part of the on-going, careful research work at NKI. The Willén and Bartels' study
compared results from Willén's (1981) work on Swedish
distance education with Bartels' research at the FU. Their
discussion highlights the differences between the two systems
of distance education. Quite a few studies have demonstrated
that the combination of face-to-face teaching with
correspondence improved completion rates. This work is
consistent with the OUUK finding (Woodley & Parlett, 1983)
that courses with a summer school have a lower dropout rate.

Sweet's study is not a perfect transposition of Tinto's
model to distance education, especially with regard to the
substitute variable used to represent social integration, but
it is informed by appropriate research conventions. Sweet
substituted students' ratings of the helpfulness of their
tutors, with whom they have mediated contact intermittently,
for Tinto's factor that represents social interactions
students have on a day-to-day basis with their college
community. Sweet's conclusions also suffer from a somewhat
low (43%) response rate to his survey, and from the fact that
he investigated student perceptions several months after
their courses ended, and from a rather shallow depth of
questioning. His telephone survey thus did not observe the
longitudinal formation and change of student commitment in
response to experiences at OLI. Overall, his findings should
be viewed with some caution when it comes to generalizing
from them, but they are a valuable attempt to adapt Tinto's
dropout theory to distance education.
Flinck's study is one of the few which carried out a content analysis of tutor-student interactions and it is a substantial piece of work.

Table 9b. Dropout Associated with Tutoring

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2]</td>
<td>Student satisfaction with the course and the tv instructor was related to a number of the teacher's behaviours: used humour, asked questions, involved students, praised student contributions, and maintained a confident, expressive non-verbal demeanor. Providing individualized attention to off-campus students and using vocal variety were particularly important (U. of Colorado).</td>
<td>Hackman &amp; Walker (1990)</td>
</tr>
</tbody>
</table>

These studies have been described previously. The findings suggest that the educator-learner relationship—even when it is virtual, or imaginary—is improved by qualities that make it (appear) supportive in character and that (appear to) make conversation easy. This is congruent with Holmberg's empathy approach.

Table 9c. Dropout Associated with Tutoring

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[3]</td>
<td>Increased and more active tuition and counselling during the course should reduce dropout.</td>
<td>Woodley &amp; Parlett (1983)</td>
</tr>
</tbody>
</table>
In an international study on distance education, it was found that the use of submission assignments for learner support rather than for assessment purposes was an important learner-friendliness factor contributing to student success.

The use of preproduced comments and solutions in addition to the tutor's corrections and comments in two parallel experiments resulted in a significantly larger number of students who received the preproduced material completing their courses in one group and no significant difference in the second group.

Both experimental groups had extremely favorable attitudes towards the preproduced material.

Computer assisted distance education, where tutor corrections and comments are programmed into and printed out by a computer, resulted in a higher percentage of starters than traditional distance education.

In one of the two courses, the computer assisted version also showed a greater proportion of completers than the traditional distance education course.

Tutoring makes a difference in the middle, as well as at the beginning of the educational process. The use of preproduced comments and computer-assisted tutoring may allow for longer and more individualized and teacherly responses to students' work. Despite the fact that this tutoring is done by correspondence, these findings relate to the theoretical framework's suggestion that improved dialogue within the spokes of support might enhance persistence. Most of these studies have been discussed already; the Rekkedal and Ljosa
work is from NKI-skolen and written up only in Norwegian but its findings are cited in English (Rekkedal, 1985).

Table 9d.

Dropout Associated with Tutoring

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2]</td>
<td>The active and successful students were the ones who made use of the possibility to call the tutor by telephone.</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>At OLI, a positive relationship which is statistically significant was found to exist between telephone contact and assignments submitted, but the degree of positive correlation was modest.</td>
<td>Scales (1984)</td>
</tr>
<tr>
<td>[1]</td>
<td>At NKI, 92% of the experimental group said that telephone tutoring was a help in their distance study course, and 84% said that telephone tutoring reduces the possible feeling of isolation.</td>
<td>Rekkedal (1989)</td>
</tr>
<tr>
<td>[2]</td>
<td>It seems that at least one tutor-initiated call is necessary in order to involve a large number of students in a telephone tutoring system.</td>
<td>Rekkedal (1989)</td>
</tr>
<tr>
<td>[2]</td>
<td>In an experiment at NKI, the use of telephone tutoring did not influence student success or attitudes towards distance study in a statistically significant way.</td>
<td>Rekkedal (1989)</td>
</tr>
</tbody>
</table>

Telephone tutoring has been a factor in some dropout research. Despite the preference for this method in theory (Keegan, 1986), and the apparent support for it by students, there is little convincing empirical evidence yet that it prevents dropout. This may have less bearing on the medium than on the content of the telephone calls. Chacon-Duque (1985) surmises that tutors only called students when they
felt those students were in trouble, and that their messages were associated with assessment rather than with support.

Scales' study was meticulous and done at OLI, an institution where telephone tutoring has been a fixture since the beginning. Although her findings are positive and statistically significant, they offer only weak support for the value of this mode of tutoring in enhancing persistence. In some situations and countries telephones are impractical as a communication mode, and even where they are practical, some distance education students move about which may make contacting them difficult. O'Neill found that many more of the dropouts than the completers in his OLA study had moved from their previous addresses after two years when he set out to interview them by telephone (a detail he reported informally when discussing his study). The Rekkedal (1989) experiment on telephone tutoring, which failed to produce statistically significant evidence of the value of telephone tutoring in reducing dropout, suffered from the fact that tutors never succeeded in contacting about half of the experimental group by telephone. The subjects were students in a course on establishing trucking companies; their occupation may have been connected with the difficulty tutors had in telephoning them at home.
Table 9e.

Dropout Associated with Tutoring

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2]</td>
<td>The tutor's work is ranked last of the following components: the text, the self-check exercises, the assignments for submission, and the tutor's corrections and comments.</td>
<td>Graham (1969/in English in Rekkedal, 1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>The majority of students were critical towards what they had experienced concerning the work of tutors.</td>
<td>Glatter &amp; Wedell (1971)</td>
</tr>
<tr>
<td>[2]</td>
<td>At NKI, student expectations are not totally fulfilled with regard to tutors but the majority of students seems to have a positive attitude concerning the work of tutors.</td>
<td>Rekkedal (1978/in English in Rekkedal 1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>In a study covering 10 years of post graduate level distance education at the Central Institute of English and Foreign Languages, Hyderabad, it was found that dropouts did not get the desired amount of tutorial help.</td>
<td>Koul (1984a)</td>
</tr>
<tr>
<td>[2-3]</td>
<td>Tutors often feel just as isolated as the correspondence students, and their tasks may become routine, partly due to the division of work, which seems to be characteristic of distance education.</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>[1-2]</td>
<td>Most of the British tutors are part-time employed (99%), there are few training facilities for tutors, and normally they are paid a fee per assignment corrected.</td>
<td>Harris (1975)</td>
</tr>
<tr>
<td>[3]</td>
<td>Few professionals today would accept work as full-time correspondence tutors. This is due to the low status of the &quot;profession,&quot; its terminology and traditional expectations of the tutor's work such as correction and marking.</td>
<td>Grepperud &amp; Rekkedal (1976)</td>
</tr>
</tbody>
</table>

These findings depict some of the negative side to tutoring. It seems fairly common world-wide to employ part-
time tutors for distance education, and these jobs may be both low in academic status and poorly paid. Tutors rarely are trained for work in distance education. Students may be unhappy with the tutoring they receive.

Most of the studies above have been discussed already; the Graham finding is cited in Rekkedal (1985) and the Grepperud and Rekkedal study is another in the line of research conducted at NKI-skolen.

Table 9f. Dropout Associated with Tutoring

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[3]</td>
<td>The OUUK has a system of tutor-counselors during the foundation year which is extremely efficient. Students are assigned to a local tutor-counselor responsible for both tuition and counseling. This &quot;individual support system&quot; may be &quot;the all important ingredient in the low drop-out rate.&quot;</td>
<td>Sewart (1978, 1980)</td>
</tr>
<tr>
<td>[2]</td>
<td>In a controlled experiment, introducing a personal tutor/counselor in the system of distance education resulted in statistically significant differences. The experimental group had a higher completion rate, were more active in their studies and completed a larger number of study units and courses during the experimental period.</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>Also, the experimental students had a more favorable attitude about the tutor.</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>[1]</td>
<td>At NKI, more than 50% of the experimental students did not initiate contact with the personal tutor/counselor by telephone.</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>The results of the NKI experiment with the personal tutor/counselor show that students prefer this system to traditional distance education.</td>
<td>Rekkedal (1985)</td>
</tr>
</tbody>
</table>
Rekkedal's experiment on the personal tutor/counselor is persuasive about the improvements possible to the educator-learner relationship when a single tutor/counselor is assigned to each student. These findings seem related to work by Willén (1981) and Dahllöf (1986) which suggests that decentralized distance education may allow for better, and more personalized, student support than does a centralized distance education system. The benefits of having a personal tutor/counselor seem congruent with Tinto's findings about intellectual and social integration as preventatives for dropout—the personal tutor/counselor and the student would get to know each other in a wider spectrum of ways over a longer period of time than is the case when the student deals with a number of tutors.

This section on tutoring has presented data that suggest personalized support in the spokes of counselling, relevance and transactional distance help to prevent dropout. This is in line with the theoretical framework which found that the spokes of support are theoretically associated with dropout prevention and increased rates of completion. The following section looks at the learning quadrant in the model of distance education

**C. Dropout Findings Associated with Learning**

Some of the tutoring/counselling data which could be identified distinctly with counselling have been reserved from Table 9 and are displayed in Table 11. These data are
not comprehensive or as focused as they might be, but they do provide some empirical evidence relevant to the theoretical framework of the present study. There is also some research on an aspect of evaluation—turn-around time—and its impact on completion. Unfortunately, not much research has been done on the actual learning activities of distance education students beyond the fact that getting started reduces the chance of dropout. Table 10 summarizes one study's findings about the general connections between dropout and the quadrant of learning in the model of the educator-learner relationship in distance education.

**Table 10. Dropout Associated with Learning in General**

<table>
<thead>
<tr>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2] In a international study on distance education, it was found that the success rate was higher (and non-start rate lower) if there were higher learner-friendliness scores; if at least two media were used for two-way communication; if the counselling service can be reached by telephone on weekends; if the institution attempts to reduce non-start and dropout rates by sending individualized letters or by phone calls to learners; if the institution takes at least two measures to reduce non-start and dropout rates; if the tutors get a salary for full-time employment; if the turn-around time does not exceed 9 days; if the institution encourages the formation of self-help groups.</td>
<td>Graff &amp; Holmberg (1988)</td>
</tr>
</tbody>
</table>
Although Graff and Holmberg's international study suffers from a very low response rate, its editors claim that all the major distance teaching universities replied, and that its results may represent the state of higher distance education world-wide. Their learner-friendliness factor is a compounded variable consisting of items from the survey which indicate provisions for two-way communications, for counselling and tutoring, proactive contacts with students, flexible pacing of course work, and supportive responses to assignments. The striking thing about these findings for increasing the success rate and reducing the non-start rate of learners is that they are almost all connected with enhancing dialogue and increasing intellectual and social integration in the educator-learner relationship.

The following table presents data showing a connection between dropout and counselling.

Table 11. 

Dropout Associated with Counselling

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2]</td>
<td>The area in which student expectations were most unmet was counselling.</td>
<td>Rekkedal (1978/1985)</td>
</tr>
<tr>
<td>[1]</td>
<td>In a study covering 10 years of post graduate level distance education at the Central Institute of English and Foreign Languages, Hyderabad, it was found adequate information about the course had not been available to those who sought admission to the course, and that this fact was associated with a high level (43% non-starters) of early dropout.</td>
<td>Koul (1984a)</td>
</tr>
</tbody>
</table>
Generally speaking, distance educators should try to match students with courses and engage in active counselling of prospective students to make the level of the course and its demands clear. 

Since dropout rate is at its peak at the start of a course, that is the time when intensive counselling and guidance of students must take place. 

Early difficulties are individual student problems, not problems that can be solved by groups of students meeting. Particular students have particular worries. 

With regard to support in getting started, the personal telephone calls and personal letters to the experimental group seemed to impress the students more than the system of form letters sent automatically to follow-up on the control students.

An introductory course in study techniques may, along with an individual follow-up system, result in a lower dropout rate during the initial phases of study.

When the UNA (National Open University) of Venezuela began in 1978, 22.60% of the students in its required Introductory Course were successful. In 1979, 17.89% passed; in 1980, 20.84% passed. Over 75% of the students dropped out. In 1984 at UNA, the retention rate jumped to 60% of the students. The improvement is attributed to an improved student advisory system.

In the perception of older learners in developing countries, age is related to knowledge; adults may be hesitant to ask assistance of younger counselors and advisors.

More and better admissions counselling for new and continuing students, coupled with better course descriptions and sample course materials should reduce dropout.
[3] Students can be taught to understand their changing perceptions as students--i.e., can be socialized to the role of distance education students--thereby reducing attrition due to personal reasons.

The findings from Rekkedal are conclusions based on research at NKI, much of which was experimental in design. Bååth's finding comes from his survey of distance education dropout research, mainly from Northern Europe, the UK, and the USA. Woodley and Parlett's conclusions summarize findings about dropout at the OUUK. Koul's subjects were graduate students from all over India. All these studies have been discussed earlier; their findings can be considered reasonably trustworthy.

Roberts' finding is taken from his article on reducing early dropout; in it, he applies distance education theory to this problem. His conclusions seem reasonable.

The Venezuelan base-line study appears to have been a solid piece of research, although the report of dramatic changes in 1984 is a post-study finding which is neither well-explained nor described in detail in de Freitas and Lynch's article. The remarkable improvement in student retention is most suggestive since it has been attributed to an improved student advisory system, part of the spokes of support which theoretically should help to hold the educator-learner relationship together. Given the lack of documentation around this conclusion, it cannot be viewed as reliable evidence. The finding about older students'
reluctance to seek assistance from younger counselors and advisors derives from their base-line study and can be accepted. It, however, is likely to be a cultural issue.

Herrmann's study is unusual in its use of a conceptual framework drawn from sociology. The limitations to his work (in particular, that his subjects were all male) were discussed earlier; they should not make his finding doubtful.

It seems fair to say that there is evidence from Europe, Australia, India, and possibly from Venezuela, that improved counselling can play a role in reducing distance education dropout. Table 9, in the section on tutoring, includes further information about counselling that is connected with relevance and transactional distance. Counselling also has a role to play in the quadrant of certification.

The following table presents dropout data connected with evaluation.

Table 12.

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>Reduced turn-around time results in more satisfied students. Students who received answers within 5 days were satisfied without exception while 21 out of 59 students who received their papers after more than 7 days found this to be too slow.</td>
</tr>
<tr>
<td></td>
<td>Bååth (1971/ in English in Rekkedal, 1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>At NKI, a faster turn-around time also had a positive effect on the number of assignments submitted in the first 3 study months.</td>
</tr>
</tbody>
</table>
[2] One week seems to be the turn-around time limit accepted by the majority of [Norwegian & Swedish] correspondence students.


[2] In an international study of turn-around times and completion rates at five institutions, no consistent trend was found relating persistence to turn-around time.

[1] CNEC students (France) won 32.7% of all positions in the 1982 CAPES anglais, a post-graduate diploma, in the national examinations and competitions: a highly significant proportion.

[2-3] At UNE (Australia), external and internal students sit the same examination; external students often achieve distinctions and mature, non-matriculants with no qualifications to enter the university often graduate.

There is certainly scope for more research investigating the connection between evaluation and dropout from distance education. It would seem logical to expect that evaluation might influence student perceptions of intellectual and social integration with the college community, but there is scant research bearing on this. No research was found on the consequences for dropout of student participation in evaluation (learners setting evaluation criteria, for example) in distance education, perhaps because it happens rarely. Nor was there work on the kinds of evaluation which support persistence or provoke dropout. Koul (1984a) describes rather shocking discrepancies in marking by untrained distance tutors and makes a strong case for the
need for training of distance educators in general and, in particular, the need to teach them how to write comments. It would be interesting to see if the content and/or tone of comments from tutors was connected with student persistence.

Turn-around time is a limited aspect of evaluation, but it seems to have a demonstrable impact in some, but not all, contexts. It is not surprising that Rekkedal's original, strong, experimental research was not generalizable; his subjects--Norwegian men taking technical and vocational courses--are likely to have different expectations about postal delivery and the accessibility of educators, and different definitions of slowness, than will be found in all settings and subjects. Norway appears to have a quick and reliable postal service, and Norwegian men may expect educators to respond to them promptly.

All adult students sit for the same national government examinations, whether they studied conventionally or at a distance, in France. The situation in France, and in other countries, where the distance teaching institution is not the final evaluator of the students, will have an impact on certification as well as on learning in the educator-learner relationship.

The following table presents data which suggest a connection between learning activities and dropout.
Table 13.

Dropout Associated with Learning Activities

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2]</td>
<td>The amount of time students devoted to study was found to be positively related to their successful course completion.</td>
<td>de Freitas &amp; Lynch (1986)</td>
</tr>
<tr>
<td>[1]</td>
<td>At University of New England, New South Wales, about 35% of each intake of new students is lost each year, but only about 10%-12% of continuing students withdraw or suspend studies each year.</td>
<td>Keegan (1986)</td>
</tr>
<tr>
<td>[1-2]</td>
<td>In a review of many studies carried out from 1929 to 1965, the completion rates of students who started to submit assignments range from 35% to 63%.</td>
<td>NUEA reported in Rekkedal (1985)</td>
</tr>
<tr>
<td>[1]</td>
<td>At the OUUK of the starters, those who sit the exam are about 50%.</td>
<td>McIntosh et al. (1983)</td>
</tr>
<tr>
<td>[2]</td>
<td>For most students, the work to be done in connection with assignments for submission is rated as stimulating.</td>
<td>Rekkedal (1985)</td>
</tr>
<tr>
<td>[2]</td>
<td>In a study covering 10 years of post graduate level distance education at the Central Institute of English and Foreign Languages, Hyderabad, it was found that dropout was not associated with basic qualifications, place of work, rank/status in the professional hierarchy, or previous academic standing (1st, 2nd, 3rd class).</td>
<td>Koul (1984a)</td>
</tr>
<tr>
<td>[2]</td>
<td>Previous level of education did not co-vary with completion in distance education, but it did connect with higher marks and with success in some subjects.</td>
<td>Willén (1981)</td>
</tr>
<tr>
<td>[2]</td>
<td>During the first four semesters at Fernuniversität, success of students is largely dependent on their previous schooling.</td>
<td>Bartels &amp; Peters (1986)</td>
</tr>
</tbody>
</table>
The connections between learning activities and dropout are not yet illuminated. The big hurdle for learners appears to be getting started. It is not surprising that spending more time on study would increase the chance of completion, nor that continuing students are less likely to drop out since they likely have both more skill at study and more invested in completing than do beginning students. Herrmann's concept of "side-bets" makes sense, but it could be culturally limited or more characteristic of men than women.

The impact of previous education is not clear. While their bearing on learning activities is indirect, these findings are included in this section because of the possibility that previous practice at learning activities may increase a student's study skills which may make it easier for the student to complete the course. Koul's (1984) research, like Willén's, found that previous level of education made no difference when it came to completion, but Bartels and Peters found that it made a big difference. All these studies seem well-done, so their contradictory results can be accepted. The facts that Koul's 3828 subjects were all graduate students, that Willén's subjects were enrolled in a decentralized system where personal dialogue was possible
between learners and educators, and that Bartels and Peters' subjects were at the FU with its rigid structure and paucity of student support may go a long way to explaining the contradictions about the impact of previous education on completion.

This section has presented dropout findings associated with the learning quadrant of the model of the educator-learner relationship in distance education. These findings should be considered in conjunction with the previous section on tutoring. Table 9 showed that contacts with counselors and tutors tend to enhance student persistence. Improved and increased dialogue between educators and learners--dealing with educational planning, course content, assignments and study activities, and also allowing for more informal conversation about personal concerns--seems to be associated with lowered dropout in almost every context. This is in line with the theoretical framework's expectation about the importance of the spokes of support and the axle of dialogue. Some possibility for live-interactive or rapid, two-way dialogue either face-to-face or by telephone (or by computer conferencing) may reduce isolation and enhance persistence. Turn-around time seems to have a demonstrable impact in some, but not all, contexts. However, there are holes in the research in this quadrant: almost nothing is known about the actual learning activities of students in distance education, or about exactly how the educator-learner relationship
connects with those learning activities, or about what impact these activities have on dropout or persistence.

D. Dropout Findings Associated with Certification

The present study found less research on certification than on instruction, tutoring and learning. The findings that were located suggest further investigations might discover interesting associations between dropout from distance education and characteristics of the educator-learner relationship to do with certification.

Those studies looking at counselling and evaluation which were reported in the previous two sections of this chapter can be seen as part of the certification quadrant. However, the aspects of counselling and evaluation included in dropout research tend to be more connected with learning than with certification. Turn-around time has little bearing on certification, nor do measures to encourage a student to begin studying. Perhaps the aspect of counselling that involves providing information about the content and demands of courses can be seen as part of certification.

Table 14.
Dropout Associated with Certification

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[1] Half credit courses produced higher wastage rates (38%) at the OUUK than did full credit ones (28%). This difference was found in each faculty but was most marked in Technology, Arts and Mathematics.</td>
<td>Woodley &amp; Parlett (1983)</td>
</tr>
</tbody>
</table>
Selection of the UNA as first choice of enrollment was the strongest predictor of successful persistence. So, UNA developed a program to improve its social credibility and offer a wide option of degree programs to its potential clientele.

In a study covering 10 years of post graduate level distance education at the Central Institute of English and Foreign Languages, Hyderabad, it was found that geographical location had a direct bearing on dropout rates. Students from states which provided incentives for course completion (paid leave; English as a second language rather than a third language so a certificate in teaching English became more valuable) were far more likely to complete.

For external students, the institution's socializing role is based in that institution's authority to accredit students through its courses. Thus, increased commitment to study is enhanced by the student's perception of the value of that credit.

The four studies cited above have all been discussed previously. Herrmann's observation seems logical but it is not clear how he arrived at this conclusion. The OUUK's findings about dropout from half-credit courses seems at least indirectly associated with certification, suggesting that the amount of credit earned for coursework matters to students. This seems a practical kind of reaction.

The finding from de Freitas and Lynch about the connection between persistence and students making UNA their first choice is an interesting result of their study. Their
article does not explain what the UNA did to improve its social credibility.

Koul's finding is perhaps the primary result from his study: "the learner-based variables of age, sex, basic qualifications, place of work, and rank/status in professional hierarchy did not seem to have any bearing on the tendency of dropping out of this course" (Koul, 1984, p. 3). The state language policy and its impact on the qualification being earned by the students in the course "may be responsible, to some extent, for the variations in the profile of dropout rates presented by the various states" (Koul, 1984, p. 3). This finding seems connected with the fact that course completion rates at the OLA are consistently high (80% to 100%) for programs like dental assisting or nursing upgrade where the students are earning a certification that increases their status professionally and improves their circumstances in the job market. There are other factors which contribute to the low dropout rates in these programs, but the practicality of the certification seems important.

Very little distance education dropout research found in the present study addresses the issues of access and of social equity in connection with certification. Since this is an area shared with the quadrant of openness, findings which have at least some connection with access and social equity are displayed in Table 15 in the following section.
E. Dropout Findings Associated with Openness

There are demographic statistics about the students who take distance education, and some studies have looked at issues of access to distance education and the degree of social equity involved with its provision. However, this appears to be a less developed area of distance education dropout research and the findings do not connect access to distance education, or social equity in its provision, with dropout. The table below displays some descriptive findings that relate more to participation in distance education than to dropout.

The quadrant of openness was also relatively short of findings that connect transactional distance and course structure—openness in the terms of Lewis's (1989) table of open and closed courses—with dropout.

Indeed, this quadrant of the model of the educator-learner relationship in distance education was not a focus for research located through the present study..

Table 15.
Participation Associated with Openness

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2-3]</td>
<td>The UNA does not offer any rural-related degree programs. It sponsors traditional courses and a common or standard degree program. More flexible programs designed to meet the specific needs of an adult nontraditional clientele are necessary for the benefit of its potential nationwide clientele.</td>
</tr>
</tbody>
</table>
The typical UNA Introductory Course student was found to be from the urban middle class, employed full-time in white-collar work, typically the first generation participant in a postsecondary study program. However, 72.4% had some previous traditional postsecondary education and 27.6% had graduated from a higher education program.

People who already have a relatively high formal education are overrepresented among adult students.

The typical distance education student is a hard working, highly motivated social climber, aiming at a good career. Most often, this student is male.

In an international study on distance education, it was found that the widening of educational services to include new groups is the most important goal of the organizations studied.

Distance education, because of its emphasis on individualism, appeals more to learners who want to escape from their social environment than to people who want to bring their environment with them.

Highly structured instruction tends to exclude learners investigating areas of personal significance and the interrelationship of social experiences, themes and motives.

These findings come from a variety of sources, most of which have already been discussed. The van Enckevort comments seem logical and are not contradicted by other findings, but they are not substantiated by references to particular research. The de Freitas and Lynch observations are not all
connected with statistics or other empirical data although they appear to be results and conclusions of their analysis of provisional students at the UNA taking—and dropping out from—the mandatory introductory course.

The dynamic between barriers to participation and dropout is not clear, although it might be surmised that characteristics of the educator-learner relationship which function as barriers will also be associated with dropout. Thus, if most distance education students are middle class, students from a lower socio-economic class may find that their perspectives, interests and needs are less well-supported.

Goodridge and Layne (1984) consider academic persistence in the context of democratization of adult education and higher education. In their digest of UNESCO studies, Goodridge and Layne uphold the ideal of adult education which urges educators to devise programs which connect with students' interests; raise the consciousness of staff and students about social issues; develop skills and abilities needed by students to seek employment; make students aware of community needs; and promote educational articulation between countries.

High percentages of "wastage" may raise the fear that the "open door" to education is really a "revolving door" which rapidly returns disadvantaged students to the outside. Harris (1987) used critical theory to analyze openness and closure
in distance education (focussing on the OUUK) and, while doing so, saw dropout in terms of social class conflict.

This is reminiscent of Perraton's question about whether education increases social equity (1987). Rubenson (1986) has argued:

...an 'adult education' that takes for granted that the adult is a conscious, self-directed individual in possession of the instruments vital to making use of the available possibilities for adult education and that relies on self-selection to recruit the participants, will help to widen, not narrow, the educational and cultural gaps in society. (p. 54)

Overall, the present study has not discovered characteristics of the educator-learner relationship in the quadrant of openness to be associated with dropout in the research literature. This may have more to do with the focus of distance education dropout research so far than with the underlying connection between openness and dropout.

Table 15 concludes the circuit of the quadrants of the proposed model of the educator-learner relationship in distance education. In order to summarize and interpret the findings of this investigation, the next three sections of the chapter will discuss evidence that dropout is associated with the axle of dialogue, the spokes of support, and the rim of independence. These discussions will, in effect, answer the second research question: "What characteristics of the educator-learner relationship are associated with dropout?" The following section considers connections between dialogue and dropout.
F. Overview: Dropout Associated with the Axle of Dialogue

After presenting dropout findings associated with different parts of the proposed model of the educator-learner relationship in distance education, the next step is to summarize the distribution and content of these findings as they occur throughout the model.

If all the findings were plotted in a scatter diagram across the model, they would be densest in the central area around the axle of dialogue. The importance of dialogue between educator and learner in the reduction of dropout does seem to be evident from the dropout research in distance education. This fits in with Tinto's dropout theory and the importance he attributed to intellectual and social integration of students with the college community. Such integration hinges on dialogue; this is true for distance education as well as for face-to-face modes.

The more frequent and rewarding those contacts, especially when they go beyond the requirements of academic work, the greater the likelihood of persistence and high levels of individual growth. (Tinto, 1985, p. 37)

The emphasis on dialogue as a preventative for dropout is also supportive of Keegan's (1986) hypothesis about the need for reintegration of the teaching and learning acts in distance education in order to reduce dropout. It gives us scant information, however, about the issue of bridging the gap between the college community and external communities.
Indeed, it leaves many questions unanswered about the content, style, medium for, and timing of that dialogue and of the sorts of integration or re-integration it might provide. The questions raised in Chapter IV about the axle of dialogue remain unanswered by the research on dropout in distance education.

When it comes to virtual dialogue, or the engagement of the learner with the written text, Holmberg's (1983) prescription for personalizing educator-learner communications in his discussion of guided didactic conversation seem designed to foster the intellectual engagement of the learner with the relevance of the content. Not all distance education materials are composed with such guidelines in mind.

A risk in working with course teams and also with the majority of university professors is that they tend towards a style of writing which suggests that a kind of an anonymous authority is telling objective truth or is transmitting indisputable knowledge and research results. Despite the sections in books and courses which contain "points for discussion" and sometimes even introduce the course writers as persons, the total style of most of them does not encourage any discussion at all. (van Enckevort, 1986)

The dropout literature surveyed has not told us if fostering virtual dialogue is as important in the educator-learner relationship as providing opportunities for immediate contiguous dialogue. Findings about the impact of television on students are intriguing. Perhaps research on television and the educator-learner relationship might provide a clearer
understanding about the importance of seeing as well as hearing and/or reading in an educational dialogue.

The present study found little information about how learners use mediated instruction in distance education, and even less of how different kinds of virtual or spoken dialogue which may be involved with an individual's learning activities might be associated with dropout. Marton et al's (1984) research on the experience of learning demonstrates that it is possible to investigate this area more completely.

There is a suggestion that the educator's communication style should be engaging, relaxed, responsive, and varied in vocal tone (Hackman & Walker, 1990). No parallel information was found about the effect of the learner's communication style on the educator. There is some evidence supporting Holmberg's empathy theory (1988) as a basic guide to teaching in distance education, and there is also some evidence that suggests dialogue that is nonjudgmental—that is associated with study support rather than with learning assessment—is associated with persistence (Graff & Holmberg, 1988). This seems congruent with findings about the importance of informal interactions with faculty outside of the classroom in preventing dropout from residential colleges (Tinto, 1987).

The possibility of dialogue within a group of students has been ignored in the present study since the focus here is on the educator-learner relationship. But, dialogue among learners also seems to be valuable in reducing dropout, and
one of the reasons for the positive impact of summer schools (Woodley & Parlett, 1983) and teleconferencing (Garrison, 1987) on completion rates could be the opportunity for dialogue amongst a group of students provided by these activities. Again, this seems in keeping with Tinto's research. An unsettled question has to do with the advantages and disadvantages of required summer schools, or other such face-to-face sessions, as preventative s for dropout. The added cost and rigidity in timing of these sessions may stop learners from attending them, though they doubtless foster greater intellectual and social integration with the educational community amongst those who do attend.

Although providing opportunities for real and virtual empathetic dialogue between educators and learners in distance education courses may not reduce the overall dropout rates dramatically—since most dropout is not attributed to factors within the educator-learner relationship—research indicates that it does encourage persistence. The theoretical framework developed earlier in this chapter would take that finding even farther: it would place the educator-learner relationship in distance education at the core of the dropout problem, and it would situate dialogue at the centre of the educator-learner relationship. The research data in the present study do not confirm this expectation, but then again, the research done so far was not designed to investigate perceptions about the educator-learner relationship.
G. Overview: Dropout Associated with the Spokes of Support

If a scatter diagram showed dropout findings as densest around the axle of dialogue, it would also show findings radiating from that centre along three of the four spokes of support. The spoke of counselling would have the most findings associated with it. Relevance would also carry findings and some would appear on transactional distance, but these latter two spokes of support would generally be subsumed by the category of tutoring, which does not appear per se on the model, and so tutoring findings would spatter across the quadrants of instruction and learning in a less localized fashion. The present study did not locate findings on the spoke of social equity; dialogue between educators and those communities in which learners already have membership does not seem to have been investigated as having a potential for influence on dropout or persistence. We did not discover if student perceptions about the fairness with which they have been treated in their access to certification, in the openness of education to them, or in the possibilities for them to achieve intellectual and social integration within the educational community, have an impact on the formation of students' commitments to persist or their decisions to drop out.

Connections between dropout research and the model of educator-learner relationships in distance education are
imperfect. This is understandable, and it does not mean that associations could not be made.

In general, the theoretical framework would suggest that the spokes of support would be the most important areas in the model of the educator-learner relationship in distance education when it comes to reducing dropout. This expectation is not fully supported by the dropout research, but it is not contradicted by it, either. One way to think about the situation is to consider the density of findings around the axle of dialogue as being potentially associated with different spokes of support. The data in this study have not differentiated these dynamics, one from another.

**H. Overview: Dropout Associated with the Rim of Independence**

The scatter diagram, which would show dropout findings converging on the axle of dialogue and spattered across the quadrants of instruction and learning with a concentration along the counselling spoke, would also show some findings on the rim of independence. These would mainly be in the areas of mediated presentation, content, evaluation, and certification—with some findings in the region of structure. Areas of the rim which did not have dropout findings associated with them here may well also have an influence on student persistence.

Although the theoretical framework of the present study would suggest that increased dialogue along the spokes of
support in the educator-learner relationship in distance education would do the most to reduce dropout, this expectation may disregard the importance of characteristics on the rim of independence. Koul's (1984a) and de Freitas and Lynch's (1986) findings about certification, Rekkedal's (1985) experiments with turn-around-time in evaluation, Chacon-Duque's (1985) and Woodley & Parlett's (1983) findings about the impact of difficult and easy course content, and various findings about the negative impact of rigid course structure are examples of how issues located on the rim of independence are influential in dropout decisions.

The rim of independence describes the kind of relationship an educator and a learner might have in distance education if their engagement in dialogue was always virtual or mediated and typically concerned only with evaluation. This is, in fact, the experience of many—if not most—educators and learners in distance education and it is only logical to recognize that its characteristics affect students' decisions to drop out. Perhaps it is necessary to remember that most distance education students are busy adults who may not seek integration with an educational community or desire new social interactions in their lives. They may choose to participate on the rim of independence so long as that is sufficient to meet their intellectual needs as learners. When they have to learn course content generally found difficult (Calculus at the OUUK, for instance), the value of tutorial support rises.
Given greater dialogue and heightened interactions along the spokes of support, the nature of the rim of independence could be modified to create a better fit between the learner's needs and the educator's provisions. The rim of independence is attached to the spokes of support and revolves around the axle of dialogue; the purpose of that axle of dialogue is to move the rim of independence and the purpose of the spokes is to support that rim—the elements of the educator-learner relationship are dynamically integrated and cannot be fully understood apart from one another.

6. Answering the Second Research Question

The major conclusion to be drawn from Chapter V can be stated simply: increased dialogue along the spokes of support in the quadrants of instruction and learning in the educator-learner relationship in distance education may reduce dropout.

The model of the educator-learner relationship and Tinto's dropout theory both emphasize the importance of dialogue (see pp. 133-145). Combining their perspectives, dialogue along the spokes of support may facilitate intellectual and social integration in the educator-learner relationship. Intellectual integration could be seen as involving primarily the quadrants of instruction and learning. Social integration might be seen as involving the
quadrants of certification and of openness. As was predicted in the summary of the theoretical framework associated with dropout and with the model of the educator-learner relationship in distance education (pp. 146-148), the core elements of the model—in those areas where research has been done—do seem to affect learners' decisions to drop out of distance education (see pp. 196-202). It is interesting that nothing in the dropout literature contradicts the model's implied perspective, although there are large gaps in what we know.

The possible influence of the quadrants of openness and certification on dropout decisions has not been clarified here. Although the spoke of counselling and the area of evaluation are associated with dropout, these are elements of the model which belong to the quadrant of learning as well as to the quadrant of certification. A few findings do associate dropout with certification, suggesting that persistence is enhanced where the certification earned leads to improved circumstances in the job market, or where the social credibility of the institution has been improved (see pp. 189-192). The discussion of access and the spoke of social equity points out that little dropout research was found in this area (see pp. 192-195). Some dropout research was discovered that involves the quadrant of openness along the spoke of transactional distance and in the area of structure, which it shares with the quadrant of instruction (see pp. 163-166). The scarcity of research discovered in the present
study to connect these parts of the model—perhaps associated with social integration—with dropout does not mean that openness, access and the spoke of social equity have no impact on student decisions to drop out. It does suggest that we do not yet know a lot about their associations with dropout or persistence in distance education.

Improving the overall educator-learner relationship to reduce dropout would connect with the perception that dropout has multiple causes (see pp. 129-132) and with the argument that the educator-learner relationship in distance education is a "live" system with interdependent parts. The fact that there are findings connecting dropout to areas on the rim of independence suggest that the educator-learner relationship may have an impact on learner persistence as an "organic" whole rather than only in its parts.

Some, and it is hard to know how many, educator-learner relationships in distance education do occur primarily on the rim of independence. Moore (1983a) has long argued that the distant student is an independent learner (see pp. 52-53 and pp. 61-62). The distant educator may be equally independent—may prepare course materials without being involved with their delivery. This independence agrees with Peters (1983) "mini-theory" of distance education being the most industrialized form of education, leading to "rationalization" of the teaching processes, and to the advantages born from the resultant objectification of the educator-learner relationship (see pp. 45-47 in Chapter III).
However, Tinto's dropout theory, with its emphasis on the intellectual and social integration of the learner within the college community as the critical factor in the student's decision to persist or to drop out (see pp. 138-140), puts a large question mark against circumstances where the educator-learner relationship exists almost entirely on the rim of independence. Indeed, Tinto's model of departure from higher education brings to mind the doubt voiced in the introduction of the present study—does distance education have so many dropouts because the teacher is not present for the students? This would also be suggested by Keegan's hypothesis that distance education students who experience a weak integration into the academic community, where the teaching and the learning acts have not been re-integrated, have a tendency to drop out (see pp. 140-141). As well, Holmberg's "empathy theory" or teaching theory (see pp. 49-50) proposes that communication—simulated, mediated or face-to-face—between the educator and the learner is crucial to successful distance education. This theory is quoted again below in the expectation that its elements now may seem more interesting (perhaps, less like home truths) after the arguments presented so far in this study.

Distance teaching will support student motivation, promote learning pleasure and effectiveness if offered in a way felt to make the study relevant to the individual learner and his/her needs, creating feelings of rapport between the learner and the distance education institution (its tutors, counselors, etc.), facilitating access to course content, engaging the learner in activities, discussions, and
decisions, and generally catering for helpful real and simulated communication to and from the learner. (Holmberg, 1986, p. 36)

The issue of gradations of immediacy in dialogue—the relative effectiveness of simulated, mediated and face-to-face communication as a means to achieve empathy—is an area where more information would be helpful. Obviously, presence need not mean face-to-face contact, and the degree of presence may have more to do with the overall educator-learner relationship: with its responsiveness, relevance, individuation, and general supportiveness, than it has to do with whether the educator and the learner correspond, talk on the telephone, meet face-to-face, or send messages back and forth via computers. Some of the research on the effect of television (see pp. 160-162) suggests that a visual and kinetic image of the educator may help to create a sense of presence. Research findings from quite a wide variety of settings discussed in Chapter V (see, especially, the section on tutoring pp. 167-178) suggest that increasing the frequency of dialogue, increasing the familiarity of learner and educator with each other, and increasing the immediacy of their interactions (turn-around time) may reduce dropout. Rekkedal's (1985) experiment indicates that—for the NKI-skolen students in the study—having a personal tutor/counsellor and a faster turn-around time significantly increased their persistence. This agrees with the theoretical framework based on Tinto's model, and it fits with the model of the educator-learner relationship in distance education.
By making the educator-learner relationship in distance education responsive to individuals, institutions support the independence of their learners. Dialogue not only allows educator and learner to know each other in a joint educational venture—dialogue is also the vehicle for reshaping educational offerings which are generalized (or, to use Peters' term, objectified) so that they correspond more subjectively (again using Peters' term) with the learner, and thus facilitate continued independent study. Transactional distance names one aspect of this function (modifying course structure), but similar negotiations are part of relevance (personalizing content), counselling (empowering by interpreting and applying evaluations of learners and their opportunities), and social equity (assuring equal access to education). These supportive dialogues adjust the most industrialized form of education to the learner: they are the tailor shop where openness has its final fitting, the optometrist's office where mediated presentations are ground and polished, the fitness club where coaches oversee learning activities, the travel agent where certifications are selected and packaged.

Certainly, at one level, the independent learner does become a consumer of educational products and services which the educator manufactures and offers in a more-or-less competitive market. But, most distance education is not a profit-making venture (private companies selling ring-binder books on how to make a million in real estate and mail-order
degree mills typically do not involve the learner in a relationship with the educator and so are not educational). Public distance education, funded from the same government coffers as campus-based education, has educational rather than commercial aims. This is an important distinction, and it bears directly upon the evaluation of dropout from distance education. Perraton's discussion of evaluation in distance education and his value-based questions—does it lead to open-minded enquiry and not merely rote learning and sometimes examination success? and does it increase or decrease social equity? (1987, pp. 22-23; see pp. 49-50)—remind us that evaluation of education should not be based on dropout statistics.

Distance education is not crass because it has left the campus to share the social position of store fronts and kitchen tables, but it does encounter learners there who have not intellectually or emotionally differentiated the realities of study from other elements in their confusion of desires, anxieties, antagonisms, and realizations. The fact that distance education often does not appear to require the same kind of commitment and risk as does campus-based education may make it especially attractive to learners who want something more but are not sure what that is, what disciplines study entails, or what changes they are willing to make in their lives. Part-time students on campus may be in a similar state; for that matter, so may full-time students. One irony is that distance education may, in
reality, require more commitment and greater clarity of personal motivation than does intra-mural education. But, these inexperienced or uncommitted learners may benefit from more accessible education even if they do not complete their courses or stick with their programs. The process through which individuals acquire the ability to differentiate a long range educational goal from more immediate pressures, select a program of study, and elect to change their lives in the ways necessary to follow a particular discipline may include sampling and rejecting a number of subjects and educational modes.

The apparent similarities between dropout rates from distance education and from other modes of education (see pp. 123-124) suggest that whatever causes dropout, those causes are not unique to distance education. Indeed, the research on dropout from distance education thus far is adamant about the causes of dropout being associated more with circumstances beyond the control of the teaching institution than with the educator-learner relationship. Despite this, the present study has found considerable evidence that the educator-learner relationship does affect persistence and dropout in distance education, just as it has been shown to do in higher education. The fact that dropout from distance education seems to be fairly similar in quantity—and, perhaps also in causes--to dropout from face-to-face modes of higher education and adult education should reduce the feeling that distance education is the runt of the litter of educational
modes, and emphasize the fact that there can be effective presence at a distance.

Thus, the answer to the second research question: **What characteristics of the educator-learner relationship in distance education are associated with dropout?** is that research to date indicates the axle of dialogue is clearly associated with dropout as are the spokes of counselling and relevance. As well, the entire quadrants of instruction and learning, including the spoke of transactional distance and the areas of structure, mediated presentation, content, learning activities and evaluation have associations with dropout. Other areas of the model of the educator-learner relationship, especially certification, may also be associated with dropout, though the present study has not located research about the connection of social equity, access, and openness with dropout.

Basically, what this means is that dropout can be reduced by increasing the intellectual (and, possibly, the social) integration of the educator and the learner in distance education through the use of supportive dialogue to personalize the educator-learner relationship.

In saying this, it is important to remember that the second research question is not seeking an explanation for dropout from distance education; its focus is limited to dropout behaviour associated with the educator-learner relationship in distance education—-with those factors which may be altered by the teaching institution. Thus, improving
the educator-learner relationship in distance education is likely to reduce dropout (perhaps by a significant amount), but it will not prevent that greater amount of dropout which appears to be caused by factors beyond the influence of the educator-learner relationship.

7. Summary

Chapter V has answered the second research question: What characteristics of the educator-learner relationship in distance education are associated with dropout? It provided theoretical background for understanding dropout from distance education, and then screened distance education dropout literature through the model of the educator-learner relationship developed in Chapter IV.

The chapter began with a review of dropout from distance education in general. It described the difficulty of defining dropout in distance education and the range of dropout rates. The multi-causal nature of dropout was identified. Most dropout is not attributed to elements in the educator-learner relationship, perhaps because most previous research has sought to identify learner characteristics or institutional characteristics connected with dropout. The present study is unusual in its interest in the educator-learner relationship in distance education as a factor in dropout decisions. The second research question does not attempt to explain all
dropout from distance education; it focuses on dropout associated with characteristics of the educator-learner relationship which are potentially alterable by the teaching institution.

Tinto's theoretical work on dropout from higher education was described and its connections with the present study highlighted. This led to a theoretical framework about dropout that relates to the model of educator-learner relationships in distance education.

Limitations of the literature on dropout in distance education were described. That research was then filtered through the proposed model of the educator-learner relationship in distance education. Much of Chapter V consists of tables presenting these data. The results were discussed in connection with the sources and quality of the data, the elements of the model, and the predictions of the theoretical framework. The chapter concluded with an overview of dropout data associated with the axle of dialogue, the spokes of support, and the rim of independence in the model of educator-learner relationships in distance education. Dropout research in distance education confirmed the expectation of the theoretical framework that dialogue along the spokes of support decreases the likelihood of dropout.

Chapter VI, following, discusses implications of the present study for practice and further research.
Chapter VI brings the present study to a close by integrating its major results and drawing conclusions about their implications. It recapitulates the problems the research questions address, reviews the major findings, and discusses the attempt in this study to link scholarship with practice. Using the model as a generative tool, it proposes a research agenda that expands to include suggestions for development and practice. It concludes with a discussion of presence at a distance.

1. Recapitulation

The purpose of the present study was to provide an understanding of the educator-learner relationship in distance education and then to identify and discuss parts of that relationship associated with dropout.

An assumption underlay this work: education, at a distance or face-to-face, involves an educator-learner relationship.
The first research question was: what characterizes educator-learner relationships in distance education? In answer to it, the educator-learner relationship in distance education was conceptualized as a wheel with an axle of dialogue, spokes of support, and a rim of independence.

Concern among those who work in distance education over high attrition rates led to the second part of the study's purpose and the second research question: what characteristics of the educator-learner relationship in distance education are associated with dropout? In answer to this question, findings from the dropout literature associated with the model of the educator-learner relationship in distance education indicated that perceived deficiencies in dialogue, especially deficiencies associated with the spokes of support in the quadrants of instruction and learning, may have an impact on dropout behaviour.

There were three justifications for undertaking this study: to illuminate the educator-learner relationship, to contribute to research on dropout in distance education, and to foster integration between practice and scholarship in the field. The first two objectives have been met. The third objective influenced the research design and has been a concern throughout, but it has yet to be addressed directly. Chapter VI is therefore particularly concerned with fostering the integration of scholarship with practice.
2. Linking Scholarship with Practice

Calvert's (1988) paper identifying the split between scholarship and practice as the most important problem currently facing distance education was not only the keynote address on research at the ICDE's 14th World Conference, it also later won a prize\textsuperscript{2} for being the best paper on distance education published that year. Calvert urged distance education scholarship to bring together "diverse 'mini-theories' which have evolved largely in isolation from one another" and relate these to the "concrete experiences of distance education practice." (p. 7). Her prescription influenced the design of the present study.

The mini-theories Calvert spoke of were to be found in scholarly literature; this study began by turning to that data when looking for an answer to the first research question. A definition of distance education—Keegan's (1980; 1986)—was selected and research that illuminated its elements was presented. Relevant mini-theories were outlined. These included Peters' (1983) theory of an industrialized form of education, Holmberg's (1986b) theory of didactic conversation and empathy, Perraton's (1987) theoretical work on three interrelated systems in distance education, and Moore's (1977, 1983a) theory of telemathic education and his

\textsuperscript{2} The Elizabeth Powell Award, Independent Study Division of the National University Continuing Education Association (NUCEA).
typology of educational programs. Theoretical work by other scholars in the field was also presented.

The findings of this investigation were synthesized into a conceptual framework about educator-learner relationships in distance education; this framework provided the content for the proposed model, which was further elaborated through the presentation of relevant distance education research. Thus, in answering the first research question, the present study brought together rather isolated pieces of scholarship from the field of distance education, and integrated these with diverse mini-theories. This part of the study responded to the first half of Calvert's prescription.

Even at this level—the integration of scholarship—there are concrete and practical applications for the research. Describing the educator-learner relationship in distance education has the practical value of drawing attention to it and illustrating its centrality.

The seduction of technology, combined with the art involved in making course materials, occasionally so captures the imagination of distance educators that they may not recognize that their creative efforts fail to facilitate complete and appropriate educator-learner relationships. Distance, and its resultant isolation of educators and learners, affects the work of educators as well as that of learners. Even distance educators who also teach students face-to-face may not fully recognize the needs of distance learners. The model is no substitute for educator-learner
dialogue, but it may help practitioners conceptualize what they are supposed to be doing.

It also offers a tool for evaluating different forms of distance education. Evaluation is an especially difficult challenge in a field where there is so little substantiated theory. Because this model is based on the integration of a number of different mini-theories, it might be seen as representing the current state of wisdom—if not of knowledge—in distance education.

And, by showing how learner independence and the learner's need for educational support go together, the model may release practitioners from an either-or perspective about the independence of their students. This could have an impact on educational design.

Thus, the model itself implies an answer to the general problem of how to improve educator-learner relationships because it illustrates the characteristics of a complete educator-learner relationship in distance education. That general problem, however, was addressed more explicitly by the second research question's focus on characteristics of the educator-learner relationship in distance education that have been associated with dropout.

The second stage of the present study, involving the use of the model of the educator-learner relationship in distance education to screen findings about dropout from distance education, answered the second research question. It also began the process of relating the integrated mini-theories to
a common, and concrete, experience of distance education practice—the second half of Calvert's prescription.

Since dropout has been a preoccupation shared by both scholarship and practice in distance education, it seemed important to consult the existing discourse of dropout in distance education and assimilate what that had to say in response to the second research question, if only to inform future discussions with what had already been discovered. It also seemed important to reflect upon the general phenomenon of dropout. Tinto's (1987) theory of dropout from higher education provided a basic understanding.

Empirical research findings associating characteristics of the educator-learner relationship with dropout were somewhat rare. The underlying difficulty in the second part of the present study arose from the fact that connections were looked for between an abstraction (the model) and a literature which was not composed with that abstraction in mind. Indeed, the literature is itself an abstraction which only more-or-less suggests "the concrete experience of distance education practice" (Calvert, 1988, p. 7).

In the present study, identifying the intersections between dropout literature and the model of the educator-learner relationship resulted in recommendations about how to reduce dropout in distance education. These may help practitioners exercise more control over dropout. But, in order to fully complete the process suggested by Calvert's prescription, research needs to be done which begins with the
model of the educator-learner relationship and applies it in investigations of student retention in a variety of distance education settings.

The next section outlines an agenda for research—including research on dropout—inferred from the model of the educator-learner relationship in distance education.

3. The Model as a Generative Tool for Research

The present study's purpose and the first research question were an obvious beginning for an investigation of the educator-learner relationship in distance education. The model was assembled from, and illustrates, a theoretical understanding of the characteristics of that relationship—of its structure and nature. Now, it would be logical to ask about the actual effects of the educator-learner relationship in distance education practice. In what way is it essential to education? How similar is this relationship in distance education to the parallel relationship in face-to-face education?

To complement the present study and test the model in practice, the educator-learner relationship in distance education could be approached from a psychological perspective. What psychological processes occur in a complete educator-learner relationship? How does the educational relationship differ from, for example, the therapeutic
relationship between analyst and analysand, or the contractual relationship between employer and employee, or the familial relationship between parent and child? Moving around the model, what actually goes on between educators and learners at a distance from each other? Does the model of the educator-learner relationship in distance education need to be modified to accommodate findings from research into the psychological processes it represents?

The model's parts roll as a wheel and carry motion from axle through spokes to the circling rim. The educator is often a composite, an institution, and so the educator-learner relationship in distance education is frequently between a group and an individual. The learner is also a member of groups which may have an influence on the educational relationship. Studying may be done with a class of fellow students, or in a workplace or family setting. It would be helpful to analyze educator-learner relationships in distance education from a sociological perspective.

How do the components of the model interact? How do they behave in centralized and in decentralized systems of practice--ie., with a composite educator or with a (more or less) single educator? Likewise, what happens to the educator-learner relationship in distance education when the learner has a group of classmates? How is the educator-learner relationship in distance education affected by culture, class and gender? How well does the model fit and work in a variety of settings? What does the model suggest as
desirable changes to practice in these different settings? Does the model need to be modified to accommodate a better understanding from a sociological perspective of the educator-learner relationship in distance education?

A more philosophical question emerging from this study has to do with what constitutes presence between educators and learners in distance education. Is presence a given in any human relationship, however distant and cursory? One of the mini-theories contributing to this study is Holmberg's teaching or empathy theory. Is the kind of presence needed in an educator-learner relationship specifically empathetic? In the model, presence is conveyed by dialogue through the spokes of support, but it may also be found in the area of mediated presentation. How is presence transferred via mediatethrough the abstraction of language, written or spoken, the images of photograph or television? These questions may turn out to be variations on the psychological and sociological questions posed above.

The elements of the model--axle of dialogue, spokes of support, and rim of independence--each suggest areas for research. The present study has, in several places (for example, p. 115 and pp. 203-210), raised questions about the axle of dialogue. There are issues concerning the impact, on the educator and learner involved, of a dialogue's content, tone, immediacy, vehicle, frequency--questions about simulated, mediated, direct dialogue; about virtual and real dialogue.
Considerable research already exists on the appropriate use of media in distance education: how does a better understanding of dialogue in the educator-learner relationship in distance education affect media choice and its effective use? How can print (which is usually the basic medium) be best made to support dialogue in the educator-learner relationship in distance education?

For which learners does the opportunity to have an ongoing (face-to-face or mediated) dialogue with one personal tutor-counselor or mentor throughout a program of distance education make a significant contribution to their persistence with study? And conversely, for which learners is this unimportant? Does real, face-to-face dialogue within a group of learners reduce or eliminate the need for the more immediate kinds of dialogue between educator and learner?

An area of particular interest, as distance education expands throughout the world and provides access to education to a wide variety of people, was mentioned above: how do cultural, class, and gender differences between educators and learners affect the educational dialogue? Are there any guidelines emerging from a study of the educator-learner relationship in distance education for: adapting or adopting course materials, employing tutors or counselors, delivering courses to individuals or to groups, using learning centres, initiating and sustaining dialogues about access and certification? These questions rapidly move us into considerations associated with the spokes of support.
Dialogue moves along the spokes of support to areas on the rim of independence. Counselling, social equity, transactional distance and relevance are the four spokes delineated in the model. Dialogue concerning evaluation (of personal attributes, previous accomplishments, skills, interests and needs leading to the selection of appropriate educational opportunities and the design or revision of an educational plan, plus the more formal evaluation of learning during or after a course of study) flows between educator and learner in counselling; dialogue about content flows through the spoke of relevance. These two spokes can be connected with dropout research on tutoring that indicates such support has an effect on student persistence.

It is easy to see counselling and relevance as ways of creating presence at a distance, and there are any number of questions linking these spokes to issues in actual practice. Does the delivery of A.B.E. courses through a learning centre, where a local tutor/counselor is a reliable presence who facilitates social integration within that educational community, necessarily increase persistence in educator-learner relationships where there is commonly a high risk of dropout? Does presence for adult literacy students mean a one-on-one, face-to-face form of tutoring that immediately establishes relevance, even when watching videos? Does the itinerant mentor-counselor who periodically visits a case load of learners in their home settings, and follows a learner over several years through a distance education
program, contribute significantly to the persistence and success of those learners by helping them assess their learning programs and goals? Does the success of educator-learner relationships in upper level university courses with a heavy reading load depend upon an efficient mix of counselling around evaluation, and dialogue about relevance sustained through student essays and tutor-comments, provided by attentive, quick and personalized marking of assignments?

Less attention appears to have been paid to, and less research was found dealing directly with, the two other spokes of support—transactional distance and social equity. A question for future research would be: are all the spokes of support equally valuable in creating presence at a distance, or in sustaining the educator-learner relationship in distance education? Similarly, it would be interesting to examine the effect of one spoke on the others. Logic would suggest that dialogue along one spoke of support may enhance (or deter) effective dialogue elsewhere in the educator-learner relationship.

Transactional distance, which functions in the quadrants of instruction and of openness, deserves more attention. At the moment, it seems to disappear into the general category of tutoring. Research could investigate the effect of dialogue along this spoke in the creation of more appropriate structures for individual learners, both in terms of specific modifications to course structure and also in terms of the
more general openness and flexibility of educational offerings.

Statements of a rather philosophical nature about the mandate or mission of distance education to democratize education have claimed the territory of social equity as part of the educator-learner relationship in distance education. Social equity functions in the quadrant of certification and also in the quadrant of openness. It has to do with dialogues between the teaching institution and the communities it serves as well as between individual educators and learners. If distance education is to meet the goal of democratizing education, a good beginning might be research in the area of social equity.

Dialogues about social equity might occur at almost any point in a course of study, not just as a prelude to registration: learners and also educators may feel unfairly treated, ignored, isolated, misunderstood—they may feel that the other is closed in attitude, prejudiced, and hurtful in behaviour. How are these issues best dealt with at a distance?

This spoke does not have to be reduced to a complaint line; this part of the educator-learner relationship in distance education could become an exciting area for exploration and creative adaptation. Research here could be empirical--documenting circumstances--and ethnographic--providing a thick, narrative and interpretive study of selected cases.
The emphasis on dialogue in the model is not to be seen as a dismissal of the characteristics of the educator-learner relationship which form the rim of independence. The dialogue between educators and learners is about those elements—is, in particular, about adapting them to the individual student. Without a strong rim, and without the capacity for personalizing and modifying that rim through the spokes of support, there is not much to be gained by dialogue.

The rim of independence rolls through access, openness, structure, mediated presentation, content, learning activities, evaluation, and certification. Distance education is sometimes called independent study, a term which reflects the fact that, for many educators and learners, there is scant opportunity for real dialogue in distance education. However, even on the rim of independence, there can be an educator-learner relationship. The dialogue may be virtual, simulated, intermittent, but the learner reading course notes along with a textbook may still recognize the presence of an educator, and the educator marking an assignment may gain a strong sense of a particular learner. Is this enough? Are learners sometimes attracted to distance education because it allows a more independent kind of study? Do some learners enjoy a more abstracted form of the educator-learner relationship? Once again, there are many questions. Some of these have been posed in the relevant sections of earlier chapters.
To take one area for an example, little information was found about learning activities in distance education, let alone about the impact of variations in the educator-learner relationship on those learning activities. Phenomenographic analysis from a student's point of view could be most helpful. How do learners use instructional materials in their learning activities within the educator-learner relationship in distance education? How can the educator at a distance help the student in these activities? Do the educator's and the learner's learning styles or perceptual styles affect their relationship and the learning activities? How valuable is the opportunity for relevant practice, with or without the educator's coaching? What is the impact on the educator-learner relationship of learning in a workplace setting, or in a family setting, or in other informal and formal social environments? How can the educator stimulate the student to pursue the learning to deeper levels? There are more questions than answers, so far. Each area on the rim of independence could be studied from the perspective of the educator-learner relationship.

Some questions associated with the four quadrants of the model—especially, with the quadrants of openness and of certification—have been identified in previous chapters.
For example, the quadrant of openness seems connected with the philosophical stance of open learning. What does open learning entail when it comes to the educator-learner relationship in distance education? Is the model of the educator-learner relationship in distance education also useful as a model for open learning (which may be the philosophical stance taken in face-to-face instruction and group education as well as in distance education)?

The present study has not addressed the model in terms of its hemispheres, but this could be done. The quadrants of instruction and learning might be studied together as the hemisphere of content transfer; the quadrants of certification and openness might be linked in a study of access to education; the quadrants of learning and certification might be seen as a territory in which evaluation could be analyzed; the quadrants of openness and instruction could be joined in a study of educational structures.

Research on dropout needs to search out the ways in which areas in the educator-learner relationship in distance education may have influenced the learner's decision to persist with study or drop out. This approach would be supported in concept by Tinto's research on dropout from higher education because it would be examining the construction of a learner's perception of adequate intellectual and social integration within that relationship. Probably the most informative way to do this would be to
track students as they work through a course rather than to survey dropouts some time after the event. Employing a variation of Tinto's model—which is, after all, a product of his research designed in response to a particular circumstance—seems less important than making use of his understanding and interpretation.

As a final note to this discussion of an agenda for research generated from the model of the educator-learner relationship in distance education, it seems appropriate to point out that female technical and vocational students, and all ABE students, were not represented in the data collected for the present study. Future research might do well to investigate female (and male) non-university student populations—especially those which are not middle class European or American learners. This might include learners at different academic levels, comparisons between university students and technical and vocational students, and comparisons between learners of different cultures, classes and sexes.

The agenda for research generated by the model of the educator-learner relationship in distance education is already quite long, but it could easily be extended. The next section of the chapter looks at how this program translates into recommendations for practice, development and research at the institutional level.
4. Practice, Development and Research at the Level of the Institution

This study has produced some good news—presence at a distance obviously exists in the educator-learner relationship in distance education, and enhancing that presence is likely to increase learner persistence. It is good news that the field of distance education has produced enough theoretical literature to build a model of the educator-learner relationship in distance education. It is good news that we may now be better equipped to understand the complex, living, relationship between the educator—who can be an institution—and the learner in distance education. It is good news that some of the mini-theories in the field can be integrated and associated with dropout—with a concrete problem in distance education practice. It may also seem like good news that dropout from distance education appears to be similar to dropout from other modes of education.

However, the present study points to the need for systematic further research, especially at the institutional level. This could be considered bad news since the kind of research necessary will cost time and money, and distance teaching institutions are often short of both commodities. But the need for further research will come as no surprise to practitioners in the field, many of whom have been working
more on instinct and common sense than on detailed feedback from learners.

Most of the questions raised in the previous section on research generated by the model of the educator-learner relationship in distance education can be addressed at an institutional level. As well, there are questions dealing with the educator-learner relationship as a whole which come to mind when faced with the difficulties of actual practice. How can educators, who almost always have succeeded in the dominant educational system, create and sustain good relationships with learners who differ from them in many ways, and who may come to distance education for a second chance because they have felt like failures—felt stupid, injured, rejected, discriminated against—in the traditional educational system? Some previously successful students can be handicapped in distance education because they are immigrants, and may be learning another language and adapting to a foreign culture. How can the educator-learner relationship in distance education accommodate learners for whom English (or the language of instruction) is a second (third, fourth) language? Such questions may invite both psychological and sociological approaches but they do seem to be questions best addressed at the level of the specific problem—by the institution.

The phrase "learner-centred" distance education has become popular in some circles, but the model would suggest that "dialogue-centred" distance education is a more precise
way of describing good practice because it reflects the model's focus on the educator-learner relationship in distance education. As has been said before, dialogue may be simulated, mediated, or direct—it can be virtual or real, interrupted or immediate—but it must be two-way, and it should start without delay. Research suggests that the more personalized, empathetic, informative and immediate the dialogue is (or seems), the more likely it is to support the educator-learner relationship.

Tracking students could be seen as part of the increased dialogue desirable in the educator-learner relationship in distance education. So much of the learner's progress through distance education takes place out of sight of the educator that the role of the researcher is of great importance in the dialogue between educator and learner. The educator (as individual or as institution) needs the researcher as a kind of sensing system, a way of collecting information that will influence the educator's behaviour. This has to be specific to the culture(s) in which the educator works and to the environment of the particular institution. Shallow information, like that collected by registrars about previous education, current employment or marital status, or like that derived from short ex post facto surveys with poor return rates from dropouts, might be more meaningful if complemented with an on-going program of in-depth tracking of representative students.
As part of this enhanced dialogue, educators need to know what happens as learners approach counselors or advisors for information, consider acquiring certain certifications, discover the limits of access and wonder about social equity, enroll, hesitate or begin to work with a particular content and course structure, engage with mediated presentations, seek clarification from tutors, undertake learning activities, wrestle with relevance, negotiate openness, prepare assignments, undergo evaluations, assess their experiences with distance education, set priorities for study, get discouraged or encouraged, reflect on their educational plans, reflect on how distance education fits into their lives, cope with families and jobs, encounter contradictions, look for other ways of getting what they want, elect to persist with distance education, transfer to another mode, stop out, drop out, finish up, assess and reassess their intellectual and social integration with the academic institution. A lot goes on in the educator-learner relationship from the learner's perspective.

A lot also goes on from the educator's side, but the practitioner may feel removed from the "real" educator-learner relationship, especially in the more industrialized types of distance education. The rationalized educator sometimes consists largely of specialists who are not in any real dialogue with students. Tutoring, if it occurs, may be done by an instructor who had no hand in the preparation of teaching materials. The course writer or instructional
designer at a distance must imagine the learner—construct an abstract character or collection of characters. This may be done by using the self as a prototype, enlarged by observation and imagination. For the educator in such a circumstance, the relationship with the imaginary learner is likely to be far less surprising than real life relationships with actual learners. If course writers and instructional designers within the institution do receive feedback on a course it may come after they have finished their teaching acts, and without an opportunity for them to ask the learners to enlarge upon or clarify responses. This might be acceptable to the practitioners—industrialization has benefits, and having to deal with students consumes time and attention—but this lack of dialogue with learners may mean that the practitioner in a centralized system does not feel like an educator so much as a writer or an administrator or a media expert.

Perhaps this is not a loss in the overall educator-learner relationship, but the model of the educator-learner relationship in distance education would suggest that it is a weakness and one which could be overcome. Institutions could go through a self-evaluation, based on the model. An institution might ask how it could translate the concept of an axle of dialogue, spokes of support, and rim of independence into structures, processes and priorities that would help to integrate the rationalized roles of the educator. Even in the more industrialized systems of distance
education the educator-learner relationship can be made the focus of practice.

The spokes of support in the model could become the vehicles for institutional research. The institutional researcher might very well be an educator, using a more probing dialogue with a sample of students, attempting to make the learner a more fully understood presence and to identify effects of different kinds of interactions along the spokes of transactional distance, relevance, counselling and social equity. It is likely that such a probing and on-going dialogue would have an impact on the intellectual and social integration of those learners tracked—the investigation could very likely enhance the learner's sense of integration (and so reduce dropout), but it might conceivably irritate a learner who liked to keep feelings private or who was short of time. The effect of in-depth dialogue on the educator-learner relationship in distance education would in itself be interesting to document and to compare with the effect of "normal" amounts of dialogue on student progress.

Likewise, areas on the rim of independence could also be investigated at the level of the institution from the perspective of the educator-learner relationship in distance education. For example, if one of the motivations students have in taking distance education courses is to gain a certification that will help them to get a job, or to get a better job, follow-up studies could be done to see what difference the certification earned did make. Is the
institution fulfilling student expectations in this area? How could it do better? Job market analysis could be undertaken to discover what programs might be developed that would lead to new employment opportunities. Are the credits earned through distance education transferable to other institutions? Articulation work might be necessary. Can students combine credits earned at different times in a variety of ways towards a certificate from the distance education institution? Strategies for becoming a credit bank and processes for evaluation of previous learning could be studied. Learners' certification objectives could be investigated and mediated presentations designed to respond to these. Learners' specific needs for experience could be discovered and might influence choices of learning activities. Institutional research and development activities could address each area on the rim of independence.

Data from one institution might help educators at another, and so it would be wise to devise a means of categorizing and summarizing information gleaned from tracking students, and to share those techniques and that information with related institutions. The model of the educator-learner relationship in distance education is one instrument for analysis of such data.

This brings up an important issue: educators are themselves learners and need opportunities for professional development. This might be seen as attaching another "wheel" to the axle of dialogue in the educator-learner relationship
in distance education. Teaching practitioners how to conduct well-designed research and to write full and accurate reports of that research may seem like a frill when there is so much else to do, but the fruits of such development work could be significant improvements to educator-learner relationships in distance education. Some institutions and professional organizations run educational programs or seminars on distance education research, and there are university courses on distance education. It is possible to see professional development as part of a dialogue-centred practice, integrated with the educator-learner relationship in distance education.

Given this multitude of desirable research and development activities at the institutional level, what should be given top priority? Probably the single most important step would be to begin an in-depth tracking of learners as they are going through different programs. By establishing a procedure for doing this and for disseminating the information gleaned by it, institutions would enhance dialogue in the educator-learner relationship in distance education and they would have the means in place to investigate specific areas of concern which might come up from time to time. The second most important area for institutional development would be educational programs for practitioners. There is not much to be gained by doing research if educators do not have opportunities to learn about findings which might help them improve their practice.
Before leaving this section of the chapter it seems important to discuss suggestions for institutional research and practice that are specifically concerned with dropout.

The answer to the second research question made use of Tinto's theoretical analysis of dropout in higher education. Tinto's definition of dropout, as differentiated from other forms of leaving college, is something distance educators might wish to consider adopting. Dropout by Tinto's definition is indeed a waste, occurring only in those "situations in which there is failure on the part of both the individual and the institution" (Tinto, 1985, p. 29). In order to decide that an individual leaving a course before its completion is a dropout by Tinto's definition, that learner would have to be questioned personally—probably, would have to be interviewed in order to tease out some of the more hidden factors—and the educator(s) involved would also have to be questioned. This is, of course, another example of dialogue; once again, tracking students becomes important.

Dropout statistics might be lower if Tinto's definition were adopted. They would exclude learners who transferred to another program, stopped out for a while and then returned, lacked the necessary commitment to do the work, stopped studying because of changes in their employment or family life, and so on. Dropout statistics based on Tinto's definition might reflect a clearer understanding of student motivations for departure and be better grounded in the
educator-learner relationship; they might be more appropriately a part of course and program evaluations in distance education.

Institutions could jointly either agree to adopt Tinto's definition of dropout, or develop an agreed-upon definition, and standardize techniques for monitoring dropout. This would be a great help in dropout research and would facilitate more sophisticated comparisons.

Distance education practices could be evaluated in terms of Tinto's research on dropout: how well do particular practices contribute to the intellectual and social integration of the learner with the academic community? This is, in effect, a further study of the educator-learner relationship in distance education.

Intellectual integration would seem to be quite a reasonable goal, but social integration might also be possible if it is understood as the opportunity to know community members more fully—to have some "out-of-class," informal communication which allows people to "meet" each other. Social integration might also be accomplished by learning activities which re-integrate the student as a learner with her or his own communities--with having the learner do research or practice in local settings.

A lot could be done to help students get to know one another, and their educators, through such vehicles as newspapers or magazines featuring student and faculty profiles, introductory letters and photographs exchanged by
students and tutors who do not meet face-to-face, televised visits to distance education students in their homes and work-places, summer schools, study circles, group teleconferencing, computer conferences, brochures and catalogues and notices from the institution giving information about courses and facilities and the people who work there, and so on. It would seem to be a particularly tempting idea to arrange mentoring programs—to assign incoming students to one (primary) tutor/counselor for the duration of their involvement with the institution, or to establish itinerant mentors who actually visited a case load of students in their own communities on a regular basis to discuss their progress and help with academic planning.

Because institutions collect statistics on course and program completions, and because government-funded distance teaching institutions often compete for funding with educational institutions whose students are typically expected to study full-time and who may have to pass stiffer entrance requirements (and who thus may begin with greater clarity and commitment), the fact that about half the students who enroll in distance education programs do not complete them becomes visible and threatening to the future of those programs. The OUUK's dance around when a student shall be considered formally enrolled is one response to this pressure. Another would be to implement improved techniques for course evaluation that are independent of dropout
statistics and based on the model of the educator-learner relationship in distance education.

It may seem easier to strengthen the educator-learner relationship in practice by making use of the information already available than it is to do new research. This would be unfortunate for two reasons. First, doing the kind of research most needed at the institutional level will strengthen educator-learner relationships because it will enrich the dialogue between educator and learner. Tracking students is a way of immediately improving the educator-learner relationship in distance education. Second, distance education is a new mode of education and there is a real need to understand it. If a variety of local institutions will shoulder the task of contributing to a complex, accurate, and detailed picture of distance education's in-depth workings in different cultural and institutional settings, the field can grow theory from its own ground. This is where scholarship and practice actively need each other: local institutions should be able to turn to scholarship for co-ordination and guidance in their research—for theoretical frameworks, techniques, and tools that will help to make the efforts and the money they spend on research pay off. Scholarship, on the other hand, needs to be connected with the conflicts and complexities of actual practice.
5. Presence at a Distance

This final section focuses on a phrase which has floated evocatively through the study, picking up a variety of associations, slipping in and out of discussions, never allowing itself to be pinned down. As the main title of the work it has played an important, though elusive, role. As an occasional stand-in for the far more cumbersome phrase, "the educator-learner relationship in distance education," it has brought a slight air of mystery to an otherwise deliberate and logical prose. Addressing it here is unlikely to change its character; indeed, the reason for not taking it by the hand earlier and leading it into the limelight is that this phrase does not have the same breeding as its associates in the present study. It does not quite belong: it lacks an origin in the literature of distance education, and it threatens to turn into something a little poetic. Until now, it seemed wise to downplay this bent, but all the hard work has finally been done and what remains is a chance to make a last impression. Poems often begin with images. They do so because an image conveys an enormous amount of information in a very small package--an image gives the reader something to see and hold while travelling deeper into the experience of the poem. The image may seem, in the end, to sum up the poem it started.

There are many images which come to mind in response to the phrase "presence at a distance." Perhaps the most
universal of these is a description of matter within the atom.

Imagine a pinhead, perhaps a millimeter across, at the center of St. Paul's cathedral, surrounded by a cloud of microscopic dust motes far out in the dome of the cathedral, say 100 meters away. The pinhead represents the atomic nucleus; the dust motes are its retinue of electrons. That is how much empty space there is in the atom—and all of the seemingly solid objects in the material world are made of these empty spaces, held together by electrical charges. (Gribbin, 1984, pp. 31-32)

Presence at a distance. This image illustrates how all animate or inanimate bodies incorporate presence at a distance in their most elementary transactions. From this perspective, all education is distance education: all communication facilitated by electrical charges that cross empty spaces. We may not be conscious of how matter does not touch matter within our very skin, but surely we have grown up in a tension between what we might call loneliness and love—more or less supported by presences who are always at some distance. Yes, we touch and smell and see and hear and even taste the other in intimate contacts, but charged with that sensory load, we delight in the range and spaciousness of wider and more distant experience. We are weaned and walk into someone else's home, which we then understand as we do our own. As adults, we feel a satisfying and quite individual presence given but a single sentence on a postcard. As mothers, we may watch what once lived within us circling in a distant dome of its own, and still find the connection quick.
Human beings seem built of and for relationships, all conducted across fields of empty space.

So what does this mean for educators—and for distance educators in particular? The very concept of relationship implies separation: if educator and learner were one and the same, there would be no need for conscious dialogue between the two. On the other hand, even that which is one has within it distances, and electric charges that cross those distances. Perhaps what this implies is that distance education should not seem strange to us. It poses a problem of scale, but is otherwise quite in line with the rest of our experience. Distance education is no more frightening and unnatural than is our most intimate atomic structure.

The metaphor of the atom can be useful in thinking about the educator as an institution. The self, like an institution, is a construction: physically, made of all those atoms organized into organs and systems; in more ineffable ways—intellectually and emotionally—also constructed. Perhaps there is a spiritual given which is constant, but the constuctedness of any educator is undeniable. Perhaps, once again, the difference is mainly that of scale between the individual educator and the educator as institution. Can we create distance teaching institutions which have something like the organic wholeness of personal educators? How is it that the constructed self acts as one? Is there a parallel problem facing institutions to that facing persons, of making the unconscious conscious, and of creating accessible
knowledge from experience, observation and imagination? How do the inner narratives function to tell the stories that establish understanding?

What a fascinating lot of questions arise from this single image of presence at a distance—and there are other metaphors which might be equally fruitful.

Distance education is on the growing edge of the larger enterprise of education in the world today. The frontiers of distance education—and thus of all education—extend access to education beyond its previous limits, to learners not served by traditional modes. Growth into these unfamiliar territories can be a difficult task—one in which those relatively "blank" areas of the educator-learner relationship (social equity, access, openness, certification) which have more to do with the educator as institution and with the learner as a member of a social group, may become critically important. Dialogue between educators and potential learners in these new areas will be of the greatest importance.

For example, Indira Gandhi National Open University has a mandate to provide education to tribal peoples of India. In meeting the needs of communities which have not been well-served by educational institutions in the past and where few people are literate, IGNOU could develop forms of distance education which might also be effective in other settings. But, this kind of work will surely take a great deal of patience—and the monies and "successes" to be derived from
it may be relatively small compared with the costs of doing it.

At this point in the development of distance education, it seems important that we learn the more difficult—as well as the easier—lessons about the educator-learner relationship. Distance education is being recognized as an efficient mode for training in industry and as a supplement for more main-stream kinds of education. New workplace literacy programs using distance education in Canada may produce some of the same kinds of challenges faced by distance educators in India. The dialogues between educators and learners all over the world—people on the growing edges of distance education—need to be strengthened and shared so that we all learn from one another.

It should not surprise us if what we learn seems familiar, and a bit frustrating. William Lighty, of the University of Wisconsin, did not have to read contemporary scholarly literature on distance education in order to summarize the problems and possibilities of the educator-learner relationship in this field. Part of the following quotation was already cited in Chapter III; it is excerpted from an address Lighty gave in 1915.

In extramural teaching must be created the method, the technique, the atmosphere which shall give the university a new meaning in democracy. [The extramural teacher must] . . . solve the difficult problems connected with long distance instruction. . . He must be able to do more than correct errors and communicate information. He must put into his instruction his personality, his inspiration, his
interpretation, as the painter puts his on the canvas, or as the musician puts his into the composition. . . . Thus, the teacher-pupil relation in correspondence study becomes very real, very personal, and indeed very intimate.

The new type of teacher and the new type of text and instruction are required because we have a new type of student from that in the conventional school. He is generally an adult student. He has a fairly definite idea as to what he needs and wants, and often an almost equally definite idea as to what he does not want. He has to be convinced by logic and experience, and not by rule of order, or the position of the teacher, for none of the ordinary compulsions operating in the intramural instruction are effective here. . . . With the type of student suggested, it follows that there must be changed standards of success and failure. . . .

Extramural teaching in the university answers to the social present-day demand. . . for the opportunity to know--educational rights. (Lighty, 1915/1971, pp. 19-21)

Lighty's themes: the democratization of education; the artistic and intellectual challenge of making teaching materials; the need for a real, personal, intimate relationship between educator and learner; the problem of matching teaching schemes to the demands of adults who have learning schemes; the need to understand dropout and find ways to evaluate educational success and failure that are independent of course completion; and the response of institutions to social pressure for educational rights--summarize many of the concerns that emerged in the present study.

Why, then, must they be said once more?

They must be repeated and emphasized because they go against the grain of centralized distance education. They say that manufacturing fine packages of mediated instruction is
not the most important aspect of effective distance education. They say that sophisticated technologies will only become educationally effective when invested with the personality, inspiration and interpretation of an educator in a "very real, very personal, and indeed very intimate" correspondence with a learner. They say that the independent adult learner needs to be in a personalized and responsive educator-learner relationship, even though that learner may decide quickly that the course involved is not what she or he needs, or may prefer to work alone most of the time. They say that presence at a distance is produced by the investment of self in imaginative teaching. They carry into this new field some old truths about educational relationships. Distance education is not a short-cut; we cannot expect one-size instruction to automatically fit all.

But, distance education can be made to fit much better. That is why Lighty, and many other writers who followed him and whose scholarship contributed to the data base for this study, find distance education such an exciting prospect. There are powerful and effective educator-learner relationships in distance education just as there are in face-to-face modes. There can be presence at a distance.
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APPENDIX A

1. REQUEST PACKAGE SENT TO EXPERTS

A. List of Experts

1. Jocelyn Calvert
2. Urban Dahllöf
3. John Daniel
4. Keith Harry
5. Börje Holmberg
6. Barbara Matiru
7. Michael Moore
8. Hilary Perraton
9. G. Ram Reddy
10. Torstein Rekkedal
11. D. F. Swift
12. Ger van Enckevort
C. Materials Sent with Letter

PROPOSAL

DISTANCE EDUCATION AND OPEN LEARNING:
A CONCEPTUAL EXPLORATION OF EDUCATOR-LEARNER RELATIONSHIPS
IN THE CONTEXT OF DROPOUT

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JUNE 1989

COMMITTEE:

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