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TELEPHONE-MEDIATED
ACADEMIC DISCOURSE

by

Diane J. Thompson, M.A.(Melb), Dip T.(Mercer House)

A thesis submitted in total fulfilment of the requirements for the degree of Doctor
of Philosophy in the Faculty of Education, Deakin University, Victoria, Australia.

March, 1994
I certify that the thesis entitled ..................................
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CONTENTS

Acknowledgements 1

Summary of Contents 3

Preface 5

PART I: BACKGROUND 9

Chapter 1 INTRODUCTION 11

Chapter 2 KEY CONTEXTUAL ISSUES 21

Preamble 21

Section 1: Literature of Distance/Open Learning 21

Introduction 21

The relationship between distance education and approaches to student support 23

Andragogy 23

The issue of autonomy 25

The relationship between technology and distance education 29

Section 2: Audioteleconferencing 31

Introduction 31

The international tertiary context 33

North America 33

United Kingdom 34

New Zealand 35

Australia 37

Literature relating to the Health Sciences 38

Research in audioteleconferencing 40

Research using data from tertiary students' experiences 40

Experimental research on educational media 43

Trends in recent research 45

Literature for training 46

Teleconferencing selection 48

Section 3: Academic Discourse 53

Introduction 53

Approaches to language and discourse analysis 54

Language as used and studied in educational research 56

Section 4: Technological Mediation 59

Introduction 59

Telephone-mediated conversation 61

The tape-recorder as a mediating factor 63
PART II: METHODOLOGIES

Chapter 3 THE CONCEPTUAL/THEORETICAL BASE

Preamble

Section 1: The Pure/Applied Binary

Section 2: Ethnography

Section 3: The Hermeneutic Paradigm

The accommodation of an approach which is exploratory in intention rather than goal-oriented
The giving of positive recognition to the subjective prejudice and tacit knowledge of the researcher
The acknowledgement that the direction of the research is propelled by a dynamic interaction between the researcher and the research setting
An illustration of the concept that the part is always understood in relation to the whole

Section 4: The Importance of Spoken Language

Introduction
The issue of context
The issue of analysis

Chapter 4: METHODS

Preamble

Introduction

Section 1: The Case Studies

Introduction
The first major case study
Rationale for selection
The unit
Rationale for conducting tele-tutorials
The use of the data
The second major case study
Rationale for selection
Rationale for conducting tele-tutorials
The use of the data

Section 2: Written Data

Questionnaires
Journals
Course materials
Additional written data
Section 3: Spoken Data
  Introduction
  Interviews
    Interviews with tutors
    Interviews with participating students
  Audio-taped sessions

Section 4: Spoken Utterance as Written Sentence -
the Issue of Transcription

PART III: THE CASE STUDIES

Chapter 5: TOWARDS A TELEPEDAGOGY
  A CONCEPTUALISATION OF TEACHING AND
  LEARNING BY TELEPHONE
  Preamble
  Introduction
  A Discussion of Two Key Terms
    Pedagogy
    Interaction
  Presence and Absence
    Spatial and temporal considerations
    Auditory and visual considerations
  Voice and Print
    Matters of presentation
    The nature of language
    The nature of silence
    Then and now; fixed and transitory: the nature of the
    time frame

Chapter 6: THE TELETUTORIALS: DATA FOR THE THEMES
  Preamble

Section 1: Perceived Advantages
  To facilitate interaction
  To provide opportunities for peer learning
  As student support
  As reducing attrition

Section 2: Perceived Restrictions
  Technical problems
  Lack of visual cues
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Those who contributed to the research. Bev Taylor, the 'tutor' in the Faculty of Nursing, at Deakin University, who willingly exposed her teletutorials to public scrutiny. She was prepared to reflect on her approaches to teaching and learning and to spend considerable time discussing her sessions with me. To Bev, and her students, "Thank you". Although those contributors to the second major case study are unidentified, again I wish to record my sincere thanks to the tutors and students for the time and effort they made in supporting this research. Similarly, I thank those involved in the earlier minor case studies.

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My family for their understanding, as well as their assistance in so many ways.
SUMMARY OF CONTENTS

This study investigates the role of spoken language in tertiary teaching and learning as mediated by the telephone. There is recognition also of the mediating role of the tape-recorder and computer in this research. The discourse analysis has avoided the inherent difficulties of restructuring spoken language as written text as, by the use of CD-ROM, the spoken voice has been retained and it has been possible to connect the utterance and the reader. For a thesis that is concerned with the privileging of the written over the spoken in the academy, and the role of communication technologies, the use of CD-ROM is apposite and timely.

The study has been conceptualised as the bringing together of three potentially discrete elements (audioteleconferencing, academic discourse and technological mediation) which are framed by distance education/open learning.

Set within an interpretive (hermeneutic) paradigm, the research examines tape-recorded 'teletutorial' sessions to move towards an understanding of teacher-learner and learner-learner interaction, and to what extent the mediation of the communication technology has impacted on the pedagogy. It draws on data from two minor and two major case studies, using a range of methods. Conceptually, the discussion develops and elaborates the concept of 'tele' (as restricted to the telephone) as it engages with the notion of 'telepedagogy'. It articulates the areas of congruence and distinctiveness between teaching and learning by audioteleconference and teaching and learning by correspondence and face-to-face. It examines the relationship between language and technology, with specific reference to distance education/open learning. Empirically, the data support an in-depth discussion of selected excerpts to inform analysis of perceived advantages and restrictions of audioteleconferencing.

The study reveals that there are demonstrable occasions when the perceptions of the participants are seen to be at variance from those of the researcher and from other data. This conclusion has relevance to theorists concerned with the validation of qualitative data and to researchers who accept student and tutor feedback as representing an accurate recollection of what eventuated.
PREFA CE

When I began this study, somewhat naively I saw myself making a contribution to knowledge by saying something that was original. I looked, in Kaplan's words (1964, p23) towards "the twilight zone at the frontiers of knowledge". The word 'diacritical' was not part of my experience and I had not learned that "genuine 'original thought' is ... a metaphysical fiction" (Madison, 1988, pxiv).

When I first came to appreciate that empathy with respondents was more critical for this research than to retain detachment, I felt I had made a significant discovery. I had, on a personal level, for I had come to that understanding by myself and for myself. That I thought for a moment it was 'new' simply bore testimony to the paucity of my reading. Much later I see how my sense of what was appropriate is a discernment that many have made before me and is part of a long-standing debate. I now have a greater appreciation of the philosophical context but the fact that the initial idea was not derivative, but grew from the research, gives it a peculiar value for me. As I set it in the context of hermeneutics, the idea gained substance and took on new contours of richness.

Scriven (1967: 1977, p126) claimed that intellectual progress is only possible because "newcomers can stand on the shoulders" of the giants that have gone before them. Although I would not claim that I have got to shoulder level as yet, an appreciation of the history of the scholarship not only makes for humility; it also makes for a sense of engagement with intellectual tradition. It saves one from the dangers of isolationism and provides affirmation.

Thus I take comfort in the assertions that "writing is purely and simply a process of combination among given elements" and "different arrangements of words make different meanings, and different arrangements of meanings produce different effects" (Madison, 1988, pxiv). Respect for the 'voice of the other', in Bakhtian terms - the spoken and written language decisions made by those scholars and contributors to the research whose ideas have informed this study - has led to a privileging of quotation (and the paying of close attention to context) so what they have written and said is, to a substantial extent, not filtered through my interpretation and reconstituted as my language. As with Lather (1989, p9), the accumulation of quotations, excerpts and, at times, paraphrases, is part of the effort to be 'multi-voiced'; in her words, "to weave varied speaking voices together as opposed to putting forth a singular 'authoritative' voice". What is 'individual' is the selection and the interpretation of what has been selected.
This dissertation is concerned with a number of potentially discrete - but here, interrelated and intersected - disciplinary and methodological domains. While it is perceived that such a synthesis will enable a fuller and deeper appreciation of complex issues, there is concern that it has been impossible to pursue in depth each of these. I came to this doctoral thesis with a Bachelor's degree in English, History and Philosophy and a Master's degree in History and with a background in Education (senior secondary and tertiary). The selection of this topic reflected my commitment to distance education/open learning and a growing interest and involvement in communications technologies. When I was first working with 'teleconferencing', in the second part of the 1980s, it could be assumed that, in common usage, this was limited to audio - the telephone. Within a few years there is now a general recognition of the generic nature of the term and the need to be linguistically more precise. This dissertation is limited to one form of teleconferencing, that by telephone, and I have used the term 'audioteleconferencing' to refer to these telephone connections. There has been a further refinement in that the research is restricted to the telephone without such enhancement as connection to an answering machine, a modem, or with integrated software for digitised speech, for instance. As the study developed, I became increasingly interested in concepts of 'mediation' and in 'academic discourse'. My concern is with a particular understanding of these concepts in the context of a dissertation in the Faculty of Education and in the area of Distance Education specifically. Hence, for instance, I have chosen not to engage with recent work in the ideological and poststructuralist tradition in discourse theory and analysis.

A further important issue that emerged for me as the study developed is gender. Kramarae (1981, p147) advised that in study of all types of interaction there is a "need to be conscious that individual verbal strategies are likely to interact with gender". She contended also (Kramarae, 1988, p4) that Western history of technology has been basically men's history - "histories of technology have almost nothing to say about women" (p2). Likewise, Benston (1988, p18) asserted that "the technology developed in our society is developed overwhelmingly by this dominant class [men] and reflects their logic and their interests". The telephone is a clear exemplar of a "technology imprinted with patriarchal designs" (Wajcman, 1991, p163). Despite its promotion and development as a practical business and household tool by industry men, the main use of the residential telephone is for sociability - "tied up with gender" and the needs and concerns of women (Wajcman, 1991, pp104-105). Rakow's (1988) review of what she terms the 'received story of the telephone' clearly indicates that both the popular and academic literature she cited failed to recognise adequately the complexity of women's relationship to the telephone. Her conclusion (pp224-225) - "The story of the telephone
teaches us the lesson that communications technologies in a gendered society are not gender-neutral" - warrants careful consideration. Increasingly, however, as I read and reflected in this area I drew two conclusions: this is a significant area to explore; to give adequate attention to it demanded a much more fully elaborated and integrated discussion than was possible on this occasion. Hence it was decided that it was preferable to delete this aspect from the dissertation, rather than gesturing towards its significance.

With all research and writing there are difficult decisions to make regarding selection and prominence. As well as conceptual and empirical choices, in this instance there was particular need to balance brevity and succinctness with the desire to allow space for the participants in the research to be 'heard' in their own voices, as they illuminated the discussion. In this regard the decision to use CD-ROM* was more than a choice of an instrument of conveyance. A communications technology, itself, as discussed in the Introduction, the use of CD-ROM is integral to the philosophical tenets of this study. While it would have been preferable for all passages of integrated spoken utterance to have been incorporated this way, for ethical reasons (see Chapter 4) this technology is used to retain the spoken voice only in Chapter 7. My use of this technology has brought to my attention the significant issues of privacy and privilege that can so readily be forfeited where the speakers communicate, not only with the researcher, but a host of other unknown people in their own voices. It seemed imperative that the use of this technology be restricted only to that group of participants who welcomed the opportunity, while appreciating the implications in terms of exposure. It is believed that the technology has been used in the section of the dissertation where its application is most apposite, for this is where the discourse analysis is situated. However, in making this point, there is recognition that technology, also, acted as a mediating factor not only on the communication but also on the way the research and its reporting have been shaped.

On reflection, this study does not seem to follow what Frey (1990, p509) has delineated as mainstream conventions:

These conventions include the use of argument as the preferred mode for discussion, the importance of the objective and impersonal, the importance of a finished product without direct reference to the processes by which it was accomplished, and the necessity of being thorough in order to establish proof and reach a definitive (read "objective") conclusion.

* CD-ROM: Compact disc read-only memory.
The system requirements for this CD-ROM playback are:
- Macintosh with a 68020 processor or better and an Apple sound chip
- 4 Mb of RAM minimum
- System 6.0.7 or later
Although I have striven to reach meaningful and justified conclusions about telephone-mediated academic discourse I have deliberately attempted to be non-adversarial, while still revealing what I believe the texts of the teletutorial sessions and the interviews have within and among them. This interpretation is, in the final analysis, mine and each of the voices that has informed the study is an authentic expression of an individual perception.
PART I:

BACKGROUND
Chapter 1
INTRODUCTION

In the early period of modern distance education* - in the second issue of Teaching at a Distance - Lewis (1975, p69) wrote:

If dialogue is as important as so many people (including myself) believe it to be, then dialogue must surely be a priority candidate for sustained investigation. We urgently need to know just how important dialogue is in (say) the educative affairs of man [sic].

This brief quotation encapsulates most of the major concerns of this study: the role of spoken language in tertiary teaching and learning. It implies also that for those involved with distance education there are compelling reasons to scrutinise the curricula and pedagogies of conventional university study and determine the extent to which traditional and customary processes of teaching and learning should be incorporated into education that occurs away from the campus. Although much of both distance education literature and practice leads me to conclude with Harasim (1990, p42) that the "emphasis in distance education theory and practice is on individual, rather than group, activity", the existence of so many attempts to bring oral, group-based education to this cohort should not be overlooked.

As Lewis appreciated, fervent belief in the value of spoken interaction** does not, of itself, substantiate or justify. He contended that resorting to truisms such as "most students like to talk to other people about the materials they are studying" needs to be replaced by more "solidly grounded" arguments (p69, emphasis in original). On the basis of two minor and two major case studies at two tertiary institutions, this dissertation attempts to go beyond the rhetoric and the unexplored assumptions to document and substantiate these claims and to provide and examine the more 'solidly grounded' arguments.

---

* In the 1980s the term 'distance education' began to be replaced by 'open learning' and recently 'flexible learning', that seeks to collapse the distinguishing features of on- and off-campus education, has been adopted by some tertiary institutions, including my own. In this dissertation 'distance education' has been used to refer to teaching and learning that occurs beyond the physical boundaries of any campus of a university. Hence it is used interchangeably with off-campus education.

** The term 'interaction' is discussed in Chapter 5.
While references abound for the concept of 'discourse' and there is an extensive literature based on educational research drawing on the language of the classroom, library catalogues tend to remain silent on the specific subject of academic discourse*, with Grimshaw's treatise (1989) a recent and important exception. Hence, as Swales (1990) contended, study of intellectual discussion can provide insight into a heretofore essentially unexamined academic discourse genre. Further, while there is a considerable literature for audioteleconferencing, this typically is written from an applied stance and, to my knowledge, no study has brought together a study of the discourse of the audioteleconference with an examination of theoretical issues in tertiary teaching and learning.

Discourse analysts have long been concerned with how spoken language can be effectively restructured as written language, both for the analysis, itself, and also as document and to document. As I believe that any ostensible reproduction of spoken language as written text is both a transformation of the utterance and separates those who hear the original utterance and those who study it, I have been indeed fortunate that the technologies to support the incorporation of spoken language with written text have been developed at the time of the presentation of this dissertation. For me, a presentation of written material only would have compromised the integrity of the philosophical stance: it would have demonstrated, yet again, the privileging of the written over the spoken in the academy. The use of CD-ROM** seems apposite as there is a nexus with the philosophical tenets of this study, the presentation of spoken language is accommodated and, in the context of a study that is concerned particularly with technologically mediated communication, it draws on technologies to enhance the communication and to fill a perceived need. Although, as noted elsewhere (see Preface and Chapter 4), mainly for ethical reasons the integration of spoken voice and written text occurs only in one chapter (7), to the best of my knowledge this is the first doctoral dissertation to be submitted this way.

* * * * *

* As used in this dissertation, 'academic' is interpreted in a site-specific sense: the academy, i.e. the tertiary sector.
** The CD-ROM medium has been recognised from about 1984 as a publishing medium of great potential (Coates, 1988, p110). Coates concluded (p113):

So although there are major gains which are clearly recognisable ... changing over to this method can in practice be complex. As in so many computer related areas, the main obstacles are problems concerned with the organisation and behaviour of people, rather than technological problems ...
Education is overwhelmingly conducted by and through language (Atkinson, 1981, p102). Despite the fact that classroom interaction is predominantly verbal (Hammersley, 1986, pxiv), historically it is written language that has dominated scholarly concern. Even when the context is communicative expression in academic communities, it is written - rather than oral - expression that has recently received attention (Tracy and Caruzaad, 1993, pp171-172). In a literate culture, written language is seen as preeminent so "it is no wonder that, as teachers, we tend to assume that written language is the only respectable medium through which to learn" (Halliday, 1985, pvii). School is the institutionalization of literacy (Ulmer, 1989, p3) to the extent that formal schooling fosters the ability to "speak a written language" (Greenfield, 1972, p169). Thus speech and literacy are seen as distinct expressions of language: "speech makes us human and literacy makes us civilized" (Olson, 1977, p257).

Despite the preeminence of written language for scholarship, there is "now a sizeable body of evidence to support the prime importance of language, and particularly talk, in learning" (Watts, 1980, p93). As Jones (1988, p28) claimed:

The monument to the value of talk has been erected with more loving care and thought than any passing phase or craze. It has deep and lasting roots in linguistics, philosophy, theories of child development, sociology and in other strands of educational thought. It has stood the test of time.

Elsewhere I have written:

Contemplate, for a moment, a tertiary institution where there are no formal writing requirements; where it is recognised that students read and take notes, write down ideas and so on, but there is no necessity at any stage of their tertiary education to produce something in writing that conforms to established guidelines. Now, think about a tertiary institution where there are no formal oral requirements; where it is recognised that students speak to academic staff and their peers but there is no necessity at any stage of their tertiary education to engage in formal dialogue. We are part of a society that is grounded in literacy and so the first scenario I invited you to contemplate is so alien to our sense of education that it appears ludicrous. But what of the second? We speak as well as write: there is utterance as well as text. Is it equally ludicrous, then, to contemplate education that does not integrate this element? (Thompson, 1991, npp* )

For those who recognise the dominance of speech in our day-to-day activities and believe that all teaching and learning should help equip us for life; for those who seek spoken communication to teach and learn but believe also that such communication is central to the activity of learning itself, there is concern with the privileging of the essay/assignment, the domination of written text and the use of spoken language for

* No pages provided.
transmission rather than interaction. There is a belief that the rectitude of such actions should not be assumed, but should be at least scrutinised.

The technology of the telephone offers a way in which opportunities for spoken interaction with both peers and mentors can be brought to off-campus students.

'Technology' is a multi-faceted entity. It is clearly not simply an artefact, for it entails far more than its individual components. As Franklin (1990, pp14-15) wrote:

It [technology] includes activities as well as a body of knowledge, structures as well as the act of structuring. Our language itself is poorly suited to describe the complexity of technological interactions. The interconnectedness of many of those processes, the fact that they are so complexly interrelated, defies our normal push-me-pull-you, cause-and-consequence metaphors. How does one speak about something that is both fish and water, means as well as end? That's why I think it is better to examine limited settings where one puts technology in context, because context is what matters most.

The 'limited setting', the 'context', in which this discussion of the telephone has been situated is tertiary distance education.

Recognising that "one of the most important developments in educational theory and practice in recent times" concerns technology - most notably communications technology - Green (1993, p9) asserted that this development would "inevitably require, as many have observed, decisive shifts in how we think about and conduct curriculum and schooling, at every level". Schrag (1982) contemplated such 'decisive shifts' at the university. Fearing the technologies that result in a "fully formalized cybernetic world" would displace language and thought (p112), he urged for the university a recovery of the maieutic artistry of the Athenian Socrates. He wrote:

This would make it possible for us to reestablish learning as an adventure in the pursuit of knowledge. It would enable us again to approach communication as a creative process of dialogue and dialectics and thus restore both language and thought to their deserved eminence in the life of the university (p112).

Yet technologies, rather than displacing language and thought, have the potential to help create the university culture Schrag envisages. Technology, as expressed by the telephone, has not only supported, but has also influenced, teaching and learning for tertiary off-campus students: "Technological change, particularly in the area of telecommunications, has the potential to change substantially the way we go about teaching, the way we go about learning, the expectations of teachers and students, and access to education" (Smith, 1987, p38). Approaches to teaching so-called distant students have already influenced approaches to on-campus teaching. It is possible that
teleconferencing may help 'restore' oral language to more university students, while particularly providing access for those most obviously deprived of such communication: the off-campus learners. Does the telephone allow us to bring the university Schrag describes to all students, irrespective of location and situation? If it can do this, what will it bring to those students that they could not, and can not, get from correspondence study alone? Is it possible - or even desirable - to attempt to translate (some would use the word 'duplicate') the oral language features associated with face-to-face teaching when that teaching is by telephone? Is there something qualitatively different about 'tele-talk' for teaching and learning? Is there a 'telepedagogy'?

To respond to questions such as these the discourse that will be analysed is spoken interaction as mediated by the telephone in the context of distance education university programs. To appreciate its distinctive features, as well as its areas of congruence with other forms of academic discourse (here, written, but also spoken discourse that occurs face-to-face), it was considered important to examine closely the perceived different discourses and to ponder if they could be usefully categorised/demarcated. On the basis that, especially in higher education, there has been little analysis of "the peculiarities of pedagogical writing or speech" (Harris, 1991, p219) this dissertation makes its contribution to redressing this perceived deficiency as far as the latter category of speech is concerned.

Hammersley (1988, p93) articulated two approaches to studying discourse in the form of classroom interaction: the older tradition that restricts itself to description and explanation of observable behaviour and the most recent work that has a central aim to discover the assumptions, rules, strategies etc which underlie and produce classroom interaction. Neither of these, as I understand them, completely satisfies the work I have undertaken. While concerned to observe (generally through listening) and to determine the salient contributors to the interaction, I needed to ask and address a question beyond this: what does the interaction contribute to teaching and learning? Thus, rather than taking the desirability of spoken interaction as axiomatic, an important aspect of this study has been to determine what (in these instances, at least) leads to successful interaction and what aspects of interaction may be problematic for students and tutors involved in off-campus tertiary education. There is a further question that needed to be addressed: in what ways does the mediation of the telephone affect the interaction?

Somewhat ironically, technology (such as the telephone) is commonly seen at its most effective when that technology is 'transparent'. The better it functions the less its significance. The extent to which we are aware of the technology is generally a direct
response to the extent that it obtrudes into our experience. This implies that it has no influence that is perceived by the user and assumes such a subordinate role that it is normalised as part of ordinary experience. Thus, the more 'transparent' the technology, the more difficult it is to discern, but that does not deny its existence.

Concerned with 'a phenomenology of media', Ihde (1982, p55) sought to demonstrate that there is a unique way in which the introduction of media - communications technologies - transforms the communication situation. He argued that it is both inevitable (a necessary condition) and nonneutral (transformational) with respect to any communication situation that utilises communications technologies. Rather than disregarding the presence of the mediator of the communication situation, Ihde considered it as a dialectic of loss and gain: what the technology amplified and what it reduced. He asked:

But what if the use of a technology, any technology, is essentially nonneutral? What if such uses transform human experience and communication in fundamental ways? Should we not then become aware of and reflective about such transformations? Put positively, should we not attempt to reflect critically and deeply about the ways we communicate in such technologically embodied situations? (pp59-60)

A teletutorial is a technologically embodied pedagogic and communicative situation. Thus it is critical to study the discourse that occurs in the tutorial but to appreciate that it is mediated discourse: it is a teletutorial. Potter (1982, p222), in the context of his research at Murdoch University, defined 'teletutoring' as a "single tutor-student process", differentiating it from 'teleconferencing' where groups of students are connected. In contrast to Potter's restriction of 'teletutoring' to individual connections of tutor and student, at Deakin University, where much of this research and my professional work are situated, the term 'teletutoring' has been used for multiple connections (normally of one tutor with a group of students, but occasionally of several tutors with several students or groups of students without any tutor) to suggest the group processes of a conventional tutorial. There has been interest also in the effects of different configurations of audiateleconferencing. For this reason one of the major case studies concerns participants connected at individual locations, while the other concerns a composite, where some participants are connected at individual locations and others are connected as groups. Hence, in that instance, there is a combination of technologically-mediated and local, direct spoken communication.
Garrison and Brook (1991, p59) claimed that audioteleconferencing was "not only a unique technology but ... a unique instructional mode of co-facilitating education at a distance". They wrote (pp59-60):

We believe that much greater concern and attention should be given to teacher-learner and learner-learner interaction at a distance. There is so little discussion in the literature from both a theoretical and practical perspective concerning the role of the teacher/facilitator in distance education, especially with regard to audio teleconferencing.

This study has been concerned to address specifically the issue of 'teacher-learner and learner-learner interaction at a distance' and to determine significant differences as well as areas of congruence with teaching and learning by correspondence and face-to-face.

For researchers concerned with distance education/open learning, where this is undertaken by correspondence text study there is a denial of access to the very processes by which the learning is undertaken. While, albeit with difficulty, a student can describe to a researcher or record in a journal how the experience developed, in a teletutorial such processes are more readily discerned. This is not to suggest that the learning is bounded by the teletutorial event, nor that it is possible to reveal the processes for each - or even any - student in any complete form. With these qualifications, such a study does contribute to an appreciation of how off-campus students actually construct knowledge and understanding.

A teletutorial is normally premised on spoken interaction, but Burge (1988) characterised distance education as a 'transmittal model' when she wrote (p13) of the "prevalence of highly directive, transmittal models of distance education". Citing Burge, Harasim (1990, p42) concluded:

Even when the telephone or electronic mail is used, learner-instructor interaction remains weak, while collaboration among learning peers has not been considered even by the literature.

Yet interaction (both with mentors and peers) is recognised as important in all learning (see, for example, Bouton and Garth, 1983, Brookfield, 1986, Sharan and Sharan, 1976, Wells et al., 1990). It is theorised that, at a tertiary level, interaction - particularly, peer interaction - has special characteristics and requirements and that these will not be precisely the same for off-campus students and their on-campus colleagues. Further, it is theorised that the interaction will be influenced by the medium of the telephone.
Central to this study was a consideration of whether a 'transmittal model' is an appropriate characterisation in this instance. In a paper concerned with the teletutorial as a feature of distance education, Green (1991) suggested that distance education was an articulation of pedagogy and communications technology and, like Burge, concluded that in both these cases the normative paradigm was 'transmission'. He discerned three orientations in curriculum: 'transmission', with emphasis on teaching and the teacher; 'interpretation', with emphasis on learning and the student; 'negotiation', where there was a desire to balance the perceived needs of teaching and learning/teacher and student. Garrison (1988, p125), categorised 'teacher-centred' and 'learner-centred' as "extreme positions" that could distort the "interdependent and collaborative nature of adult education". He, too, sought pedagogical possibilities of 'balance' and 'negotiation' in what he delineated as a 'transactional process' and wrote:

If we do not begin to view education as a balanced transaction and begin to work towards this goal then we risk perpetuating the existing burden of many distance learners who study without adequate guidance from and dialogue with teachers and fellow students. The quality of an educational transaction is dependent upon collaboration and meaningful dialogue and negotiation.

This study, philosophically in accord with the views expressed by Garrison, was influenced by a desire to appreciate what orientation(s) to curriculum existed in the teletutorials examined. As well, it was concerned to examine how, and to what extent, the communication technology of the telephone could enable such collaborative approaches to pedagogy to be realised for distance education students.

Hence the analysis of the discourse took account of the flow of the exchanges, not simply to determine what proportion was tutor-dominated but to consider qualitative matters: whose agenda was privileged; did the sorts of issues that were introduced by the tutor differ from those discussed by the students; what similarities and differences were there between teacher-student interactions and student-student interactions; what influence how they were initiated (ie orchestrated by the tutor or arising spontaneously) had on the interaction; what external factors were influential and in what ways? How both students and tutors questioned, how contributions were formulated and reformulated, were two of the many areas that invited consideration. It was interesting to consider how students' oral abilities and their stated self-perceptions of how fluently they communicated this way influenced their response to the teletutorial experience and acted as indicators of their ability to handle intellectual requirements. To consider such issues helped inform how tutors control the information that is presented to students and how tertiary students, in particular, respond to pedagogy that is conceived within an emancipatory, collaborative paradigm.
I concur with Young (1992, p18) that it is "important to distinguish between teachers' espoused theories and their theories-in-use", for, from the outset, the data revealed that it could not be assumed that theoretical stances towards pedagogy claimed by tutors in interviews would be translated clearly to their handling of teletutorial sessions. While proclaimed intent and perceived action were fruitful areas to explore, it was felt necessary to consider the implications of such tensions for practice. Further, it became apparent that, not only would perceptions of the interactants and the researcher/analyst vary, but, in some critical areas, a participant's understanding of what had occurred in the teletutorial was not supported by analysis. While it is recognised that alternative interpretations are consequential, and at times there is no principled basis in the data for adjudicating between different interpretations, there are occasions where it is possible to set a perception against the recorded fact. Because the researcher/analyst comes to the experience in a different way from the interactants and has opportunities for manipulation of text, it is probable that the focus of the researcher/analyst, the opportunities for multiple hearings and the undertaking of detailed analysis, will constitute a more informed understanding of what happened than is possible for the participant who has multiple demands on attention and experiences the teletutorial once, as a totality. For such reasons it is theorised that the experience for the researcher is significantly not the same as that of the interactants. It is altered especially by the mediation of the tape-recorder and this should not be discounted.

As conversation is dominated by speech, it is understandable that it is the spoken element that has received the bulk of attention of discourse theorists and analysts. Yet conversation is a binary of speech and silence. Moreover, in the social setting silence is normally interpreted as a negative and dysfunctional phenomenon. Response latencies as brief as one to two seconds are customarily associated with inadequate social skills (McLaughlin and Cody, 1982, pp299, 301). It is theorised that silence in the teletutorial will be of a different order for two reasons: the mediation of the technology and the academic nature of the discourse. Hence the number and extent of unfilled pauses, their cause and their resolution, as well as their effect formed part of the discourse analysis.

In conclusion, it is theorised that there are distinctive features of learning and teaching in the oral mode as mediated by the technology of the telephone. Hence a variant of discourse analysis, taking cognisance of structure and shape, but also the content and meaning as well as a relatedly new pedagogic approach, was developed. Informed by functional analysis, a mode of literary critique that was aware of, and sensitive to, technological and pedagogical considerations formed the conceptual base for the discourse analysis. The essential concern was with how the academic discours
developed and a reflexivity between text and context was sought in the search to understand and appreciate what was occurring in these telephone-mediated teaching and learning sessions. An approach was pursued that would not shatter the dialectic of the discourse but would be an interpretation of the texts that preserved the dynamic construction of the talk.

This study is not an attempt to erode the value of written language in the academy; rather it aims to analyse technologically-mediated spoken language to determine how and what it contributes to scholarship and, in the context of distance education, seeks to determine its effects for participating students and academics. As Holmberg (1991, p24) wrote, "It is mediated communication ... that is at the heart of distance education".
Chapter 2

KEY CONTEXTUAL ISSUES

Telephony undergirds our theories about communication. Telephone speech splits sound from the rest of the senses, splits the dyad from the rest of society, and splits communication from other activity. Telephone conversation is pure dialogic speech communication. Hence, descriptions of telephone conversation are central to theories of language, conversation, and interaction. (Hopper, 1992, p41)

This study has been conceptualised as the bringing together of three potentially discrete elements: audioteleconferencing, academic discourse and technological mediation. These three elements are framed by distance education/open learning. Hence this chapter sets the research in the context of four critical issues: distance and open learning, audioteleconferencing, academic discourse and technological mediation. It offers a review of the literature in each of these areas.

SECTION 1: LITERATURE OF DISTANCE/OPEN LEARNING

INTRODUCTION

Although it is sometimes said that distance education has existed almost from the beginning of written records, it was in the twentieth century, particularly from the 1970s, that teaching at a distance achieved international recognition (Sewart, 1981, p8). Significantly, in 1982, the International Council for Correspondence Education changed its name to the International Council for Distance Education (Garrison, 1989, p1). Although correspondence has remained the foundation of most distance education, morphological differences between distance and mainstream education are falling away as technology allows a closer simulation of the usual educational exchange between teacher and student (Shale, 1989). Whereas earlier authors stressed the distinctive nature of distance education, and the separation of distance education from conventional education is still actively pursued (see, for example, Rumble, 1986), some prominent scholars seem to be modifying their views. For instance, Sewart, writing in 1981, contended (p11) that "the process of learning at a distance is generically different from the conventional mode" yet, in 1987, claimed (p157) "all teaching and learning is based upon the same fundamental principles. ... There are no unique principles inherent in
distance education which are not also inherent in mainstream education". Partly in response to such beliefs, the term 'open learning' now has considerable currency, although Evans (1989a, p173) claimed this was "apparently the most provocative" term of all to be "tossed into the debate". Various attempts at its definition seem to revolve around the notion of freedom from constraints on the learning process (Boot and Hodgson, 1987, p5). Hodgson et al (1987, p18) claimed, however, that, despite the advent of new technology and the sudden escalation of funding for 'open learning', the practice of open learning has remained "in general a limited expression of what is possible in theory".

As Evans (1989a, p176) recognised:

> Distance education forms an intersection of spatial, temporal, social and cultural 'distances' and these serve variously to confuse and enrich our understandings of its structures, processes and practices.

Both Shale (1989) and Garrison (1989) believe that the time has come for a new paradigm as the focus of distance education shifts from structural to process issues. Garrison (1989, Preface) contended that how mediated communication is facilitated will guide the development of distance education in the future. A little earlier, Harris (1987, p198) had argued that critical analyses of the media as both constraining communication and enabling - or even constituting - it, could help grasp the context offered by teaching and learning at a distance.

After "more than two decades of fruitful existence since its evolution" there has been a corresponding growth of literature in the field of distance education as scholars have given it increasing attention (Satyanarayana and Raghunath, 1991, p48). From this body of literature, attention has been given to aspects of what shall be termed 'distance education' that have a clear relationship with technology and learning by spoken discourse. Further, it has been deemed necessary to gain an appreciation of philosophical and theoretical approaches to key elements of distance education, for how teaching and learning are approached are critical issues in all education. In an early paper Moore (1973, p665) decided that a learner's 'distance' from his teacher was not measured in "miles or minutes" but was "defined as a function of individualization and dialogue". In this statement he foreshadowed two issues that were to become highly significant in the distance education literature and particularly pertinent to this study: the extent to which the distance learner preserved autonomy and the role of interaction.
THE RELATIONSHIP BETWEEN DISTANCE EDUCATION AND APPROACHES TO STUDENT SUPPORT

Tertiary distance education in the context of this research concerns adult learners. To connect these students with mentors and peers by telephone is commonly seen as one way of providing support. With the correspondence model still firmly in place, there is considerable difference in the views of those responsible for distance education as to the rectitude of supplementing print-based materials and concern that the full implications of such actions be recognised and appreciated.

Holmberg (1982, p91) argued that there seemed to be at least two different schools of thought on distance education: one that was individual and non-contiguous based on correspondence and one that aimed to parallel conventional face-to-face tertiary study with opportunities for contact with mentors and peers. Studies of the characteristics of mature adult learners that have indicated their tendency towards self-directed and independent study (see, for example, Jarvis, 1980) have persuaded some distance education providers that contact such as that by teletutorials is intrusive and unnecessary (Broadley and Shaw, 1982). For others, such as Willen (1981, p110), this type of contact is essential: "An educational form like distance teaching, naturally requires that students and teachers, as well as the students among themselves, maintain contact". While there may be some validity to Daniel and Marquis' claim (1979, p38) that 'naturally' there is a tendency for tutors unused to dialogue by correspondence to attempt to "pull the system towards more of the face-to-face contact which they find more familiar and fulfilling", the developing understanding of the nature of distance learning is leading to a reconsideration of the desirability of non-contiguous study. There is a strong body of literature (including Daniel and Marquis, 1979, Morgan, 1985, Sewart, 1981 and Rumble, 1986) which contends that spoken interaction is an essential element of distance education. There is now considerable support for education in the 'collaborative mode' as "the most effective and appropriate style for teaching adults" (Conti, 1985, p221).

ANDRAGOGY

Theories of how adults learn were subsumed into the term 'andragogy' by Knowles (1970) and Boud (1987, p224) judged this as "perhaps the approach which has had the most impact in recent years on the mainstream of adult education". But, as Savicevic (1991, p180) pointed out, insistence on a specific approach to adult education and learning can be noted in the writing of Comenius in the seventeenth century. With few
exceptions, however, most scholarly research and theory development on young and middle adulthood has been conducted within the last twenty-five years with most major studies being published within the last decade (Merriam, 1984, p3). It has been claimed (Merriam, 1987) that, when theories of adult learning are compared, it is Mezirow’s that stands apart. His theory (see, for example, Mezirow, 1990) situated multiple levels of learning within an integrated system of knowledge. His focus of ‘transformation’ offered a way of understanding the unexamined but existent links between adult development and adult learning. Significantly for the tenets of this thesis, Mezirow made a clear connection between adult education and dialogue. From the position that "critical self-reflection is central to the nature of adult learning in modern cultures", he wrote (1990, p354)

Because critical reflection is a process of testing the justification or validity of taken-for-granted premises, the role of dialogue becomes salient. It is through dialogue that we attempt to understand - to learn - what is valid in the assertions made by others and attempt to achieve consensual validation for our own assertions.

Consequently, education for adults may be understood as centrally involved in creating and facilitating dialogic communities to enable learners to engage in rational discourse and action. From this vantage point, adult education becomes the process of assisting those who are fulfilling adult roles to understand the meaning of their experience by participating more fully and freely in rational discourse to validate expressed ideas and to take action upon the resulting insights. Rationality means assessing the validity of expressed ideas through reflective and critically reflective discourse. Rational thought and action are the cardinal goals of adult education.

Frequently cited in the literature, Mezirow’s concepts have been critically considered by Clark and Wilson (1991). They expressed concern that, while the ‘overarching goal’ of Mezirow’s framework is to understand the meaning of experience as a basis for decision and action, "his efforts to attain this goal are impeded by the separation of experience from the context which both shapes it and provides its interpretive frame" (p90). With this comment in mind, it is interesting that Savicevic (1991, p199) concluded that, while differences in the conceptions of andragogy exist, many European countries feature a holistic approach. It was contended, however, that the "scientific system of andragogy" had not reached its conclusion and both research and the further professionalisation of adult education and learning would have "a major impact".

Peterson’s (1979) review of the research literature on learning by adults supported the argument that the needs and experience-based concepts of andragogy offer useful insights into the learning need patterns of adults (Hough, 1984, p8). So James (1979), for instance, delineated and examined characteristics of mature students and the role of those involved in counselling them. Other scholars, however, have found cause for
alarm (see, for example, McKenzie, 1977) that an essentially philosophical construct had come to be prescriptive for educational practitioners. Hence, while the concept of andragogy has great appeal for those involved in facilitating adult learning (as it is learner-centred, suggests humanistically desirable and democratic practices and separates educators of adults from their counterparts who deal with 'pedagogy'), there is a fear that an uncritically accepted academic orthodoxy may emerge in the field of adult learning (Brookfield, 1986, p96). Day and Baskett (1982, p95) contended that andragogy should not be understood as a theory of adult learning but as "an educational ideology rooted in an inquiry-based learning and teaching paradigm". The extent of the epistemological debate is clearly evidenced by Bright (1989).

In this study, while there is an awareness and appreciation of 'andragogy', the generic term 'pedagogy' has been retained. Although there is recognition that there is a distinctive feature of adult education - the deeper and richer experiential base on which to draw - much of what the literature claims as delineating adult education is opposite to all education. For instance:

A person-centred approach to teaching has long been advocated by adult educators. It is an approach that arises from a consideration, first and foremost, of the conditions that enhance adult learning. It emphasizes helping students to learn and thus begins with a concern for what the learner experiences rather than the factors that contribute to good instruction. Of primary importance is the encouragement of learner autonomy and personal responsibility. (Maclean, 1987, pp128-129)

As there is recognition that autonomous learning is especially characteristic of learning in adulthood (Knowles, 1970, 1984 and Moore 1986), there is a clear connection between the literature of andragogy and that of distance education.

THE ISSUE OF AUTONOMY

Chené (1983, p38) claimed that one of the central concepts found in the ideology and practice of adult education is that of autonomy (see, for example, Brookfield, 1985; Holmberg 1986) and Nation (1991, p102) averred that "the terms 'independence' and 'autonomy' are central within the sacred tradition of distance education". While 'independence' is generally viewed as being synonymous with 'autonomy' (see, for example, Brookfield, 1983 and Moore 1983), as Chené (in common with Morgan, 1985 and Garrison and Baynton, 1987) pointed out, to understand the significance of

* See Chapter 5 for a discussion of this term.
autonomy in the literature of distance education is often difficult because writers often fail to distinguish differences in meaning when using the term. Since Moore, writing in 1973 (p663), referred to general confusion regarding the meaning of independent learning, there appears to have been little progress in this area of scholarship with Candy (1987, p160) referring to "at least 30 different terms which deal with the same general area".

Having defined 'autonomy' as meaning that the learner assumes responsibility for his or her learning, Chené concluded (p46) that it is achieved "only if there is, besides the will to learn, an awareness of the process of learning and of existing norms [with] an ability to make critical judgements". Such skills are not a necessary consequence of age or maturation. Candy (1987, pp162-163) provided an impressive list of citations from the literature of adult-learning to suggest "that many adult learners feel far from self-directing" and adults do not necessarily want, or feel able, to exert control over the teaching situation. Yet, as Harris averred (1987, p108), the pre-constituted position of the receiver of the distance education material "is the ideal mature student, challenging, critical, with a certain independence, but still firmly contained within and committed to the framework of the pieces".

Faced with a different reality, practitioners and scholars such as Harris and Morgan sought forms of academic support most likely to facilitate students' development in their conception of learning and academic socialisation. Morgan (1985, p43) believed that the activities of writing, trying out ideas, debate and discussion, seemed the most likely to achieve such aims and considered these "clearly aspects of regional academic support". He concluded (p44) that the function of dialogue seemed to play a "unique role" in helping students construct meaning from course material and enabling them to grasp the kind of learning the university was encouraging. Such literature, therefore, validates the teletutorial.

Granger and Roberts (1989, p8) argued that the current underlying concern in distance education is the issue of control. There is an umbilical link between the concept of independence and the nature of control. A truly independent learner, while prepared to seek help, does not give up overall control of the learning process (Moore, 1973, p669). Claiming that the distant learner is 'compelled' by distance to assume a greater degree of autonomy, Moore (p670) categorised the teacher as an "ancillary, supporting, helper's role", to be used as a resource to the extent the learner wished. Material is written for learners and its use in their hands. Moore's position thus puts control with the students. In complete contrast, Chesterton (1985, p32) contended that one of the
distinctive characteristics of distance education was that the locus of control was shifted heavily towards the educational system and its staff and away from the students. His view is similar to that of earlier writers, such as Farnes (1975) and Kirk (1976), who were concerned by the authoritarian and even elitist flavour of centrally produced courses for high enrolments.

In more recent writing, Moore (1986) indicated that the situation in distance education was not as simple to categorise as he had done previously (see above). On the basis that dialogue and structure were two critical variables in distant education, he argued (p11) that, where there is no dialogue and a high degree of structure, there can be no negotiation or consultation. In this situation the control is clearly with the institution rather than the student. Thus he recognised:

Distance teaching, having the power associated with industrialization in education can be a more efficient and effective force for achieving either enhanced learner autonomy or greater control by teachers and educational institutions (pp21-22).

Harris (1987) similarly appreciated the duality and dilemma when he titled his book Openness and Closure in Distance Education. Similarly Campion (1991), who linked educational technologies used in distance education with potential to control, contended (p184) that decisions taken in this area "will contribute to a range of very potent political outcomes, varying from the totalitarian to the democratic".

To Moore, who argues cogently for 'learner autonomy', that autonomy equates with freedom. He pointed out (1986, p22) that in distance education, because of the large scale delivery systems and the impact of modern communications media, the value judgements of freedom and control and the consequences of the choice made, or not made, are far reaching. The value of such technology as the telephone is that it can be used to free people from the constraints of their learning; to Moore there is no implication of greater control by academics or institutions. He has clearly retained his view (Moore, 1973, p661) "that each scholar can and should pursue knowledge in his own idiosyncratic fashion" which he sees as "a fundamental assumption of the university and one of its most ancient traditions".

Looking at the concept of control from a different perspective, Garrison and Baynton (1987) suggested that independence, although important, needed to be combined with power and support to define the more important and relevant concepts of control. Thus, in contrast to some of the earlier literature that considered the most important attribute of distance education was the independence associated with the non-contiguous nature of
the transaction, these writers put prime emphasis on the complex interaction between teacher and student that forms the educational experience itself. They wrote (p14): "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".

Considering adult learners, Pradl (1990, p23) invoked the phrase 'mature dependency' to define the relationship at the mature end of the dependency continuum where there is a kind of reciprocal dependency. For him, 'competitive isolation' - the corollary of the adult as the 'independent, autonomous learner' - by "shutting down the mutual role relations which support a learner's passage into competence ... effectively stifles intellectual and emotional inquiry" (p25). In an oft-quoted article, Daniel and Marquis (1979) examined "the difficult synthesis which distance learning systems have to effect between those activities in which the student works alone and those which bring him [sic] into contact with other people" (p29). They wrote (p33) that, where interactive experiences required the bringing together of people, they submitted the remote student "to just those constraints of geography and time that he [sic] enrolled in the system to escape". For this reason, exploiting more fully teleconferencing could provide the properly planned interaction that could help students with socialising their learning, assisting with pacing as well as tempering the authoritarian edges of a course (p36). Hence they advocated a mixture - and the right mixture at that - of interaction and independence.

Thus distance educators have differing views of offering student support. One (as typified by Holmberg, 1986, p70) leaves the initiative clearly with the students "as potentially independent people" not only to decide but to state if, and to what extent, they want support and advice. The opposite view (as represented by Stewart, 1981 and 1982) promotes active intervention to encourage a more successful distance education experience. It has been claimed (Mason and Kaye, 1990) that, although distance learners have more control over when and where studying takes place, to carry out the learning process they need correspondingly more support (than do on-campus students) in terms of resources. Resources such as telephone tuition can be a "safety net" (Morgan 1985, p40), with the implication being that they should be there at all times for all students as a possibility, as there is no assurance as to when they will be needed. A different view between the two extremes cited is expressed by Moore (1986, p12). He recognised learner difference and, while allowing the legitimacy of support, put the first priority as using such support to reduce dependence and encourage students to become self-directed. Notwithstanding such philosophical stances, Morgan (1985, pp44-45) was concerned to make the point that they should not be used to rationalise withdrawal
of support: "Belief in student autonomy doesn't give you the right to run a correspondence college" (Interview 1.12.89).

I concur with Garrison (1988, p125) when he wrote:

In the past we have proudly argued that 'independence' is a key concept of distance education. It has also been represented as one of the major areas of theoretical development. Again such a view distorts, at least in its best sense, the nature of the educational transaction. With recent developments in communications technology and the ability to communicate at a distance, such a view of the independent learner is anachronistic.

THE RELATIONSHIP BETWEEN TECHNOLOGY AND DISTANCE EDUCATION

Wagner (1990, p53) claimed that the relationship between the fields of distance education and educational technology is a strong one, with every indication of becoming even stronger. For Wagner, (pp65-66) "distance education provides educational technologists with an exceedingly rich research and application environment, while educational technology provides distance educators with methods and means of improving performance". Garrison (1987, p45) wrote: "Distance education is inexorably linked to the technology of delivery ... Without the use of technology, distance education would not exist" and, with Baynton (1987, p8), made the same assertion. This is not a novel or radical view: as early as 1973 Moore (p664) claimed that media skills 'must' be employed in distance teaching. The relationship between the two disciplines is conventionally seen as distance education drawing on the available technologies to support its endeavours. Writers such as Wagner (1990, p53) and Peruniak (1983, p76), however, place the emphasis differently, seeing distance education as "a leading edge in the interface between education and technology under the banner of educational opportunity".

Although there appears to be consensus that distance educators are inevitably concerned with matters of technology, whether technology (in whatever form) is celebrated or condemned; scrutinised or passively accepted; sought out as desirable or imposed and endured, is far more ambivalent and contested. Evans, for example (1991, p179), engendered a sense of foreboding when he used the word 'loom' when he wrote, "In fact, they [matters of technology] often loom large over the entire teaching and learning processes of distance education". There is now greater recognition of the complexities and implications that attend educational technology and increasing concern to scrutinise and problematise. Theorists such as Bigum and Green (1993), Campion (1991) and
Harris (1987, 1991) offer insightful and thought-provoking critiques of the present, and scenarios of the future, as they raise pertinent questions about how choices and applications of technology impact on the design, delivery and reception of distance education, suggesting that some decisions to employ such technologies have been made with scant appreciation and understanding of their consequences. Even when they are selected in the context of a particular educational paradigm, as Harris (1991, p223) contended, it is "now impossible to hold to educational technology as a universal discipline, offering principles of design that are so obviously superior as to need no justification or argument".

It is not only the current economic and political climate of restraint and accountability, nor the blurring of demarcations between different modes of education, that have forced the need for answers to difficult questions. The communications technologies, themselves, with their distortion of time and space and their creation of new information spaces (Bigum and Green, 1993, p13) have disrupted our concept of education in profound ways. Distance educators are increasingly concerned, therefore, with the extent to which the technologies cause a deconstruction and reconstruction of notions of time and place, but also with the extent to which they are used to reconstitute the normative educative experience of the face-to-face classroom (often in an idealised and anachronistic sense) and/or create something that is discernibly new and different.

While the telephone is conventionally not seen as 'new technology', and so is often dismissed or disregarded in recent literature, it was the invention of the telegraph (the precursor of the telephone) that "permitted for the first time the effective separation of communication from transportation" (Carey, 1989, p203). As Grint (1992, p153) contended, "inasmuch as technology embodies social aspects it is not a stable and determinate object ... but an unstable and indeterminate artefact whose precise significance is negotiated and interpreted but never settled". As illustration, Grint used the telephone. Originally used to broadcast concert music, it is as a result of negotiations - rather than determinations - that the telephone now serves as a communication channel for students undertaking distance education. Further, the silicon chip and optical fibre have allowed us to use this technology in new and more sophisticated ways (Evans, 1991, p180). Although, as mentioned in the Preface and below, this dissertation is restricted to the conventional telephone, it is appropriate to note that such recent digital technologies have enhanced voice clarity and line capacity as well as changing the way in which connections are made.
One of the early writers to connect distance education and telephone teaching is Bååth (1979) who analysed which educational functions the telephone could have in distance education. His analysis was carried out in relation to different theoretical models for teaching. Since Bååth's work, millions of words have been devoted to various aspects of audioteleconferencing but there is relatively little that clearly connects this with distance education. Moore (1985) correctly observed that, although vast quantities of descriptive statistics have been produced on hundreds of thousands of students, the data rarely answered any question which is derived from, or contributes to, any kind of theory. Similarly, in his paper that sought a conceptual synthesis between audioteleconferencing and distance education, Rothe (1985, p200) contended that there was a lack of evidence to conclude that the major concepts of audioteleconferencing were interrelated with other distance education variables "so that a holistic portrayal of audio teleconferencing could be produced". The conceptual framework he provided is premised on a central component of interaction which is "filtered through a technological design". He related this interaction directly to learner characteristics, environments and attitudes; course structure, pedagogy and evaluation; and considered it was peripherally influenced by institutional context, finances, educational tradition, academic standards, cultural context and administration. He concluded (p206) that, since audioteleconferencing was "rapidly becoming a preferred instructional medium", there was a need for analysis that was more conceptually precise.

As Evans (1991, p180) wrote:

The technologies of distance education are used to help us frame and establish a useful educational dialogue. In this sense, it is the organisation of the curriculum and pedagogy which is the important educational issue and the matter of technology forms part of the context in which distance teaching and learning takes place.

SECTION 2: AUDIOTELECONFERENCING

INTRODUCTION

The construction of the word 'teleconference' is a combination of the Greek tele, meaning 'from a distance', con, the Latin prefix meaning 'together and ferre, again from the Latin, meaning 'to bring'. This is the essence of the teleconference: the bringing of people from a distance together. Garrison (1989, p64) wrote that while teleconferencing has attracted considerable interest in both the educational and business communities, it is also somewhat of enigma. He attributed this to the fact that there are
several different types of teleconferencing — as Johansen (1984, pxvi) recognised, it is a
generic term for the whole range of electronic meeting aids — and that it supports "the
most human of activities", communication.

The teleconferencing that concerns this dissertation is audio, but it has been instructive
to pursue literature that deals with related media, most particularly computer
conferencing. Texts such as Harasim’s (1990) *Online Education* and Mason and
Kaye’s (1989) *Mindweave* proved rich resources. The on-line COMSERVE discussion
of the effect of computer-mediated discourse on teaching and learning has instructive
parallels for this study and it is generative to discern and contemplate differences in
telephone-mediated discourse in the same academic setting. Further, audio-tele-
conferencing is frequently discussed in the context of other media. This section (as
does the dissertation, itself) will, however, concentrate on material that focuses attention
on teleconferencing using the telephone as a separate instrument: ie not linked to an
answering machine or a modem, for example and not incorporating soft-ware that
digitises voice. Moreover, although some of the literature is concerned with audio-tele-
conferencing applications in business, the focus of the literature selected for inclusion is
concerned with education. As the literature reveals, there are different ways of
configuring audio-teleconferences. While this dissertation is concerned essentially with a
model that connects an individual tutor to individual students as a group, the literature
concerned with tutor connection to individual students has not been disregarded as it is
instructive to consider what differences (if any) the configurations play in the teaching
and learning.

The world’s first telephone call over outdoor wires was made on August 10, 1876
(Brooks, 1976, p52). However, it took over a century from the telephone’s invention
for scholars to begin to assess the social consequences of this medium (Aronson, 1971,
p153) and, as Rakow (1988) claimed, this is still a largely ignored area in contemporary
scholarship. Two recent publications, *Communicating by Telephone* (Rutter, 1987) and
Telephone Conversation (Hopper, 1992) represent a start. In both cases, however, the
relevance to this study is limited. Rutter has reported experimental studies to compare
face-to-face talk and the sound-only talk of telephone conversations and Hopper has
concentrated his attention on openings in the one-to-one person telephone call. One
related area — of several — that Hopper (p217) considered needed treatment is the
teleconference. There is, however, a considerable literature on the application of
audio-teleconferencing for education, with an inevitable and obvious link with distance
education. Although interaction by telephone teaching in schools has received some
attention (see, for example, Braucher, 1983, Dunnet, 1988 and Walker, 1988), audioteleconferencing literature tends to come from the tertiary sector.

THE INTERNATIONAL TERTIARY CONTEXT

University lecturers in many countries have used audioteleconferencing to reach their off-campus students. Many practitioners and educational researchers have published their findings. The literature not only is instructive for indicating the extent of usage and the times audioteleconferencing received attention, but also as a way of appreciating how, and for what purposes, audioteleconferencing was introduced, as well as its integration with other media. With passing years and increasing experience, the literature indicates a concern to go beyond describing what happens at individual institutions and within individual courses, to engage with issues of attitudes and, occasionally, pedagogy. While most countries have had some experience with audioteleconferencing and these experiences have been reported in the literature, four areas have been selected for particular attention: North America, as the first and leading user of teleconferencing; the United Kingdom, with its strong association with distance learning through the Open University and its use of audioteleconferencing to support this endeavour; New Zealand and Australia as the two countries where this research has been located. Further, as the two major case studies are drawn from the Health Sciences, literature that links audioteleconferencing with this discipline has been included as a separate section.

Globally, audioteleconferencing is the fastest growing communication innovation in distance education (Garrison, 1989, p65) as well as the most widespread application of information technology in this area (Winders, 1988, p18).

* * * * *

North America

Given that the telephone was invented and first used in the United States of America and that (with the exception of Sweden) it has the greatest person-to-person telephone ratio in the world, with some states having at least 99% of households with telephone access (Lavrakas, 1987, p14), it is not surprising that this country led the way in the early years of telephone use for teleconferencing. According to Olgren and Parker (1983, p15) the first reported audioteleconference did not occur until 1939 when classroom lectures were transmitted to homebound and hospitalised students in Iowa. These
students could talk with the teacher and fellow students. Within two years the idea had spread across the state and more than one thousand students had participated (Rao and Hicks, 1972, p18). The 1940s and 50s saw a few experimental applications by post-
secondary institutions. The first college level application was by the University of Illinois College of Dentistry in 1947 (Rao and Hicks, 1972, p18). The pioneering work on teleconference teaching in the United States of America was begun in 1962, and extended in 1965, with the Educational Telephone Network (with Lorne Parker as Project Coordinator) at the University of Wisconsin-Extension. The university developed an extensive audioteleconferencing program: see Johansen et al (1978), Monson (1978), Olgren and Parker (1983). Paul et al (1985). In the decade from the mid 60s to mid 70s many colleges and universities implemented large audio teleconferencing systems with the first issue of the Telephone in Education Newsletter (1976) listing 37 institutions with involvement in teleconferencing - of these 31 were in North America. By 1978 there were about 50 organizations using teleconferencing for some type of postsecondary education or training (Johansen, 1984, p64), although by then it was claimed that scepticism towards educational technology was quite common in the United States, following an era where technology had been heralded as the answer to pressing educational problems (Johansen et al, 1978, p1). Olgren and Parker (1983, p15) concluded that, at the time of writing, probably only 2 to 3 per cent of all colleges and universities in the United States used teleconferencing on a regular basis with 74 per cent of teleconference use being audio (p68).

There is an extensive literature on audioteleconferencing in Canadian universities: see Graham (1984) Educational Teleconferencing In Canada; Mugridge and Kaufman (1986) Distance Education in Canada. In a national survey conducted in 1983 (Knowles, 1984), forty Canadian tertiary institutions indicated interest in using audioteleconferencing. During the 1980s audioteleconferencing grew from an occasional experimental delivery method in distance education to a routine - and even indispensable - part of Canadian delivery strategies (Robertson, 1986, p283). It is used for continuing professional development (see below), for credit courses (see, for example, McDonell, 1992) and for postgraduate study (see, for example, Burge and Howard, 1990; Garrison and Brook, 1991).

United Kingdom

Winders (1984, p61) claimed that the Open University's innovative culture made it, to that stage, the "one important exception" in the United Kingdom to the use of written material for distance education. He contended (Winders and Watts, 1984, p168) that,
for many Open University students, audioteleconferencing had proved to be "their only lifeline" and had prevented "a significant number of 'dropouts' from the courses". Not surprisingly, much of the British literature stems from the Open University's experience. It tends to be produced by practitioners: see, for example, George, 1979; Meakin, 1978; L'Henry-Evans, 1974; Perinchief and Hugdahl, 1982; Robinson, 1981, 1984. Early in the period, Turok (1977, p27), who had been closely involved with the Open University's implementation of audioteleconferencing, contended that the simplest way to overcome non-attendance due to disadvantage or remoteness was a telephone call. He made this claim despite the fact that, in Britain, very poor line quality, cost and an attitude to telephone use that tends to restrict its use to emergencies have been major disincentives (George, 1979, p19; Winders, 1988, p39). The Open University experience has been to use the telephone to provide tutorial and counselling facilities. In contrast to such American tertiary institutions as the University of Wisconsin-Extension, where weekly interactive teleconferences are the major element of the courses (Daniel and Marquis, 1979, p34), it has not been concerned to develop audioteleconferencing for full course provision. Sparkes (1984, p215) considered that the teleconference offered opportunities for small group tutoring but, in common with Rutter and Robinson (1981, p357), concluded that at the Open University these had too often been regarded as remedial, rather than as a way of teaching through discussion. Despite the claims of Winders and Watts (see above), comments such as the following from Stewart, (1987, p167) clearly place the emphasis of teaching and learning with the print package and restrict the role of the teletutorial:

The teachers' role is not to introduce new material but rather to see that students comprehend the ideas within the teaching package which they have already received, to remedy academic weaknesses discerned in relation to the package and to mediate between the package and the individual students.

Recently Laurillard (1993), from the Open University, in her "framework for the effective use of educational technology", seemed dismissive of audioteleconferencing. She chose, in the very brief section where audioconferencing was given specific attention (pp165-166), to concentrate on audiographics, which add the transmission of digitised graphics to the experience. (See, also, McConnell, 1982, 1984 and further discussion below.)

**New Zealand**

In New Zealand the Otago University's Extension department provides audioteleconferencing for the islands. Described in 1984 as "skeletal" and "provincial" (Bewley, p93), it developed considerably in the next few years to be "the heart" of the
distance teaching program (Otago University Extension, undated). This is at least partly attributable to the fact that imported equipment was rejected as "inefficient and expensive" and the university invested in custom-built equipment with venues linked by 4-wire circuits (McMechan, 1988, p6). This different technology is seen as providing audio quality of far higher a standard than experienced in conventional conference calls, with the students able to communicate "much more naturally and freely with one another" (Love, 1989, p7). The Otago model is to link groups of students with other groups as well as the tutor, but very isolated students are linked separately. By 1990 the 'Unitel' network comprised 109 seminar rooms in 49 institutions (Otago University Extension, undated) forming an electronic classroom that covers practically the whole of New Zealand (Love, 1989). The national network is used mainly for post-experience courses, which are not available at all universities throughout the country and for which there is a national, and even international, demand. These courses are run largely by the specialist schools at Otago (Tansey, 1989).

Saklofske et al (1977) discussed the role of telephone seminars in behaviour modification courses for practising professionals organised by the University of Otago. In contrast to the general trend of literature that reports students' satisfaction, the long distance telephone seminar was strongly criticised for both technical and pedagogical reasons. Shannon (1987) evaluated audioteleconferencing for the delivery of a particular paper and drew more optimistic, if qualified, conclusions. The most recent literature has been highly commendatory: Brown (1989, p6) referred to "evident enthusiasm" among students for audioteleconferencing; Love (1989, p8) described the system in an "idealistc tone", conceding only "minor disadvantages"; Purdie (1990, p9) concluded "the teleconference offers an opportunity for student participation that is matched by no other medium, and this is one of its greatest strengths".

In the case of the other major provider of distance education in New Zealand, Massey University, telephone use has not been developed systematically for either formal or informal teaching or in extramural or extension programs (Broadley and Shaw, 1982). Broadley and Shaw's (1982) report is of interest for its explanation of why teleconferencing had not been adopted, what factors had been influential in the decision to undertake a trial in one paper in Human Development and the students' perceptions and evaluations. A second trial at Massey University, conducted in the Department of Nursing Studies and reported by Madjar (1990), used the Otago 'Unitel' network. Students' evaluation of both trials was very positive and increasingly Massey University is integrating this medium into its extramural program.
Australia

Reviewing teleconferencing in Australia at an international symposium, Pardoe (1984) stated (p199) that, although teleconferencing had been used in Australia since the early 1970s, in education it offered a "completely new tool for teaching". Lange (1984, p3) contended that for isolated students in Australia there would be "tele-education or no education". A year earlier, a CTEC report (Willis, 1983) had discussed the impact of technology on the teaching process in Australian universities. From the basis that advances in telecommunications were transforming the teaching process in institutions of higher education and were having a "continuous and ever-changing" impact on every aspect of university work (pp3-5), the report claimed there was special relevance to distance education. The emphasis was clearly on computer - "of course, the dominant technology" (p4) - and satellite technologies, with the only explicit reference to telephone tutorials being that they are "used to some extent" (p48).

Deakin University has taken a leading role in using audioteleconferencing for distance education. Its involvement was considered sufficiently great to warrant the installation of its own connection equipment and in 1992 a 'Confertech' 60-port 'bridge' was installed, the first such facility of this capacity at an educational institute in Australia. Deakin University's first venture into audioteleconferencing was in late 1983 with its off-campus Master of Business Administration [MBA] program. Grimwade (1984a, p26) concluded that the trial, although "fraught with technical and administrative problems ... showed the value of adding this form of real-time teaching to distance education programs". In the 1985 edition of Deakin University's Open Campus three of the six articles concerned telecommunications and distance education: two (Banks; Tran and Northcott) dealt essentially with technical aspects and the extent of telecommunications networks for distance education in Australia; the third (Ensley) was written from a tutor's perspective. He wrote of 'a feeling' that benefits outweighed costs and called for an evaluation of teletutorials to validate or refute his impression. In 1989 such an evaluative report (Grace and Thompson) of teletutorials at Deakin University was published. Describing it as "very useful", Nation (1990, p99) continued:

This research, which demonstrates that students' perceptions of teaching techniques are not necessarily the same as those of the teachers, has important implications for those who wish to communicate messages which may disappoint committed professionals.

Another Australian pioneer in using telephone tutorials was the then division of External Studies and Continuing Education at Mitchell College, Bathurst, NSW: see, Sisley (1983). Recent reporting of audioteleconferencing at other Australian tertiary institut-
ions includes the work of Bowser and Shepherd (1991) at the then University College of Southern Queensland; Cowley et al (1993) from the University of Newcastle and Hobson (1991) from the University of New England. Dunbar (1991, p46), while observing that at Charles Sturt University audioteleconferencing was "a valuable tool in distance instruction", nonetheless concluded:

In Australia, a country at the forefront of distance education, it is probably accurate to estimate that 95 percent of distance education is transacted through the mail.

While he does not provide any substantiation for his 'estimate' and does not suggest what part of the remaining five percent is taken by audioteleconferencing, as distinct from 'modern technologies', Dunbar's comment does point to the pre-eminence of print technology in Australian distance education and the enhancing-supplementary role of audioteleconferencing. In this regard his conclusion is very similar to that of Potter (1982), from Murdoch University, for whom 'teletutoring' was inevitably "a supplementary process", and then likely to be applicable only to those disciplines whose programmes were frequently interactive and group-oriented.

**Literature relating to the Health Sciences**

Teleconferencing has a long association with health professionals. Johansen et al (1978, p69) attributed the "widespread use" of teleconferencing to this group's needs for continuous updating of skills in rapidly changing fields as well as the demand for continuing education for accreditation. Although the literature indicates that several university faculties have successfully used audioteleconferencing for educational and administrative meetings (see, for example, Raszkowski and Chute, 1984; Searfoss et al 1982), with House and Keogh (1989, p304) concluding that audioteleconferencing was "an effective and economic method of supporting and delivering telemedicine and distance education services", occasionally there are indications of some resistance to audioteleconferencing in medical settings. For instance, Ribble (1985) concluded that there is considerable difference between an impetus from the users to establish such a network as against one that is imposed externally.

With particular reference to nurse education, audioteleconferencing has been praised as "...a particularly cost-effective method of delivering continuing education [which] appears to be effective in terms of the nurses' learning and satisfaction" (Kuramoto, 1984, p268). Evans and Otte (1983), discussing the criteria for selecting this delivery method for course content for the School of Nursing of the University of Alaska, were less confident and concluded (p52) that audioconferencing is "a challenging process that
requires further study for its continued effective implementation in educational settings. Audioteleconferencing has been used since the 1970s by several Nursing schools and faculties. For instance, in 1979 the University of Washington established a teleconference network for the state's six colleges and universities that allowed nurses to receive their continued education by teleconference (see, Hagman and Brown-Skeers, 1980). Cragg (1991) undertook a qualitative research study to examine the experiences, learning strategies and reported learning of nurses undertaking a specified course by teleconference or correspondence. She concluded (p39) that "teleconferences encouraged group learning; although correspondence was more convenient". Similarly to this study, Cragg conducted interviews with participants and her conclusions regarding such issues as the value and valuing of group learning, the role of the teacher and the perceived failure of the audioteleconferences to reduce feelings of isolation and alienation, are clearly relevant. However, a significant variable (the need to travel), that is interpreted as a major limitation, is avoided in the dominant model discussed here, for the teletutorial is taken at individual locations and students are rarely required to travel.

As these case studies are located in Australia and New Zealand, it was considered instructive to review the extent of the literature reporting specifically on audioteleconferencing as used in the health sciences in both of these countries. Matthewson (1989, p1) contended that considerations such as restriction of courses to major centres, the related costs of travel to these for remote students as well as the ability to mount worthwhile courses where local enrolments are low were "being addressed in a positive and innovative way by the University of Otago and new technology". She claimed that the distance teaching programme, developed since 1986, was largely health-science based, was available nationwide and provided "live" tuition by telecommunications. Drawing on student "evaluative feedback", she concluded (p3) that the audioteleconferencing contact was the "factor most relevant to the low drop-out level". The Department of Nursing Studies at Massey University used audioteleconferencing as a teaching medium in one of its 1990 papers. The lecturer involved evaluated the experience using student questionnaires as her research instrument and concluded that it was "a very useful teaching medium": see Madjar (1990). The teletutorial experience of another group of undergraduate Nursing students, this time at Deakin University, was discussed by Thompson and Taylor (1991). They concluded (p33) that the financial and human resource costs were "readily justified". Game (see Lundin 1990, p16) referred to using the same technology for continuing education to registered nurses throughout Australia, but did not comment on its effectiveness.

* * * * *
The literature, therefore, suggests that several writers have found it instructive to consider audioteleconferencing in the context of particular user groups. The literature referred to above is, however, often restricted to brief and limited discussion with few of the papers or articles attempting to make broader connections to other case studies or with theory.

RESEARCH IN AUDIOTELECONFERENCING

There is an extensive literature that evidences scholarly concern with audioteleconferencing. Part of the interest and value of this literature is that it demonstrates how research has developed.

Research using data from tertiary students' experiences

There are some valuable inclusions in the literature of research into audioteleconferencing in tertiary institutions. Scandinavian writers have released several reports based on experimental methodology. Flinck (1976) released a substantial report of a pilot study in using the telephone to assist delivery of a course in Educational Technology at the University of Lund, Sweden. Three groups were established: correspondence only; correspondence with systematic telephone instruction; correspondence with group meetings. The telephone in the instructional process was identified quantitatively by the number of calls and their length and who initiated the call. These data were then linked to such variables as results, age and place of residence. Student opinion was gained through questionnaires. Of special relevance to this study, Flinck (1976 and 1978) was concerned with analysis of selected telephone calls and applied Flanders' Interaction Analysis Categories (see Chapter 3: section 4). In this case, however, the conversation was inevitably between tutor and one student rather than the model this study researched: tutor and a group of students. Willen (1981) presented an evaluation of an experimental program and a follow-up study in Distance Education at Swedish Universities. While audioteleconferencing was not the focus, Willen did discuss telephone contact with special reference to Umeå University. Individual telephone calls and conference calls were part of the criteria used to consider 'distance overbridging aids'. An experiment at NKI, Norway, (again with individual tutor/student contact) was reported on by Rekkedal (1989). It considered such issues as organisation, costs, benefits to students and the changes in tutor roles and attitudes that would be necessary. The value of the findings was, however, significantly reduced because approximately one half of the experimental group was "for some reason" never reached by telephone (p18). Nevertheless, Rekkedal (p39) felt the results were
"promising enough to justify further research and clearly open the possibility for teletutoring to be installed as a normal part of the NKI distance teaching system". He concluded (p36):

... we feel that we have good reason to work further on the challenge of finding how telephone tutoring can be organised in a pedagogically sound and cost effective way in distance education.

In an early North American study, Thomas and Williams (1975) used a questionnaire as their main research instrument when they researched users' attitudes to audioteleconferencing as conducted by the University of Quebec. They concluded (p29) that the system was "well established and well liked". Lamy (1980), after the Télé-université had used the telephone as an educational aid for five years, reported on a survey to ascertain the status of students, their feelings on teleconferencing and how they perceived it worked as well as how it compared with other forms of tutorship. From 215 questionnaire responses, Lamy concluded (p133) that, while this form of tutorship seemed to require greater efforts, students believed they had learned as much from teleconferencing as from other forms of tutorship. Although she drew very positive conclusions (p32) for the "great majority" of students, these are supported by a surprisingly low 60% of respondents who were connected in small group conferences (< 10) in their own homes with a tutor. Of special interest is her statement that the explanation given by the minority whose interest waned was not related to the telephone, itself, but to antipathy to working with a group. Heselton (1984) surveyed 498 students and 60 tutors to assess whether audiotelconferencing could be used to enhance the delivery of the distance education program to British Columbia's Open Learning Institute. She identified (91-94) the characteristics and conditions of likely student and tutor participation and an acceptable format/content for such tutorials. Hesselton concluded (p95) that teleconferencing had "a role to play" but that OLI "would be ill-advised to make teleconferencing mandatory".

Brookbank (1984), in Audio Teleconferencing in Distance Education, reported on a study to test the effects of audioteleconferencing on groups of students enrolled in four correspondence courses offered in Administration and Management by Dalhousie University. Two courses were acquisition/knowledge-based; two application/conceptual-based. He related much of the data to Flinck's earlier conclusions, finding areas of similarity (such as no significant correlation between grade achievement and age or sex) and considered that some areas of difference could be attributed to the difference between one-to-one and group teletutorials. Brookbank reported some dissatisfaction with the experimental methodology and concluded (p78) "... we feel that a truly
comprehensive and rigorous approach to the measurement of expectations has yet to be developed". He advocated (p79) the use of interviews and the possibility of multiple regression analysis as constituting a more effective statistical approach for dealing with the many variables that appear to have a bearing on the effects of audioteleconferencing in distance education (p82). As an example of recent qualitative research that has used interviewing extensively, Cragg (1991) evaluated nurses' experiences using correspondence and audioteleconference: see above.

Although the research of this dissertation is concerned with the connection of relatively small groups, and has sought detailed and developed perceptions from a small number of participants, it should be noted that other researchers have chosen to examine audioteleconferencing where the group size is very large and the number of respondents high. As examples of literature that draws on substantive data bases, Kruh (1983) reported on responses from 6,000 adult learners over a four year period to an audio telephone network operated by the six Kansas Regents universities at graduate and postgraduate levels and Edison-Swift (1983), of the University of Wisconsin-Madison, examined two large group audioteleconferences (281 sites, 600+ participants) for the continuing education of health professionals.

Such research has endorsed the use of audioteleconferencing for tertiary students. In contrast, Thompson and Knox (1987) chose as their indexes of successful use persistence and results and, on these bases, drew very different conclusions. 102 students in 14 different courses at the University of Manitoba were interviewed before they began their studies and were sent a course evaluation form after their final examination. Students who had received telephone tutoring received an evaluation form adapted from Flinck's (1978) questionnaire. Thompson and Knox concluded (p114) that "The results of the present study provide little evidence that the provision of systematic telephone tutoring is an important supplement to the traditional correspondence method". Their research showed no connection between persistence and scores and the student belief that the telephone contact would be important. Nor was there a meaningful correlation for those who did not receive telephone contact with tutors. Hence, they claimed (p116):

While the findings must be regarded as exploratory rather than definitive, they call into question the value of the prevailing practice of providing telephone tutoring in correspondence study.

Where research of telephone teaching and learning of tertiary students has been of particular interest it has incorporated interaction analysis, with some linking of dyadic
communication and pedagogical considerations. The work of Chang-Yit (1979); Rutter and Robinson (1981); Edison-Swift (1983); Boone (1984); Kirby and Boak (1987), in common with this research, is based on analysis of transcripts from taped audioteleconferences. As such literature is clearly relevant to discourse analysis, it has been discussed in that context (see Chapter 3: section 4). Although Kirby and Boak (1987, p33) were dismissive of such earlier studies as have been cited above for they "were not carried out in the context of an instructional model ... [and] appear to be far removed from the reality facing distance educators", their own study (as reported) while situated within a framework of instructional theory is similarly collapsed to statistical tables based on coding. Edison-Smith (1983, p119) called for further study to address factors that influenced the amount of interaction as did McMeen (1983) who contended that it was necessary to analyze the interactive dialogue to improve the possible effects of this interaction.

**Experimental research on educational media**

There have been many research studies which have evaluated the effectiveness of audioteleconferencing in a variety of settings. One of the earliest of these that concerned tertiary level instruction was an experiment to compare the effectiveness of teaching Psychology in face-to-face groups and by telephone (Cutler et al, 1958). While both groups showed significant learning and attitude change, there was no significant difference in the two methods' effectiveness. Blackwood and Trent (1968) randomly assigned a group of 71 Kansas university students to either traditional learning situations or telephone instruction. Using pre- and post-tests, they found no differences in the amount of learning between the two groups.

The early 1970s saw behavioural research into teleconferencing begin in earnest (Albertson, 1984, p394). At this stage the trend was to undertake empirical investigations of the effects of channel type (ie audio, audio plus video, face-to-face) upon outcomes and attitudes. This interest was a natural consequence of reaction that stressed the deprivation of vision in audioteleconferencing. What emerged from these studies is that, as an independent variable, channel type is not as significant as predicted. In 1970 the Communications Studies Group of University College, London, reported on a pilot experiment to compare face-to-face meetings and telephone for the efficiency of information transmission. Correlation analysis did not find any performance difference attributable to the mode of interaction. Kirkhorn (1985) found that while the learning and communication style of students varied, there were no significant differences in reactions and level of satisfaction to courses delivered by
teletraining and face-to-face. Christie and Elton (1975) researched the differences between telecommunication and face-to-face communication in business and government. They concluded that only in a minority of cases would outcome be affected by the channel. Chapanis et al (1977) found that channel type had no effects on objectively measured group outcomes. Short et al (1976) concluded any discernible effects were subtle and qualitative and that statistical differences in user attitudes towards the various media were "relatively trivial compared with the task variable" (p152).

In 1980 Fowler and Wackerath produced a synthesis of the literature that compared audio and face-to-face conferencing. While the research reported that consistently people preferred face-to-face communication, both laboratory experiments and field trials (according to Fowler and Wackerath) failed to support this "simplistic notion". They concluded (pp238-239) that "in many respects audio communication is equal, if not superior, to face-to-face communication", citing such features as accuracy for conveying objective information; accuracy and rapidity in problem solving; achieving desired attitudinal changes and - most significant for those concerned with educational applications - discussion of ideas. Robinson (1984, p129) concluded similarly:

In general, the research shows that learning can take place as effectively, and in some cases more effectively, on courses taught by telephone as on courses taught by other means. ... No differences between face-to-face and telephone communication have been found for tasks involving information transmission, some kinds of problem-solving and generating ideas. It seems that the tasks which most frequently occur in educational settings (giving and receiving information, asking questions, exchanging opinions and problem-solving) are tasks which can be done effectively by telephone.

In reviewing the research to that point on the effectiveness of audio/telephone communication as a teaching medium (p128), she described it as "rather uneven" and was concerned by its tendency to use very small samples and diverse methodologies and techniques that varied in reliability. Writing a little earlier, in 1981, Bates had contended that most research into the effectiveness of educational media had been "spectacularly unproductive", "totally unhelpful", "sterile" and "impractical for decision-making purposes". Although his paper is concerned specifically with the media of television and radio, in a personal communication he stated that he believed the critique should hold equally well for 'classical' empirical research on other educational media. My reading supports his view. Bates' basic criticism of such research is that it has used inappropriate methods, with most experiments in the field of instructional media not guided by any theoretical framework. Thus he wrote (p219):
Without an accurate observation of the nature of learning and instruction through the use of different media, and without a carefully developed set of assumptions about the conditions which are likely to influence learning through different media or methods, it is difficult to see how satisfactory experiments can be designed.

Similarly, Albertson (1984, p394) lamented that, by the time the research findings of the kind cited above were published, "channel type had become an inextricable part of their research edifice". She contended that new studies of teleconferencing should be based upon variables that had been shown to be important determinants of group behaviour and that these variables should be embedded theoretically. As Bates (1981, p219) pointed out, difficulties caused by the lack of adequate theory can be seen by the failure to identify those variables which are most likely to influence experimental outcomes. Consequently the consistent finding of "no significant difference" does not mean that there are, in fact, no important differences due to different media treatments, but that the experimental design is too crude to measure them - "it is an artefact of the design" (p220). Earlier, Schramm (1977, p36) had written that "perhaps the most regrettable characteristic of the long line of instructional media experiments has been their macro quality (italics in original)"; an average over many tasks lacks necessary refinement.

By the late 1970s the trend of research was not to demonstrate superiority or inferiority but rather to suggest what makes the experience different. An early and influential paper based on empirical research by Rutter and Stephenson (1979) sought to delineate the differences between face-to-face and telephone meetings. They coined the term 'cueloseness'. Salomon (1979) examined the unique educational characteristics of different media. Cohen (1984) reported on experiments with groups completing two problem solving tasks using either a face-to-face medium or teleconferencing to study how the different media affected the situation.

**Trends in recent research**

Rather than comparing audioteleconferencing with other forms of communication that covered identical teaching functions, recent research has moved to an examination of the internal dynamics of the audioteleconference itself (Olgren and Parker, 1983, p101). In this regard studies (for example, Edison-Swift, 1983 and Kirby and Boak, 1987 referred to above), that have applied conversational analysis techniques to measure conversation content and style, and have paid attention to the interaction of those measures with such variables as group size and desired outcomes, have been of special interest. Using the instructional model proposed by Kirby and Boak (1987), with a Q-
sort and brief questionnaires, Kirby and Chugh (1992 and 1993) have compared student and instructor perceptions of elements in the audioteleconferencing environment.

In his discussion of teaching by telephone Short (1974, p66) claimed that the experimental and theoretical work to that date had overlooked what he termed a 'crucial' aspect: the users' attitudes. This perceived omission was addressed by several writers in the early 1980s: see, for example, Bretz and Schmidbauer (1983); Elton (1982); Olgren and Parker (1983); Pereyra (1982). Bates (1981, p230) stated that the two areas he believed to have been "very much neglected" were the analysis of students' reactions to different kinds of educational media and an analysis of the difference in cognitive processes when students learn from different media. Chute (1982, p301) asserted that "the resolution of a user's concerns regarding implementation of the innovation often requires a change in user attitude". Concerned specifically with teleconferencing, Pryor's (1985) paper took the position that the most effective behavioural change efforts would be based on scientific factors that determine behaviour. His work is a development from earlier approaches by taking perceived social pressure regarding the behaviour into account and basing the model on what is described (p200) as "a comprehensive theory of human behavior" which offers an understanding of behaviour in addition to prediction of behaviour by attitude.

Before this stage, research that demonstrated lack of difference in certain categories (see above) and the pervasive nature of the technology had contributed to an assumption that conventional teaching practice could be readily translated/duplicated by this medium. These factors inhibited paying attention to training those who would use it. Thus there is essentially no literature devoted to this aspect of teleconferencing until this period when a number of writers addressed the transition from awareness of the existence of teleconferencing to effective utilisation: see, for example, Lazar et al, 1983; Pereyra, 1982; Young et al, 1984. Certainly the connection between attitudes/behaviour and training seemed clear to expert practitioners:

...we're convinced that a well-designed training program provides an opportunity for individuals to deal with the changes in attitudes and behavior that must go hand-in-hand with the adoption of technological innovation like teleconferencing (Baird and Monson, 1984, p338).

LITERATURE FOR TRAINING

The literature evidences not only extent of use but also that teleconferencing is an ongoing part of delivery and support in many institutions. Such awareness has
prompted researchers to examine the various effects of teleconferencing both to maximise gains and to avoid potential problems (Neumann, 1985, p291). Literature concerning training is of interest in terms of attitudes, the processes it draws on and as indicating what elements are focussed upon and prioritised. Collins (1984, p164) typified the thrust of much of the literature when he wrote: "the main weakness of teleconferencing lies not in the technical equipment but in the preparation of the participants to undertake the roles and tasks that will be thrust on them in the teleconference".

The University of Wisconsin-Extension has extensive experience with training teleconference users. Baird and Monson (1984) believed that historically there had been a "casual" approach to training the teleconference user. In a paper advising how to tackle such training, they referred to their cumulative fourteen years of experience and the fact that nearly 2,000 people were trained by their national organization annually (p337). Earlier, Monson had collaborated with Parker (Parker and Monson, 1980) to produce *Teletechniques An Instructional Model for Interactive Teleconferencing*. They claimed (p5) that, even by that stage, the use of the telephone for interactive instruction was a relatively new concept.

Unlike the situation at Wisconsin, there are instances where other universities chose to employ external consultants. Cochran and Meech (1982) produced a brief conference report on a pilot program at Athabasca University to increase the communications skills of tutors. Derived from general techniques of people working in counselling situations, it was developed by American consultants. Boudle (1984), a resource management consultant, produced an article on 'coaching' teleconference users, claiming (p358) it was "a response to the user need for a sense of comfort, competence and well being in the teleconferencing environment".

There are also instances where professional associations, linked with tertiary institutions for delivery of programs by telephone, have published comprehensive practical guides to teaching in this way: see, for example, Bronstein *et al* (1982). Sometimes the training focussed on one critical need. Sumner (1985), of the University of South Dakota, was concerned to increase participation skills. Chute (1982) considered the selection of appropriate strategies for training teleconference presenters from the perspective of adaptation to change. He contended (p299) that change in a technologically sensitive system is a process rather than an event and thus developed a 'concerns based adoption model' to monitor the level of concerns of individuals involved in the change process.
Writing in 1984, Boone and Bassett (p371) claimed that there were plenty of glossy brochures and 'how-to' pamphlets, but very few systematic papers, journal articles or books devoted to training people in audioteleconferencing. Boone and Bassett were concerned, also, that the wisdom of conventional training manuals came from personal opinions rather than systematic observations and there was a lack of literature to support the effectiveness of such training programs. They advocated that empirical research regarding training effectiveness be undertaken (p375). As their contribution to the literature, Boone and Bassett selected seven national experts to list the top ten skills necessary for competent performance as an audioconference user and the five most common user mistakes. They found that their survey tended to validate the skills identified in the literature but admitted this was probably inevitable from overlap as their experts had also contributed to the literature.

Collins (1985) recognised that most studies in this area were of North American origin, but, given discernible differences in the UK experience with telephones and the extent of "phone phobia", there was a need to address the "paucity" of British research on the use of and attitudes to the telephone and link this to training. She referred to the area of user training at the Plymouth audioconferencing network as "largely untouched" (p97).

The Australian literature concerned with training does not appear to be extensive. Drawing on their considerable experience, in 1984 Lundin and Russell published a handbook for interactive audio. Impressively comprehensive in scope, but with limited discussion, the booklet's focus was to provide practical information. Deakin University (Thompson, 1989) published a handbook for teletutors that has been extensively used internally and also by several other national and international institutions. While again practical in intent, it drew on research and incorporated some of the features of scholarly writing.

**TELECONFERENCING SELECTION**

Dutton and Lievrouw (1982, p108) claimed that communications technologies are prominent among classroom innovations because "the educational process is fundamentally concerned with processing and transferring information". There has been some concern that restricting instruction purely to written materials is a

*Although there had been limited uses of the telephone for distance learning in the United Kingdom in remote locations (Winders and Watts, 1984, p169), the Plymouth Audioconferencing Network, PACNET, opened in 1984 as the first large-scale teleconferencing network project (Winders, 1988, p45) in that country.*
"considerable risk" for it can produce "an unwanted type of scholar: rich in knowledge, but lacking the means of making sensible use of this knowledge" (Chang et al, 1983, p114). There is also general agreement that learners perform better when the learning environment is diverse, using several channels of information transfer (Whiting, 1987, p42). It has been contended (Bates 1990a, p2) that academic models of media selection are not really appropriate for distance education, and the more pragmatic approaches that have been adopted are not usually rigorous enough to ensure the most appropriate mix of media. Hence another body of inquiry has been concerned with the practical issues of how to choose, plan and implement teleconferencing services. Much of the literature - especially the more recent - is concerned especially with computer, video and satellite teleconferencing, with audioconferencing relegated to a few sentences or (as with Shorrock, 1988) dealt with as audiotex*.

Of greater perceived use was the literature that dealt with the pedagogical and philosophical issues of media selection, than that which discussed the actual technologies themselves, and there is an obvious connection with research (see earlier discussion). However, as recently as 1994, Barrett and Jegede expressed concern that much of the recent discussions of technological development in distance education have failed to offer either a research perspective or theoretical base and the separation of technologists and educators (reflected in much of the published work) has meant that the research base has become "skewed" with the technology, itself, becoming the focal point. They contended (Abstract):

The choice and use of media and communication technologies in distance education have in the past been confused, often not influenced by potential educational outcomes, sometimes unmindful about the characteristics and cost effectiveness of the technology, and unresponsive to the learning needs of students. What appears to be needed is the formulation of a rational structure for the selection and use of interactive multimedia and communication technologies for distance education instruction.

Holmberg (1977, p51) wrote that it had "long been a dream of many educators to create a standard taxonomy" to ascribe specific functions and applications to specific media so

* Audiotex is explained by Shorrock (1988, p56) as a medium that uses the "humble telephone":

Behind audiotex is software that allows information from an on-line database to be passed to a voice-mail system, where it is then interpreted and delivered to the user over the telephone as a natural, spoken message. The voice-mail system is a computer that stores individual words, word groups, part or whole sentences, or complete messages, in digital form. When required, these are matched by the voice-mail computer to the information coming from the database, combined, and then relayed over the telephone.
that "a natural, logical choice could be made for each individual part of a course of
study". The literature suggests that others shared Holmberg's 'dream' and attempted to
fulfil it. Bretz's (1971) taxonomy of communication media concentrated on technical
aspects by classifying the media according to the kind of information they presented
(audio, visual; still, motion). Although he distinguished between a communication
medium and an instructional medium, his classification is of hardware and, incorrectly,
I feel, assumes these categories are discrete. In the instance of the telephone tutorial
there is an integral relationship between communication and instruction. Briggs (1970)
was prepared to acknowledge relationships, but his matrix (p155) to show the
relationship between media characteristics, learner characteristics and task requirements
is very basic and the later edition (Briggs and Wager, 1981) retains the same approach
with but minor refinements (p125). Heidt (1978), having identified more than twelve
media classifications, then argued that most are deficient in their connection with
theoretical models of teaching and learning and that applicability to problems of media
design and instruction are illusory. Similarly Bates (1982, p10) contended that there
was a lack of educational theory to provide clear guidelines. Schramm's (1977) seminal
text, *Big Media Little Media* was premised on beliefs that there was no overall
superlative medium of instruction; that no procedure could be applied automatically and
selection needed careful consideration. It appears then that Reiser and Gagné (1983,
p3) were justified when they claimed that, although much had been written about media
for instruction and their selection, there was no generally accepted model.

Reviewing media selection models, Clark and Angert (1981, p13) concluded that
available systems "reflect a preoccupation with technical considerations ... and are
relatively short on instructional design considerations". One text that does give primary
emphasis to instructional design factors is *Selecting Media for Instruction* (Reiser and
Gagné, 1983). The authors offered a model of media selection that focused on the
principles of human learning which affect decisions about media, to "insure" that the
conditions favourable for learning are assured. After these conditions are accounted for,
the practical factors (such as cost and availability) can be taken into account. Reiser and
Gagné correctly contended (p3) that, when instruction is premised on optimum efficacy,
the selection of media becomes a critical issue; that "logically, there should be a
medium, or a group of media, best suited to delivering a particular instructional message
[and where] students should learn more than they would if other media were used" (p6).
Such a viewpoint is very different from earlier writing (see above) that concluded that
the medium did not affect the learning experience in discernible ways. While
recognising that most instructional functions can be performed by most media, they
contended (p7) this in no way denies that in a given situation one medium, or combination of media, may be more useful than others.

As Bates (1981, p220) appreciated, the problem faced by teachers and course designers is often how best to combine and differentiate instructional functions between different media, while the bulk of experimental research has concentrated on comparing different media covering identical teaching functions. On the premise that "more flexible and relevant approaches to research are desperately needed in the field of educational media", Bates suggested (p232) the following basic criteria for judging reports on effectiveness: the reliability and accuracy of the information provided; the extent to which a report discriminated between different effects and explained adequately the results; the practical usefulness of the report for decision-makers; the extent to which the report was able to develop hypotheses about how or under what conditions people learn through media. In later writing, Bates (1990a, p2) focussed on interactivity as "one of the main criteria" for media selection in distance education and argued (1993, p233) that "it will be increasingly important to develop a good theoretical basis for the applications of media and technology in distance education as the new technologies come to play a more central role in distance education". Bates' approach has distinct differences from other writing in this area of the period, for instance, that of Hancock et al. (1984), where it is argued that the selection and utilisation of media in an educational teleconference should be based solely upon instructional principles derived from research on human perception and learning.

Technology can drive the pedagogy or it can be matched to it. Bryce and Stewart (1981), concerned with the "indiscriminate" way in which learning materials have been applied to the learning experience, claimed that the contribution of educational technology to the quality of the learning experience can be gauged, to some degree, by the extent to which educational technology has matched the presentation stimuli and learning style to the type or types of learning it is hoped will be facilitated. Percival and Ellington (1984) considered the nature of educational technology and concluded that most of the problems associated with its use are now educational rather than technological; this is the issue they sought to address. Sparkes (1984) also stressed pedagogic differences between media and his work is in the specific context of distance education. He advocated selection tailored for specific provision of a particular course rather than the adoption of a system. In a "greatly simplified model" he provided what he considered would be "a very helpful" guide to the cognitive content of different types of courses. The arbitrary nature of the categorisation and the admitted oversimplification lead me to question its value. Bretz and Schmidbauer's (1983) text,
Media for Interactive Communication, is clearly of interest. They furnished a media system model (p25) that, although again somewhat simplified, does recognise the need to distinguish between means of expression and media of communication. A chapter on audio systems and a second on augmented audio systems was included, on the basis that these represent the most common teleconferencing medium. Disappointingly, the information here is limited to description with virtually no connection to the theoretical introduction.

Notwithstanding the literature that seeks to provide a taxonomy of educational technology, Bates' (1982, p12) conclusion regarding telephone teaching still stands as an indication of criteria and direction:

...if distance education systems wish to provide a wide range of courses to students who are often scattered or isolated, telephone tuition is the only practical way of providing two-way, interactive tutorials.

Increasingly there is recognition that audioteleconferencing is typically used by tertiary institutions in conjunction with other telecommunications media: see, for example, Dao et al (1987) referring to the Télé-université, Quebec; Ellis and Chapman (1982) the University of Calgary; Shobe (1986) in reference to Memorial University. The Open Learning Institute (OLI), in establishing its delivery model, chose to use essentially print-based correspondence and telephone tutorials and de-emphasise the use of other methods (Farrell and Pacey, 1987). However, with the merging with the Knowledge Network with its mandate to establish, maintain and operate a network including cable, microwave, satellite and broadcast elements, telephone conferencing in that venue, as elsewhere, is increasingly seen as one of many approaches to open learning.

Van Seventer (1990, p12) recently expressed succinctly the current thinking regarding selection of media for distance education:

The search for a balanced mix of media is a quintessential feature of systems of teaching and learning at a distance. The application of modern information technology in education belongs to the core business of each institution engaged in the field. The field in general is developing from the original correspondence teaching methods through the stage of additional technical facilities towards an integrated multi-media approach in the setting of open learning.

* * * * *
The literature cited above indicates that many researchers have sought to understand the audioteleconference and to apply their understanding to assist administrators and practitioners. The scope of the research provides compelling evidence of the complexities that both challenge and confront those who work in this area. One aspect that the literature seems not to have addressed adequately is the elements of congruence and divergence when the teletutorial is compared with other forms of distance education. There seems to be an assumption that it is preferable and satisfactory to consider audioteleconferencing as a discrete element. Even where it is referred to as 'enhancing', what it enhances, and how and to what extent the teletutorial uniquely impacts on the educative experience are not explored. Johansen et al (1978, p75), considering the use of teleconferencing in postsecondary settings, called for a greater understanding of the learning process itself to inform educational applications. This review of the literature suggests that, many years later, there has been little qualitative study of the actual dynamics of the teaching and learning in the audioteleconference. For this reason the research I have undertaken is concerned to analyse the discourse of selected teletutorials to seek a greater understanding of the dynamics of the teaching and learning processes.

SECTION 3: ACADEMIC DISCOURSE

INTRODUCTION

Despite philosophical attention to the concept of intellectual discussion (see, for example, Gadamer, 1960:1975, Habermas, 1979 and Rorty, 1989), academic discourse seems not to have interested scholars. Tracy is one of the few recent writers who have been concerned to study what happens in the university as "an actual occasion of talk" (Tracy and Baratz, 1993, p300). As Tracy and Baratz (1993, p300) recognised, there are many kinds of talk that occur within the academy (they cite lecture talk, money and budget talk, problem-solving and decision-making talk), but they contended that none is as prized as participation in intellectual discussion. It is this talk that sets the university apart from other institutions in our society: "nowhere else is intellectual discussion valued as highly or enacted as frequently". Yet, while intellectual discussion is valued and encouraged by the university, it is nonetheless a problematic talk occasion. Not only does intellectual discussion occur less frequently than academics and students desire, but, when it does occur, it is often dissatisfying - "a talk occasion used to pursue non-intellectual agendas" (Tracy and Muller, 1993, p2).
Tracy and Baratz (1993, pp300-301) claimed that it is timely to take a careful look at intellectual discussion and that this can advance several scholarly agendas: it can extend our knowledge of everyday talk practices; it can enrich our perceptions of what it means to think; it can contribute to how, and to what degree, the larger institutional context impacts a talk occasion; it should have implications for the training and socialisation of students and it should enable us to assess general theories about interpersonal interaction. My study, albeit to a limited extent, strives to advance these agendas. While it is appreciated that the scope of the study is indeed restricted:

If one is strongly committed to the study of naturally produced discourse, then one accepts the practical constraints of small numbers of samples. Study of large numbers of instances in a detailed way is just not possible. (Tracy, 1988, p250).

In essence, it is assumed that in-depth knowledge of an interesting complex case will have implications for others (Tracy, 1991, p192).

Literature dealing with research that focuses on communication is clearly relevant to this study. This is a huge area that spans many disciplines. In an attempt to deal with it comprehensively, but efficiently, communication literature was read particularly to inform approaches to language and discourse analysis and language as used and studied in educational research.

**APPROACHES TO LANGUAGE AND DISCOURSE ANALYSIS**

A new area of scholarly inquiry, discourse analysis has emerged in the last decade as a centre of intellectual energy (Tracy, 1991, p179). Writing in 1985, Coulthard (p1) contended that the serious study of spoken discourse was only then beginning and in a special issue on Australian contributions to discourse analysis the editors, McHoul and Luke (1989, p323), asserted that, despite a number of different attempts to identify a mutual body of 'research interests', 'methods', 'materials' and 'levels of analysis', "what counts as discourse analysis remains problematic".

In the context of the literature of distance education, Juler (1990) considered that the more complex, interactive concept of discourse offered a fruitful metaphor for education in general, and distance education in particular, because it treats as important a number of factors which are frequently neglected in attempts to improve educational effectiveness. While Holmberg (1983) referred to 'guided didactic conversation', and 'dialogue' is used frequently in the literature, Juler considered it desirable to use the
term 'discourse' as it had the advantage of a range of uses: "from the completely non-
interactive monologue to the highly interactive group discussion in which the leading
role may shift and deliberate or spontaneous sub-group discussions may occur" (p25).

Scholars such as Derrida, Foucault and Habermas, have engaged in sophisticated ways
with the concept of discourse, revealing the significant ideological and analytical
complexities that attend it. How demanding discourse analysis may be is clearly
indicated by McHoul and Luke (1989). They sought (p325) to have discourse analyses
which retained what they discerned as the "analytical and counter-speculative aspects of
the Anglo-American tradition (particularly those around ethnomethodology, neo-
marxism, social semiotics and systemic linguistics)", which were both precise and
grounded in actual materials, and the "broadly post-marxist and post-structuralist theory
associated with current continental ideas about discourse".

While cognisant, therefore, that the treatment of discourse analysis in this dissertation
has not been conceptualised within such a complex frame of reference such as McHoul
and Luke offer, in my interpretation I have followed the more basic approach of
theorists such as Brown and Yule (1983). Commencing from the premise that "the
analysis of discourse is, necessarily, the analysis of language in use", they contended
(p1) that the linguist is concerned to determine the formal properties of a language while
the discourse analyst is concerned to investigate what the language is used for. Once
this is accepted, as Brown and Yule contended, it "cannot be restricted to the description
of linguistic forms independent of the purposes or functions which those forms are
designed to serve in human affairs" (p1). Thus 'discourse analysis' is used to describe
activities at the intersection of a number of diverse disciplines (Brown and Yule, 1983,
ppviii).

To discuss language involves not only how it will be analyzed (see Chapter 3: section
4), but consideration of language as written and language as spoken. Coulthard (1985,
p3) admitted that to maintain a distinction between spoken discourse and written text is
"by no means ... universally accepted" and that labels are always difficult. Vitaicolonna's (1988) chapter on 'text'/ 'discourse' definitions provides compelling
evidence of the extent of scholarly disagreement in this area.

One of the earliest and most influential writers to separate speech/utterance and
literacy/text is Olson (1977:1988) in his paper which examined the consequences of
literacy. He summarised (pp187-188) the differences in terms of three underlying
principles: meaning, truth and function and argued (p176) "there is a transition from
utterance to text both culturally and developmentally and that this transition can be described as one of increasing explicitness, with language increasingly able to stand as an unambiguous or autonomous representation of meaning". Ong (1982) developed an orality-literacy construct, claiming that "in the past few decades the scholarly world has newly awakened to the oral character of language and to some of the deeper implications of the contrasts between orality and writing" (p5). One of the consequences of a consistent and persistent privileging of literacy is that the printed word is viewed as the primary carrier of authoritative knowledge. Hence, although recent research in an educational context has questioned the assumption that the written word is a more reliable source of knowledge, a special status is conferred on the printed word with its permanence, while the spoken word is distrusted as transitory (Bowers, 1988, pp80-81).

Some scholars have been concerned with differences in structure and grammatology: see, for example, DeVito (1971). Tannen (1982, ppxi-xii) took the argument a step further with her claim that distinctions between orality and literacy on the one hand, and spoken vs written language on the other, do not suffice to characterise real discourse. The collection of papers she edited demonstrate that complexities found in discourse in context reflect not only its spoken or written mode but its interactive goals and structures. Thus genre, register, and speech event all play significant roles. Further, changing traditions of orality and literacy are intertwined with each other and with chirography, print and technology. Other studies on perceived differences between written and spoken language include those of Halliday (1985), Hammon (1990), Leed (1990), McLuhan (1962), Rubin et al (1986) and Yates (1992).

**LANGUAGE AS USED AND STUDIED IN EDUCATIONAL RESEARCH**

While it was considered necessary to seek at least some conceptual appreciation of discourse, communication within the context of education - most frequently that of the classroom, as far as the literature is concerned - needed special attention. As Barker (1982, p2) wrote: "The components and processes of classroom communication are similar to those in other settings, but the functions and patterns of classroom communication are unique".

Since the late 1960s, an increasing amount of educational research has been concerned with language in the classroom to the extent that "the 'language of the classroom' has
become so prominent a topic of academic interest that it is difficult to remember how recent that interest is" (Edwards and Westgate, 1987, p1). Pioneering work, such as that by Barnes et al (1969:1986), *Language, The Learner And The School*, was helpful in revealing characteristics of teacher-pupil interaction and their work was followed by many other educational researchers (see, for example, Adelman, 1981; Delamont, 1976; Edwards and Furlong, 1978; Stubbs, 1976, 1986; Walker and Adelman, 1975) as well as practising teachers who sought fuller awareness of the interaction that actually occurred within their classrooms.

It has been claimed (see, for example, Jones, 1988) that there has been theoretical work of quality, and such research has furnished plenty of evidence of how much talk goes on within classrooms, but there is far less analysis of the quality and nature of these exchanges, with little real change in the extent of productive talk that students actually engage in. Jones' writing, addressed particularly to practising teachers and drawing on case studies and his own teaching experience, specifically considered how talking contributes to learning. For Cazden (1988), the first of the three 'important educational questions' addressed in her study of classroom discourse was "How do patterns of language use affect what counts as 'knowledge,' and what occurs as learning?" (p3) With a background in psychology, educational anthropology, applied linguistics and classroom teaching, Cazden's writing integrates a number of useful perspectives and is illustrative of what can justifiably be regarded as a requirement to draw on varied and disparate areas of experience and expertise. Drawing on Australian classroom research is Hansford's (1988) *Teachers And Classroom Communication*. Aimed at assisting practitioners, his book incorporates a number of research vignettes. Although impressively comprehensive in its scope, it does not explore the more difficult and complex areas, tending to explain and simplify rather than question and analyze. In contrast, Young's (1992) *Critical Theory And Classroom Talk*, is exhaustive in its analysis and is written by a leading educational theorist. Probably most adverse of all for my study, is the work of the physicist, Lemke, who has written extensively about using language in the science classroom: see, for example, Lemke, 1990. "Viewing education as talk" (Lemke, 1985, p1), Lemke used methods of discourse analysis to study the social processes of the classroom to discern "what is going on between us" ie the interaction between teacher(s) and student(s) (1982, p264). Hence he was specifically concerned (1985, p2) with the way teachers and students make meanings together with language, what they are doing to one another through language and how language is integrated into the activity routines of the classroom.
Edited volumes that focus on the specific dimension of discourse in education settings (for example, Green and Wallat, 1981, *Ethnography and Language in Educational Settings* and Green and Harker, 1988, *Multiple Perspective Analyses of Classroom Discourse*) have offered a useful overview and varied perspectives and perceptions. Similarly a variety of informed comment from an educational psychology perspective, where there is special interest in cognition, has been obtained from such literature as the edited text by Wilkinson (1982).

The interaction analysed in much classroom research has been that of teacher-student, a reflection as much, if not more, of its dominant role in classroom discourse as of researcher interest. Where peer interaction has been considered it has tended to be when initiated by adult request (see, for example Allen, 1976). Writing in 1982, and focussing on how children turn to one another in the process of learning, Cooper et al (p70) pointed to the paucity of knowledge about spontaneous peer learning by children. A more recent text, which does give some explicit attention to peer interactions, is Cazden's (1988) *Classroom Discourse*. Peer-group learning has also received attention in the context of syndicate methods in higher education (see, for example Collier, 1983) and there is a clear connection with the literature of group-teaching methods (see, for example, Brubacher et al, 1990).

One of the few writers I have found who deals with academic discourse explicitly is Chafe (1982), who has collected data of formal spoken language from lectures and formal written language from academic papers as part of his investigation of differences between spoken and written language. His paper is restricted, however, to two self-evident conclusions: that speaking is faster than writing (and slower than reading) and that speakers interact with their audiences directly, whereas writers do not. More recently, Czubaroff (1993) developed the thesis that metatheoretical, value and policy issues are often more efficiently discussed in face-to-face conversation, for instance in colloquia and seminars, than in print. She contrasted the goals, modes of interaction and advocacy styles of oral and written scholarly discourse, illustrating the traits of oral and written discourse by an examination of a scholarly written text and transcriptions of scholarly spoken debate with the same academic. Although a brief and partial analysis, the paper is an illustration of recent concerns and is far more sophisticated conceptually than is Chafe's discussion.

The only extended scholarly treatise on academic discourse I have encountered is Grimshaw's *Collegial Discourse: Professional Conversation Among Peers*. Published in 1989, this 616 page text focuses on a doctoral dissertation defence that occurred in
the mid 1970s. Theoretically grounded and with detailed analysis, this study, written
by a sociologist, crosses disciplinary boundaries and is an authoritative and seminal
work. Tracy is a second academic who is particularly concerned with academic
discourse and she specialises in communication. As well as published work concerning
discourse (1988 and 1991), she has researched and reported on such issues as the
relevance of facework to intellectual discussion (1990); intellectual discussion in the
academy as situated discourse (with Baratz, 1993); identity enactment in intellectual
discussion (with Carjuzaá, 1993); intellectual discussion as a problematic achievement
(with Muller, 1993); the identity work of questioning in intellectual discussion (with
Naughton, forthcoming). The context for her recent work is the university postgraduate
colloquium and the approach she has taken to data collection, analysis and reporting has
some strong similarities with my own work. As I did not encounter Tracy's work until
late in the completion of this study, her writing, while an important addition to the
literature and of considerable relevance and interest, was, on the whole, affirmation of
my chosen approach.

SECTION 4: TECHNOLOGICAL MEDIATION

INTRODUCTION

Clark (1983, p445) claimed that media are "mere vehicles that deliver instruction but do
not influence student achievement any more than the truck that delivers our groceries
causes change in our nutrition". He went on to write, "Basically, the choice of vehicle
might influence the cost or extent of distributing instruction, but only the content of the
vehicle can influence achievement". Tueller (1991, p293) judged this to be a nice
summation and Taylor (1991, p5), again quoting Clark, considered that by this analogy
Clark had "highlighted the key issue that confounds much of the research". Such views
are embedded in what Bowers (1988, p26) claimed was a "widely held view within our
culture that technology is neutral". The telephone is clearly a 'delivery' technology but,
in contrast to the views of the above theorists, the thrust of this thesis is that it is not
separate and irrelevant, but integral to the communicative process. A related considera-
tion for this research is the mediation of the tape-recorder.

While there is a strong prevailing view that technologies are neutral with the nature of
the user and the nature of the medium separate and unrelated issues, several decades ago
Ellul (1962) concluded that it was naive to say that technology is neutral, for the good
and bad effects are, in fact, simultaneous and inseparable. As Dizard (1982, p13)
contended, Ellul's "sobering catalogue of ... paradoxes" (Ellul, 1962, p394), applies "with particular sensitivity to the spread of communications and information technologies". A decade earlier Heidegger (1954, p4) had written:

... the essence of technology is by no means anything technological. ... Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to do homage, makes us utterly blind to the essence of technology.

Ihde (1979, 1982, 1990) sought to demonstrate that the medium transforms the communication situation in a unique way. He made the notion of non-neutral 'transparent' media problematic (as, for example, do other recent writers such as Bowers, 1988; Street, 1984 and Ulmer, 1989), and warned (1979, p40) against both the 'subjectification' of the instrument as "a mere neutral tool" and the 'objectification' of the instrument that animates and thus reifies it. Ihde gave explicit attention to the telephone and its transformation of human dialogue (see, especially, Ihde, 1982, pp62-65). Rather than being neutral, it is an active force with manipulative features that can facilitate as well as restrict communication. When this is appreciated it is clear that, while people make selections about utilisation and application, others have designed and constructed the technology, itself, in such a way that there is a selection of what sensory aspects will be amplified or reduced. As Staudenmaier (1985, p165) wrote:

... technological designs cannot be meaningfully interpreted in abstraction from their human context. The human fabric is not simply an envelope around a culturally neutral artifact. The values and world views, the intelligence and stupidity, the biases and vested interests of those who design, accept, and maintain a technology are embedded in the technology itself.

In the case of the telephone, the 'selectivity' of technology (Ihde, 1979, p54) means that voice is amplified while the visual, tactile and olfactory senses are diminished.

Rejecting "the use/abuse model that represents technology itself as neutral, and asserts that it is the human application of technology that determines whether it has beneficial or destructive effects", Wajcman (1991, p162) ) adopted a "social shaping approach" - one that "insists that technology is always a form of social knowledge, practices and products" (p162). Franklin (1990, p17) found that defining technology as 'practice' "shows us the deep cultural link of technology", allowing one to talk of the organisation of work and of people (p12). Clearly, it is the multifaceted nature of technology, its
drawing on interrelated and interconnected elements, that challenges any attempt to understand it in its complexity.

Ulmer (1989) contended that people "will speak and write differently within the frame of electronics" (p2) and his 'teletheory' attempted to describe the nature of that difference. I agree with Ulmer, that in any consideration of academic discourse in the age of new technology it is imperative to contemplate not only the technology, but also the ideology of the subject and the forms of institutional practice.

**TELEPHONE-MEDIATED CONVERSATION**

In this research all interviews with students, some interviews with tutors and all the teaching and learning sessions have been conducted by telephone. While there has been concern with technical features and some awareness and discussion of implications, the interface between technology and the communicative experience, itself, seems not to have been a focus of scholarly concern. The distance education literature reveals but occasional interest and comment. Sparkes (1984), for instance, offered a chapter titled "Pedagogic Differences Between Media" and Bates has addressed these concerns: most recently in the conference paper "Interactivity As A Criterion For Media Selection In Distance Education" (Bates, 1990a) and the chapter "Theory and practice in the use of technology in distance education" (Bates, in Keegan, 1993). Laurillard (1993), in the specific context of university teaching, has considered students' needs from educational technology and has offered an analysis of teaching media and design methodology as a framework for what she considers represents the effective use of educational technology. There appears, however, to be a lack of sustained discussion that is theoretically grounded and which synthesises an analysis of the many complex and interrelated elements that form the technologically mediated communicative experience.

In more comprehensive texts on audioteleconferencing, generally at least a chapter is devoted to description of the technical attributes of various audioteleconferencing systems: for example, Pinches, 1975 and Winders, 1988. Often (as with Robinson, 1984) 'the technology' is handled by simple description and in much of the literature the telephone is treated generically, ignoring the subtle but influential consequences of different systems and their locations on the communication and the apparent consequences for users from developments in audio technology.
It is indisputable that the denial of visual cues impacts on the experience of telephone communication and this is generally seen as the distinctive element of audioteleconferencing. Whether that exclusion is deprivation or enhancement (for it is not neutral) depends on complex variables and has been of concern to both researchers and practitioners. Because there is a loss of such signifiers as general appearance, expression, posture and gaze direction, the lack of non-verbal indicators is customarily interpreted as deprivation; a frustration to many audioteleconferencing practitioners and regarded as a severe limitation of the system. Recently, however, the literature suggests some modification of this stance. As the restriction to the audio channel is such a critical aspect of audioteleconferencing it has been discussed more fully below, most especially in Chapter 6.

In the context of interviewing, some writers have recognised that the apparent weakness of the telephone, its impersonality, can be a strength in that the visual barrier of the telephone can be perceived as protection with respondents prepared to be more revealing than they may have been in a face-to-face situation: see, for example, Metzler, 1977, p89. Writers such as Hyman et al (1954: 1977, p146), who were concerned about the dangers of interviewer bias, could endorse the use of the telephone and see it as productive that the telephone interview kept "the felt presence of the interviewer and interaction between him [sic] and the respondent to a minimum". Similarly Thompson (1984, p109) contended that telephone conversations have been attractive to some discourse analysts because of the advantage of excluding visual cues.

Related to channel limitation, another perceived disadvantage of using the telephone is that it appears to limit both complexity and length. This has been considered by such writers as Lavrakas (1987, p12) who set an outer limit of thirty minutes for telephone interviewing. Costs (especially when calls are interstate or international) act as a further time control and to this extent are part of the mediating influence of the technology.

Clearly where the technology obtrudes most fully into the communicative experience is where there are technical difficulties. Their impact on the communicative experience should not be underestimated and this is a relevant and significant issues to consider: see Chapter 6.
THE TAPE-RECORDE R AS A MEDIATING FACTOR

For both interviews and teaching/learning sessions, the instrument used to record the data has been the audio tape-recorder. In the early literature of telephone calls (see, for example, de Sola Pool, 1977) there are no quotations from telephone conversations. In contrast, more recent work (such as Hopper, 1992) can incorporate excerpts as evidence/illustration because of the use of the tape-recorder. In this study, rather than regarding it as neutral, an essentially irrelevant and disregarded part of the situation - of no greater or lesser consequence than any element of the setting - the tape-recorder has been foregrounded as a mediating factor of particular significance.

How the tape-recorder functions is dependent not only on its technical attributes but also on the use made of them. Hence, appreciation of both the context in which the tape-recorder is used, as well as the practice - the social way(s) in which the technology has been shaped - helps inform our understanding of its mediating function. Drawing on an instance where the tape-recorder had been used inappropriately (an 'ordinary' tape-recorder and an 'omnidirectional microphone' had been used in a large auditorium), Ihde (1979, pp43-44) used the tape-recorder as an example where "the reproduction (text) which is produced through the instrument purports to be a reproduction of what is independently experienced without the mediation of the instrument". He justified his use of the word 'purports' by pointing out how the tape-recorder, unlike the original listener, is unable to differentiate between the significance of external stimuli and so is likely to reproduce what have been barely noticed background noises (such as coughs and paper shuffling) while the speech, itself, that had been easily heard by the ordinary listener was barely heard at all: "an opacity between instrument and its referent has occurred such that even a 'reading' of the 'text' becomes difficult if not impossible" (p44). Further, as Schwartz and Jacobs' illustration (1979, p44) revealed, even when the equipment is adequate, "words uttered during a conversation will not stand still on a tape so that they can be recovered in the same way at each listening, independent of time lapse, the particular listener, or the social situation in which the listening is done".

Generally advocated as a useful tool, Douglas (1985, p83) is one of the few practitioners to see it as problematic:

The recorder is both a reassurance of the seriousness of your pursuit and a brutal technological reminder of human separateness that undermines the intimate communion you are trying to create. The recorder is a double-edged reminder and is thus quite problematic. But it is such a powerful weapon in the fight for truth that it must be used in all situations where it is allowed ...
The role of the tape-recorder has subtle differences in a telephone, as distinct from a face-to-face, situation. While in both cases its presence is initially foregrounded for ethical reasons, once approval to tape has been granted - and this occurred on every occasion without demur - in a telephone situation the respondent cannot see the equipment and, unless technical factors obtrude, the telephone remains the dominant mediating technology. In face-to-face situations, while researchers and practitioners such as Gordon (1975, p275) and Metzler (1977, p126) considered it preferable to set the machine out of sight, my approach to its positioning is different. Rather than concealing it, I ensure that it is readily accessible to all participants as I feel this is more honest and evidence of the non-threatening and positive element of the recording process. Those being interviewed are assured that they are free to turn the tape-recorder off at any stage. In the telephone situation, while respondents received a similar assurance, the control of the equipment was clearly the province of the researcher and it is probably not surprising that there were no requests. On the few occasions when the offer to turn the tape recorder off was taken up in the face-to-face situation, this usually occurred after several interviews and there was an acknowledgement that the conversation was a digression of mutual interest. Very occasionally, however, the silencing of the tape-recorder has been a prelude to a discussion of something the respondent considers is delicate. When this occurred, the intention was signalled by the body action and, with the language used, alerted the researcher to their attitude towards what was being revealed.

Such actions suggest that respondents consider that particularly sensitive issues should not be tape-recorded as this represents an indisputable record of what they have said. As Minichiello et al (1990, p135) recognised, "there is the feeling that once something is on tape it is indelible". Hence there is a differentiation between what is expressed 'on the record', as it were, and what is said privately and confidentially. Although what was said tended to be personal impressions of peers and institutions, having control of the tape-recorder meant that there was a qualified sharing, a sharing that reinforced a sense of openness and trust that developed with the interviews. That the tape-recorder was turned off so rarely, leads me to concur with Douglas (1985, p85) that the recorder "will become taken for granted and fade from consciousness". I, too, found that, as bonds were established over a series of interviews, people were prepared to speak openly. Metzler (1977, p125) contended that the presence of a tape-recorder is not the determinant of whether or not a person being interviewed will speak candidly. He wrote:

Far from intimidating the source, the recorder permits vastly greater rapport. Freed of the cumbersome mechanics of notetaking, reporters find that they can
concentrate for the first time on the fine nuances of conversation. They begin to ask more sensitive and perceptive questions.

My experience with taping interviews has led me to conclude similarly: that I am freer to concentrate on what is being said rather than on struggling to record it accurately, and, I believe, am more responsive. Unlike the reservation expressed by Minichiello et al (1990, p135) I did not find that use of a tape-recorder caused loss of concentration, nor did it seem to inhibit the communication for either interviewer or informant.

Gorden (1975, pp274-275) identified situations where he believed the tape-recorder to be particularly advantageous: where the information is complex; the flow of relevant information is rapid; there is a wish to explore unanticipated types of response and there is uncertainty of relevance; there is significance in the precise words used and the order in which ideas are expressed; the sequence of topics in unstructured; there is a desire to optimise personal relations. Each of these indicates significant ways in which the tape-recorder shapes not only the interview (and to a lesser extent the teaching and learning) process but the way the data generated are handled.

In the context of a hermeneutic paradigm and with special interest in academic discourse, the only feasible way of attempting to gather 'complete' data of the telephone tutorials was by audio tape. The attempt was compromised because personal and technical failures meant that the entirety of each interview and teletutorial was not necessarily recorded. With this important reservation, the tape-recorder did allow a greater completeness of text, offering security to both respondents and participants in the teletutorials that what was spoken was as fully and accurately recorded as the equipment allowed. Although selection was an inevitable consequence, because the selection was not made at the moment of the interview or teletutorial but after considerable reflection and what was selected for quotation in this dissertation has been retained in its spoken form, the tape-recorder has proved invaluable in allowing the speakers to communicate with the reader in their own voices to a much fuller extent than if the sessions had not been recorded and if the written transcripts had replaced the spoken utterances (see Chapter 4; section 4).

The tape-recorder has, however, shaped the research in a further manner. Grimshaw (1989, p84) recognised that 'microanalysis' through various ways of recording data could influence interpretation. He wrote:

The analyst, in contrast [to the participant], is able to study and restudy the behavioral record, to look backward and forward in the text, to review the
historical-ethnographic record and, most critically perhaps, to systematically hypothesize, test, contemplate, and accept or reject different interpretations. Some specialists, e.g., therapists, can do something more closely approximating this at conversational speed; most of us cannot.

For both interview respondents and teletutorial participants, the spoken utterance is heard once. For the researcher, the tape-recorder opens the possibility of multiple listenings as well as manipulation. In the teletutorial, although the technology may occasionally impede precise replication of the original utterance, such factors as the pacing and the volume are outside the province of all but the speaker and even the speaker is constrained by social and personal speech habits. While, again, the technology may occasionally distort sound quality, the researcher can deploy that technology to enhance. Utterances can be slowed and tone and volume manipulated; definition assisted by the use of head-phones. Sections can be played and replayed, not only at the one time but over very extended periods and in a variety of contexts. In the teletutorial and in the audio-tape of the teletutorial what is said and heard is judged by each individual and, as discussed later (see Chapter 3 and Chapter 4), there is no absolute interpretation. However, in the teletutorial the researcher is not actively engaged in shaping the discourse and has no investment in the outcome, as do the participants. For them the experience occurs once and as a whole, with their own participation usually the dominant factor. With the audio-tape, not only are there opportunities for multiple listening, but, in the passive role as listener, the analyst is freer to concentrate attention on what is being said rather than - as is frequently the case for participants - on what he/she will say. Moreover, with the audio-tape it is possible to isolate specific aspects for close attention before an interpretation is made. For the participants the interpretation that will influence the next interaction is immediate. Hence it is more likely that the analyst can give attention to the subtleties that in normal conversation are frequently unrecognised, or only appreciated later after reflection, generally in a different context. For these reasons there is a tension between the function of the technology of the tape-recorder to furnish the research data and the function of the same technology to manipulate that data.

In the context of teaching and learning Walker (1993, p28) claimed that the world of the recorded image and/or sound was very different from 'the world of broadcast'

... not least because it can be retrieved, manipulated, discussed, dissected and deconstructed. In the process the nature of time changes, ceasing to be linear and metric, progressing from determinancy to uncertainty and instead becoming fragmented, branching and polychronic.
Here it is contended that experiencing the teletutorial as an audio tape-recording is a qualitatively different experience from experiencing it as an audioteleconference. It is theorised that the experience of the researcher is significantly altered by the mediation of the tape-recorder and this experience should not be discounted.
PART II:

METHODOLOGIES
Chapter 3

THE CONCEPTUAL/THEORETICAL BASE

To learn to see not only what we do but also what structures what we do, to deconstruct how ideological and institutional power play in our own practices, to recognize the partiality and open-endedness of our own efforts, all of this is to examine the discourses within which we are caught up. ... [We] demonstrate that what has seemed transparent and unquestionable is neither. (Lather, 1989, p20).

The intention of this chapter is to consider four issues that have been selected as having fundamental relevance to the methodologies of this study: the potential and conventional separation of theory and practice - what I have termed the 'pure/applied binary' - ethnography, hermeneutics and orality. In each instance I have related apposite scholarship to this study. The substantive method has been four case studies set within the ethnographic tradition. The philosophical context is that of hermeneutics. The discipline of sociolinguistics is also relevant for, while the study incorporates written data (see Chapter 4), technologically mediated spoken language as used in tertiary teaching and learning is the focus.

SECTION 1: THE PURE/APPLIED BINARY

Research is conventionally seen as either 'pure' or 'applied' - or, to use Dockrell's (1980, p12) image, like Janus it has two faces: a contribution to understanding or a guide to action. Although shown to be unsatisfactory because an artificial division between different fields of investigation is implied, such "simple dichotomies ... abound in the world of social and educational investigation" (Burgess, 1985, p1).

'Scholarship', allied with the former category, tends then to be clearly demarcated from 'practice', the province of 'applied' research. Calvert (1989, p38), while distinguishing between the two, followed what she discerned as a trend in higher education when she set the oft-relegated 'practice' to a position of power and pre-eminence. She wrote:

By clearly placing scholarship in the service of practice, I am emphasizing that practice will be the ultimate judge and that scholarship must be perceived to be useful.
The impetus for, and origin of, this research belongs unambiguously in the provinces of practice and application. The intent then was to evaluate the teletutorial program at Deakin University (at that stage a single campus institution) so that research could inform practice. Thus the initial study involved amassing information as a base from which an examination of current practice could be made. When this was completed, an 'interim' report was released and a handbook published (Thompson, 1989). Using Calvert's criterion quoted above - "scholarship must be perceived to be useful" if it is to have any impact on the practice of distance education - the widespread use of this research to inform teletutorial practice (both at Deakin University and at several other national and international institutions who have adopted the text’s guidelines) indicates that, in this instance, practice judged the research favourably.

There are, however, claims that distance education has been unduly focused on informing practice and there are recognised limitations to such an approach to research. Coldeway (1982, p30) wrote:

Rather than being designed within a particular theoretical framework, most research on distance learning attempts to find solutions to perceived problems. While approval for this approach from administrators and sponsors may be easier to obtain, the results are rarely generalizable.

Hence he saw a need to "bridge the gap between the need for practical information and the desire to contribute to a comprehensive theoretical framework" (p30).

This raises for me two particularly significant issues: the assumption that generalizability is a concomitant of effective research and that a bridge can be constructed between theory and practice - between scholarship and application.

Given that case study research, which is fundamental to this study (see, especially, Chapter 4: section 1; Chapters 6 and 7), has been criticized "both methodologically and in relation to generalisability and theory development" (Morgan, 1991, p23), it is necessary to consider these issues.

While case study, itself, is not new, the use of case study in education is relatively recent and its specific relevance to education has not been explored to the same degree (Simons, 1980, p1). For Kemmis (1980), who writes of "the imagination of the case and the invention of the study", cases are 'created', 'brought into being' by the case study worker who "makes the case a case by carrying out the study", attempting to "transform the situation as an object of perplexity into an object of understanding" (p117). He wrote (p119):
... we must find a perspective on case study work which preserves indeterminacy, which countenances both the objects and methods of case study work, and which reminds us of the dialectical processes of its construction.

Cohen and Manion (1980, p99) claimed that 'the purpose' of case studies is to probe deeply and analyse intensively the constituent elements of the unit researched "with a view to establishing generalizations about the wider population to which that unit belongs". Yet case study research has been criticised on the grounds that "very often case studies are not representative and hence the results apply only to that group and to the specific situation involved" (Entwistle, 1973, p20). Atkinson and Delamont (1986, p249), writing some thirteen years later, expressed similar serious reservations:

If studies are not explicitly developed into more general frameworks, then they will be doomed to remain isolated one-off affairs, with no sense of cumulative knowledge or developing theoretical insight.

Moore (1991) explicitly connected knowledge with theory when he contended that theory is the summarising and synthesis of what is known about a field; it is "the reduction of our knowledge to the basic ideas, presented in a way that shows their underlying patterns and relationships". He continued:

Research that is not grounded in theory is wasteful. It might solve an immediate problem, but it doesn't fulfill its promise. Relating it to theory, however, increases its ability to solve other problems in different times and different places. In our theorizing we rise above immediate and local concerns and find out what is general and long lasting. This gives us a broad perspective that enables us to analyze the particular instance more effectively...

While Morgan (1991, p26) found the relegation of much case study research to "one-off affairs" a "salutary" criticism, advocates of case study research have contended that "the portrayal of the idiosyncratic and the particular as legitimate in themselves" is valid (Walker, 1980, p33). However, there is concern that "instance and abstraction go hand in hand in an iterative process of cumulative growth"; the dominant research aim being "to reveal properties of the class to which the instance belongs" (MacDonald and Walker, 1974: 1977, p182). Hence a case study, which MacDonald and Walker define as "the examination of an instance in action" (p181, my emphasis), "can generate a theory as well as test one". Similarly, Adelman et al (1980, p49), while concurring that "case study research always involves 'the study of an instance in action'"; stressed the relationship of the 'instance' to the 'class' from which it is drawn: "case study itself is about moving between the general and the particular" (p47). Although this does not necessarily satisfy Atkinson and Delamont's criticism referred to above, in that
connections may not necessarily be made with earlier scholarship and research, it does indicate the potential contribution of case study to the cumulative development of knowledge.

So, although critics of case study research have relegated it to concern merely with the individual, a discrete entity, practitioners have stressed its umbilical connection with the general: the class from which it has been drawn. As individual researchers build knowledge and understanding in a cybernetic fashion, then it is possible to move to qualified generalizability. To write of 'generalizability' in this way is clearly not in a statistical but in a phenomenological sense: "This type of research aims to raise people's awareness of activities and events in particular settings so that links and parallels can be drawn to inform practice in other settings and new contexts" (Morgan, 1984, p265).

Despite its ambiguities, its imperfections and its simplifying interpretations, case study can create conceptual stabilities which are platforms for understanding and for action. The authority of case study work, like the authority for all science, does not derive from theoretical or logical elegance. It derives from the purchase it gives us on the real world of action and experience. (Kemmis, 1980, p131)

For this study, the ultimate interest is in the generalizable, but the initial search is for the understanding of the particular cases, in their complexity. As individual case studies can help us perceive patterns, so individual case studies can contribute to theory. Walker (1980, pp33-34) wrote, "the case study may contribute to theory, for it promises to reveal how theoretical abstractions relate to common sense perceptions of everyday life". While I accept the thrust of Walker's argument, I concur with Lather (1986b, p269) that one should be profoundly sceptical of appearances and 'common sense' and hence I feel that Walker's qualification is unduly restrictive. Moreover, if, as in this instance and as discussed below, the research has as one of its aims the empowering of those involved with it, then:

In accordance with the emancipatory knowledge interest, theory should aim at heightening the participants' consciousness and thereby enlarge their chances of a more reflected-upon and better choice of action. (Marton, 1979, p13)

I believe that, in ways such as this, a 'bridge' can be constructed between theory and practice - between scholarship and application. 'The problem' unifies theory and practice. Where inquiry is motivated by a problem, there is no question about the relevance of its product - knowledge or theory - to practice (Sherman and Webb, 1988, p16). 'The problem' studied here is how tertiary teaching and learning are affected when the spoken discourse is technologically mediated. Substantively, 'the problem'
has been considered in relation to distance education students who engage in oral interaction by telephone, in what we have termed teletutorials.

SECTION 2: ETHNOGRAPHY

The aim of ethnography is to understand (Fetterman, 1984, p13): "ethnographic significance is derived socially, not statistically, from discerning how ordinary people in particular settings make sense of the experience of their everyday lives" (Wolcott, 1988, p191). In recent years, ethnographic research has been used in inquiries into education to the extent that Woods (1988, p90) claimed that it is now the most commonly practised qualitative research method in British educational research. Meaning, literally, a picture of the 'way of life' of an identifiable group of people (Wolcott, 1988, p188), ethnography is traditionally associated with fieldwork with studies labelled as 'ethnographic' frequently being partial translations of the concept. Thus, although the groups of students and staff participating in teletutorials are a legitimate culture group, as any group of people who share knowledge, customs, objects, events, and activities is considered a culture (Spradley, 1980, pp5-9), I would not presume to call this study 'ethnographic' because of its limited nature.

Probably, though, my most significant reservation about ethnographic studies is that their focus tends to be on lengthy, complex descriptions of what things are and how they got that way: "ethnography does not point out the lessons to be gained or the action that should be taken" (Wolcott, 1988, p203). This is antithetical to an approach that attempts to apply, to inform, to assist with development. Another way in which this research does not fit the ethnographic model is that ethnographers are careful to employ non-interventionist methods (Sherman and Webb, 1988, p6) and, as discussed below, this has not been the approach I have employed.

There are, however, other qualities of ethnographic studies that I find particularly appealing and would wish to bring to this study.

In a classic directive, Malinowski (1922, p476) wrote:

"The final goal, of which the Ethnographer should never lose sight ... is, briefly, to grasp the native's point of view, his [sic] relation to life, to realize his vision of his world. (Emphasis in original)"
This emphasis on appreciating what those being studied say, think and perceive is an integral aim of this research. It is in accord with a theoretical orientation to research into learning that takes an experiential perspective by focusing on the world of the learner (Marton, 1979, p1). Such an attempt to confront empirical reality from the perspective of those being studied has been called the "generic qualitative approach" (Campbell, 1988, p59). Another quality of ethnography is that it is premised on developing understanding by discovery, rather than verification of a predetermined idea, and this is a tenet of this study.

While there is no technique that, of itself, signals ethnography, participant observation is customarily identified with it. One advantage that accrues to the research from this approach is that the quality of the data is not entirely dependent on the respondents' written and verbal skills and/or their interest in the research etc. but the researcher has shared experience with the group. Thus, with this research, as well as gaining the perceptions of the participants, I was able to listen to the teletutorials and to that extent - albeit a limited one - the experience was shared.

Hammersley (1990b, pp1-2) listed five features which characterised ethnography as a method of social research: the studying of people's behaviour in everyday contexts; the gathering of data from a range of sources, with observation and/or relatively informal conversations the main ones; an 'unstructured' approach to the data collection with its collection in as raw a form and as wide a front as possible; small scale focus; an analysis of the data that involves interpretation with quantification and statistical analysis playing a subordinate role, at most. While I would hesitate to call this an 'ethnographic' study for the reasons stated above, this study fits very comfortably with the tenets of ethnography as delineated by Hammersley. His fifth point:

The analysis of the data involves interpretation of the meanings and functions of human actions and mainly takes the form of verbal descriptions and explanations ...

links ethnography with both hermeneutics and the spoken utterance that is the focus of this study.

SECTION 3: THE HERMENEUTIC PARADIGM

Hermeneutics ... is for the hardy. It is a radical thinking which is suspicious of the easy way out ... Hermeneutics wants to describe the fix we are in, and it tries to be hard-hearted and to work "from below." It makes no claim to have won a transcendental high ground or to have a heavenly informer. It does not
try to situate itself above the flux ... but rather, ... to get up the nerve to stay with it. ... This hermeneutics exposes us to the ruptures and gaps, let us say, the textuality and difference, which inhabits everything we think, and do, and hope for. (Caputo, 1987, pp3, 6)

I take cognisance of the view that students of philosophical hermeneutics have always insisted that hermeneutics has nothing to do with creation or validation of specific methodologies of any kind (Mueller-Vollmer, 1985: 1986, px). While Mueller-Vollmer warned against seizing on hermeneutics as a 'new and useful paradigm', nonetheless he recognised that to deny an active reciprocal relationship between hermeneutics and the development of methodologies is unrealistic as it already exists.

The etymology of the term 'hermeneutics' obviously relates to Hermes, the messenger of the Greeks. One attraction for this research is its affinity with communication. As Mueller-Vollmer explained (1985: 1986, p1), to deliver the gods' messages, Hermes had to be conversant in their idiom as well as that of the mortals who were destined to receive the message. Thus, before he could convey that message, his task was to understand and interpret it for himself. The words 'understand' and 'interpret' are fundamental to the intent of the development of this study, as is the recognition that what this entails is highly complex and problematic. As Thompson (1984, p9) appreciated:

The tradition of hermeneutics reminds us that the object of our investigations - utterances, expressions, texts - is a pre-interpreted domain. It reminds us, that is, that the forms of discourse which we seek to analyse are already an interpretation, so that to undertake an analysis of discourse is to produce an interpretation of an interpretation, to re-interpret a pre-interpreted domain. (Italics in original)

A "remarkable feature of twentieth century thought" is its "convergence on the phenomenon of language" (Thompson, 1981, p214). Hermeneutics has always been associated not only with interpretation, but with the interpretation of text; with language: "speech - whose interpretation was always hermeneutics' precise goal - lies clearly at the center of current philosophical reflection" (Howard, 1982, pp2-3). As this study has developed, its focus has progressively become one of concern with spoken language, with discourse, in the context of teaching and learning and with the technological mediation of the telephone. The 'texts' in this instance thus become the tutorials and the interviews, but I was concerned that the pervasive culture of literacy did not preempt concerns with oracy. Not only were there serious reservations about the practical problems of transcription (see Chapter 4: section 4), restructuring spoken utterance as written retains the normative paradigm of the written text. Hence, although quotation
from tape-recorded material is brought into this thesis to a substantial extent, significant passages from both interviews and tele-tutorials have been retained in their oral form.

Hermeneutics has grown from a subsidiary role in theology covering the study of methods for the authentication and interpretation of texts to "a general name for current studies favoring the hypothesis of something special in the epistemology of 'understanding'" (Howard, 1982, pp1, 3). With twentieth century philosophers such as Gadamer and Ricoeur, it has taken on new and fruitful elements of reflection and no longer is preoccupied with methodologism as were the nineteenth philosophers such as Schleiermacher and Dilthey (Howard, 1982, pp1-3). Significantly for the predilections and beliefs of this researcher, hermeneutics:

... accommodates an approach which is exploratory in intention rather than goal-oriented; which gives positive recognition to the subjective prejudice and tacit knowledge of the researcher; and which acknowledges that the direction of the research is propelled by a dynamic interaction between the researcher and the research setting. ... The concept of the hermeneutic circle, or spiral as some authors describe it, ... illustrates ... the concept that the part is always to be understood in relation to the whole. (Grace, 1990, p23)

Each of these points will be considered individually, although the discussion will reveal that the categories are not necessarily discrete.

THE ACCOMMODATION OF AN APPROACH WHICH IS EXPLORATORY IN INTENTION RATHER THAN GOAL-ORIENTED

The word 'research' comes from the Latin re-circere, 'to go round again'. This encapsulates for me one critical aspect of the methodologies I have espoused.

In earlier studies within the Faculty of Education, I was particularly responsive to Scriven's (1971, 1972: 1977) writing on goal-free evaluation where the significance of unintended and unknown objectives is recognised. Hence, when two decades later, as a researcher rather than a practitioner, I came to read Parlett and Hamilton's (1972: 1977) seminal work on illuminative evaluation where they outlined a 'social anthropology paradigm' that accommodated such outcomes, I was both reassured and challenged. They wrote of organising their work heuristically, with the researcher progressively focusing and redefining the areas of study as the study unfolds, in the light of accumulating experience and as the crucial issues-to-be-studied become uncovered. Eclectic, adaptive and responsive to individual research milieu, there is no
methodological package premised. In many ways the antithesis of the linear, clearly
defined hypothetico-deductive method, a variety of methods will be employed and the
research design will not be fixed at the outset but will evolve. There is "an emphasis on
interpreting, ... on discovering patterns of coherence and interconnectedness that
usually go unnoticed" (Hamilton et al, 1977, p168). This is similar to Hammersley's
(1990b, pp1-2) characterisation of data collection within an ethnographic tradition:

The approach to data collection is 'unstructured' in the sense that it does not
involve following through a detailed plan set up at the beginning; nor are the
categories used for interpreting what people say and do pre-given or fixed.

While I brought to this study an interest in how the technology of the telephone would
influence the learning of the students and the teaching of the academics I would
research, with increased experience and developing awareness I needed the flexibility of
an evolving, rather than a circumscribed, model. As Connell (1985, p39) wrote:

A creative research project (as opposed to a research exercise following well-
established methods) involves a dialectic - an argument between the general
conception and particular investigations, a back-and-forth between data and
theory, between formulation and critique. This dialectic has to follow its own
logic.

In this context, the idiosyncratic response was not cause for alarm, as it did not fit a pre-
determined outcome; rather, it was cause for delight as it forced new thinking and
influenced new approaches.

THE GIVING OF POSITIVE RECOGNITION TO THE
SUBJECTIVE PREJUDICE AND TACIT KNOWLEDGE OF THE
RESEARCHER

In their first paper, where they discussed the problems and possibilities of illuminative
evaluation, Parlett and Hamilton (1972, p18) noted that concern over the 'subjective'
nature of the approach "is usually foremost". Although conceding the possibility of
"gross partiality" on the part of the researcher, they contended that any research is
vulnerable, with none immune to prejudice, bias and human error.

While Myrdal (1969, passim), in similar vein, claimed that value free research is an
impossible condition, writing explicitly about hermeneutics, Habermas (1970: 1986,
pp295-296) contended:
Hermeneutical understanding cannot enter into a question without prejudice; on the contrary, it is unavoidably biased by the context in which the understanding subject has first acquired his schemata of interpretation.

Writers such as Hesse (1980), while recognising that value-neutral research is unrealizable, expressed concern with its negative consequences for research, such as self-deception. To Popkewitz (1984, p21), the commitment to a notion of objectivity has been deleterious to educational research through its encouragement of researchers to focus on those aspects that can be numerically expressed: "this superimposing of technique over theory needs to be considered as contrary to good science". He contended (p1) that objectivity has been narrowly defined and deflects us from understanding:

Underlying the practice of social research are assumptions about society. These assumptions refer to the nature of social control, order, and responsibility. Far from being neutral, inquiry is a human activity which involves hopes, values, and unresolved questions about social affairs.

In his opening chapter, "Epistemological Paradigm Shifts: A Game Of Chess", Notturno (1985) demarcated the conceptual essentials of the old and new paradigms by "a quest for objective and absolute certainty" being replaced by acceptance of fallibility. While objectivity and certainty may be aimed for, they are no longer considered to be criteria of knowledge (p3). With human investigations into natural phenomena, "whatever objective knowledge is obtained is thought to be both temporal and uncertain, by its very nature evolutionary and subject to revision" (p4). Such a view fits comfortably with a sense of the emergent and evolutionary nature of the research. Such a decline from absolutism to fallibility with a recognition of subjectivity is, however, problematic.

Lather (1986a, p66) relegated efforts to set "subjective, tacit knowledge" apart from the context of verification as "naive empiricism", and claimed that what she called the 'rampant subjectivity' inherent in the more phenomenologically based paradigms would prove "the nemesis of new paradigm research" (p68). Her concern is that research in a postpositivist context "mandates a self-corrective element to prevent phenomena from being forced into preconceived interpretive schemes" (p65). Thus:

... if we want illuminating and resonant theory grounded in trustworthy data, we must formulate self-corrective techniques that will check the credibility of our data and minimize the distorting effect of personal bias upon the logic of evidence (p65).
So empirical validation requires a critical stance regarding the inadequacies of pet theories and an openness to counter-interpretations, and empirical evidence is viewed as "a mediator for constant self- and theoretical interrogation" (p76). Hence Lather (1991, pp66-69) argued for a more systematic approach to triangulation and reflexivity. Positioning 'validity' "as a space of constructed visibility of the practices of methodology (Lather, 1993, p676), she gave strong emphasis (1991, p68) to 'face' validity and 'catalytic' validity and, with Cherryholmes, incorporated Cronbach and Meehl's (1955) concept of 'construct' validity:

Construct validation as critical discourse attempts to create conditions whereby biases and misperceptions of researchers and subjects-objects can be addressed and examined, if not overcome. (Cherryholmes, 1988, pp433-434)

There is a narrow line between giving credence to the researcher's subjectivity and minimising the distortion of possible bias, and Lather's approach is helpful in this regard. Where I differ from Lather is that, with her emphasis on 'self-corrective', she seems to see such approaches as precautionary tactics. I would rather see the qualities she wrote of as positive contributions to the research. Incorporating different methods and techniques, listening attentively and on a number of occasions to the many voices that have contributed to the research, searching for disconfirmation and counter-patterns as well as convergence ... these have intrinsic merit. They contribute to what Parlett (1977, p40) termed "recognizable reality ... a major means of validity testing in illuminative studies".

Hence I am concerned by the issue of validity of interpretation; "the interface between the findings of the study and the reality from which they were extracted" (Walker, 1980, p45). As the person who has undertaken the research and attempted to understand and

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* 'Face' validity is assessed by the evaluator studying the concept to be measured and determining, in his or her best judgement, whether the instrument arrives at the concept adequately (Bailey, 1987, p68). For Lather (1986a, p67) 'face validity' goes beyond simply the evaluator's judgement to incorporate the recycling of the analysis back through at least a subsample of respondents.

** As far as the unorthodox and far less well known notion of 'catalytic' validity is concerned, Lather (1986a p67 and 1986b, p272) described it as representing "the degree to which the research process reorients, focuses, and energizes participants toward knowing reality in order to transform it". Hence it recognises the reality-altering impact of the research process. In recent writing (1993), Lather has engaged with what she terms 'transgressive validity': see, especially, pp685-686.

*** 'Construct' validity requires not only a concept with at least two measures but also other concepts and their measures that can be related to the concept in question through propositions (Bailey, 1987, pp67-70). For Lather (1986a, p67), 'construct validity' must be dealt with in ways that recognize its roots in theory construction, with a "systematized reflexivity" mandatory.
interpret, the extent to which I understand myself, my own values and assumptions, is basic. Ricoeur (1971, pxv) wrote of his opposition to any philosophy based on "the transparency of the ego to itself". While appreciating his viewpoint, I do not think this research has ultimately become an exercise in self-discovery. I believe that a developing self-awareness has been a necessary consequence of the study and this has paralleled the developing awareness of the perceptions of the participants in the research and the technologies being considered.

When something is known, there is no such thing as a 'detached', 'neutral' or 'objective' place to stand; we speak from a 'prejudiced' (in the sense of pre-judgement), 'interested' and 'evaluative' posture (Bowles, 1984, p187). The anthropologist, Margaret Mead (1975, p144) appreciated that "to clear one's mind of pre-suppositions is a very hard thing to do and, without years of practice, all but impossible when one is working in one's own culture or in another that is very close to it". I could not have taught for nearly twenty years without gaining some understanding of what teaching and learning entails. To strip this away, and come to the research clear from my pre-judgments, would have been impossible and would have impoverished the study.

It is important, however, that such values do not remain covert or are imposed arbitrarily. The critical issue, then, is not to disclaim 'subjective bias', which is probably inevitable, but to own it, identify it - be aware of it and of its constraints and limitations. Our own viewpoints are seductive - we judge favourably what represents our own sense of what is right. I have striven to keep this in mind consistently through this research. To provide an instance. I believe that one indicator of a successful tutorial is consistent spoken interaction, yet I have spoken with lecturers and students who have judged a session as highly satisfactory when that same experience was lecture-dominated with minimal direct student spoken input. Recognising that I held this 'bias', led me to interrogate it; to seek perceptions of others and to explore the bases for contentment with such an approach to teaching and learning.

Moving from a recognition to an appreciation of "the subjective prejudice and tacit knowledge of the researcher" is as significant as it is problematic. Not only does it assist in recognising complexity, rather than resorting to reductionism, but it facilitates growth. If each time we observe we have to start again at the frontiers, we have nothing to set that particular experience alongside. It must inevitably be condemned to isolation, to remain as a fragment and any pattern, congruence or an appreciation of disconfirmation is inevitably denied. As von Humbolt averred (1821: 1973, p15):
All understanding presupposes in the person who understands, as a condition of its possibility, an analogue of that which will actually be understood later: an original, antecedent congruity between subject and object.

THE ACKNOWLEDGEMENT THAT THE DIRECTION OF THE RESEARCH IS PROPELLED BY A DYNAMIC INTERACTION BETWEEN THE RESEARCHER AND THE RESEARCH SETTING

If, as in this instance, the research is rooted in a direct exploration of teachers' and students' experiences of learning, to explain the behaviour from the outside as a detached, objective observer seems far less satisfactory than to seek an empathetic understanding of what is involved. Without empathy it is most unlikely that responses from participants in the research will be as complete, or that those responses will be as fully appreciated and understood. Kahn and Cannell (1983, p112) wrote:

... we are convinced that the necessary basis for effective communication from the respondent lies, not in the respondent’s perception that the interviewer is a person like himself [sic], but rather in the respondent’s realization that the interviewer is an empathic individual, a person who can understand him [sic].

As Evans and Nation (1989, p37) appreciated, "humans in communication are engaged actively in the making and exchange of meanings, [dialogue] is not merely about the transmission of messages". The conversation not only elicits information - attitudes, values, feelings, perceptions, descriptions, as well as more factual data - but the exchange of views can "produce a level of intelligence higher than either participant could produce alone" (Metzler, 1977, p10); unanticipated ideas can be generated for each partner in the dialogue (Killenberg and Anderson, 1976, p17). Such an approach can be instrumental as it is in the researcher's interest to employ reciprocity as "an excellent data gathering technique" (Everhart, 1977, p10). I have found in multiple interviews with students and academics, and with their journals submitted later, that, as a bond is established, there is less of a tendency to edit what is said or written and more likelihood of franker, fuller responses that go beyond the basic to explore issues in depth. There are, however, ethical considerations:

For persons, as autonomous beings, have a moral right to participate in decisions that claim to generate knowledge about them. Such a right ... protects them from ... being managed and manipulated". (Heron, 1981, pp34-35)

Some theorists (represented here by Wilson, 1977), uncomfortable with 'feared subjectivity', advise researchers (p199) to learn "to systematically empathise with the participants". Thus he found important differences between the subjectivity of the
participants and that of the researcher who "is careful never to abandon himself [sic]" to such perspectives. My own approach is somewhat different. Learning to empathise contains imposition; 'systematically' empathising - but within set boundaries - strikes me as cold and potentially manipulative. It is as though the researcher puts on a garb of empathy to gain the confidence and involvement of the 'subject' and withdraws when this is considered appropriate. Such alienation of the subject from the process of the study under the traditional research model

... defines the interaction of researched and researcher in a rather formal act of role-playing. This formal interaction severely constrains not only what the researcher can see but what can be effected. (Goodson and Walker, 1988, p112)

Similarly, Oakley (1981, p58) contended that the "mystification of the researcher" and interpretation of the researched as "objective instruments of data production" should be replaced by the recognition that "personal involvement is more than dangerous bias - it is the condition under which people come to know each other and to admit others into their lives".

'Dynamic interaction' and 'personal involvement' can entail intervention. A clear illustration of where Wilson would very probably have withdrawn from involvement and I took a different stance concerned an interview with a first year Bachelor of Nursing student. My agenda was to discuss her attitude towards teletutorials prior to her first experience but on my first contact with her she hastened to tell me that I was "wasting my time" as she intended dropping the unit. I asked her why she had made that decision. If it had been for personal reasons I would have terminated the conversation without quibble, but, since she indicated that her problems were with the course material and I believed these would be quite readily resolved, I attempted to reassure her and persuaded her to participate in the teletutorial. Unquestionably, my comments influenced what she anticipated the teletutorial would be but, equally unquestionably, my intervention led to her staying with the course. I do not believe that this student became a 'polluted' respondent; rather, the demonstration that I cared about her and her studies contributed to a very fruitful series of interviews. More generally, as my professional duties have involved working with academic staff to develop their teleconferencing, much of the data I have amassed comes from discussion with tutors*.

* Throughout this dissertation the word 'tutor' has been used as a generic term for any academic staff member involved in audioteleconferencing irrespective of title: eg lecturer, professor. This is deemed to be consistent with the use of 'teletutorial' and because specifying a title that indicates status would not contribute meaningfully to the study as there has been no attempt to link teletutor effectiveness and designated position. Moreover, titles change. One of the 'tutors' in the case studies was a 'lecturer' at that time and is now a
The very act of talking with them about teaching this way has entailed some intervention in their teaching and this is most apparent on occasions where I have suggested strategies to enhance their teletutoring. Moreover, as Kemmis (1980, p109) pointed out, case study is inherently interventive, with interviewing, recording, observation and so on rarely passive.

While, in this instance, practical considerations have driven the decision to become involved in this way, philosophically I see this as desirable. The aim is not only to understand but to facilitate change for what is perceived as better. As Nisbet (1980, p6) claimed, bringing research and innovation together in 'interventionist-type studies' gives 'action research' where research is a guide to action and the results of the action are a guide to research. Such intervention relates to 'catalytic' validity, discussed above.

The argument for catalytic validity lies not only within recognition of the reality-altering impact of the research process, but also in the desire to consciously channel this impact so that respondents gain self-understanding and, ultimately, self-determination through research participation. (Lather, 1991, p68)

As with the earlier comments about bias, I believe the critical thing is to be aware that such intervention has occurred and then one must be prepared to scrutinise the implications. Dynamic interaction between the researcher and the researched is integrally linked for writers such as Lather (1986b, 1989 and 1991) to concerns with research being 'empowering' and 'emancipatory'. To Mishler (1986, p119), who believes that research should be guided by the aim of empowering respondents, "to be empowered is not only to speak in one's own voice and to tell one own's story, but to apply the understanding arrived at to action in accord with one's own interests". He wrote (p135):

The central question is whether and how different research practices and forms of interviewing may function to hinder or to facilitate respondents' efforts to construct meaning from their experience, develop a fuller and more adequate understanding of their own interests, and act more effectively to achieve their purposes. The proposed transformations in research practice are intended to empower respondents by facilitating their efforts to learn and act.

While this study is not part of research that is set in explicitly socio-political or feminist contexts, in a limited sense it is premised on the need to empower those respondents who are part of the research.

'professor'. It is very unlikely that her approach to teletutoring will have changed in the three year period to the extent that her professional status has.
Initially, in the methods used to collect data, the respondents were respected as individuals but there was no intention that a substantive dialogue would develop. Although some students and academics were interviewed before the first set of questionnaires was designed and administered, these interviews were brief, were not pursued, and there was no sense of reciprocity or expectation that the students and staff would possibly comment on, and even gain from, the use to which their contribution had been put, as we had gained from their assistance to the project. In the later stages of the research, there was a greater commitment to collaboration and interaction. This came essentially through approaches to interviewing, but with a subset of students and academics whose contribution to the research is substantive the dialogue has continued and their involvement in the use made of their contribution will, it is hoped, have gone beyond checking accuracy and authenticity, to enrich their own approaches to learning and teaching. This is in many ways unsatisfactory as so many respondents have remained completers of questionnaires with little known beyond their response to a number of set questions. For many, hanging up the telephone after an interview terminated their relationship with the research. It would be encouraging to think that some of the issues raised were influential on their own thinking about learning and teaching, but this is simply not known. If the research had been more securely grounded in an empowering, emancipatory model from the outset it would be, but it cannot be denied that there would have been a cost: practical constraints would have made it impossible to enter a meaningful dialogue with the several hundred participants whose contribution represents the groundswell of this study. Thus the contribution on that level would have been lost.

Further, as noted by Howe (1992, p248) the interpretivist facilitation in educational research can lead theorists to "give to the insider's perspective" to the extent that it supersedes the perspectives of the researcher:

This places the researcher in the position of being a mere data gather[er] who then operates as little more than a functionary, withholding, or revising in the light of the insiders' perspectives, perspectives on the situation that might disagree with those of the insiders (p249).

Howe urges the adoption of a 'critical education research model' that allows perceptions to be challenged "rather than merely facilitating mutual understanding of the rules of the game" (p249). While perceptions were occasionally challenged as part of the dialogue of the interviews, where interpretation of the discourse of the teletutorials has differed there has been no attempt to pursue this with the participants. Because, as discussed above, the researcher has access to multiple and controlled hearings (see Chapter 2:
section 4) this experience is of a different nature as far as the ability to undertake close analysis is concerned. Hence commonality of interpretation has not been sought and there are significant occasions (see Chapter 7) where the interpretation of the researcher is not congruent with that of those researched.

AN ILLUSTRATION OF THE CONCEPT THAT THE PART IS ALWAYS UNDERSTOOD IN RELATION TO THE WHOLE

Although seen as a hallmark of any qualitative research (Edson, 1988, p46) and not confined to hermeneutics, appreciation of the significance of context is an integral tenet of this paradigm. To consider this in relationship with text:

... it makes no sense to speak about the meaning of a text apart from our reading of it. No reading, however, is context-free, and it is precisely this phenomenological fact that there is always a context that serves to anchor the text in our actual living and to allow it to have a decidable meaning. (Madison, 1988, p114, italics in original)

and with interviewing:

... the interview is not to be regarded as an isolated event, but rather as one of the steps in a sequence. The interview takes place in a context or matrix of such steps, and it can be understood and successfully practiced only if the interviewer is aware of this context. (Kahn and Cannell, 1983, p104)

One criticism of positivist ideology is that it diminishes the significance of the existential condition in which problems arise with its propensity to fragment and isolate inquiries (Giarelli and Chambliss, 1988, p34). In contrast, qualitative inquiry is neither context-free nor context-independent. Rather, it is context-specific, positing that ideas, people and events cannot be understood if isolated from their contexts (Edson, 1988, p46).

So, ideally, any experience is studied holistically with attention given to all features of the experience: "experience is studied as a whole, not in isolation from the past or the present" (Edson, 1988, p46). While this comment suggests a chronologically aware frame of reference, with a study premised on human nature and experience the term 'context' becomes far more problematic. Kirsh (1983, p11) reminded us:

Man [sic] is the most complex system we know. His biological constitution is more complicated than any other known organism, his cognitive capacities exceed anything we have yet encountered or created, and his social interactions are so complicated that no theory has been suggested that might even begin to qualify as a general theory of human social behavior.
People are synergistic beings, coexisting with the universe and involved in complex relationships. The need for awareness of individual diversity and contextual variation is assumed, but how comprehensively will this be considered? One of the most ambitious titles in the field of distance education that I have encountered is Morgan et al's (1982) *Understanding the Distance Learner as a Whole Person*. This paper, presented to an international conference in 1982, indicates that, while the concern is there, 'whole' has been interpreted in a very limited sense - a pale shadow of Villarruel's (1992) listing of racial, ethnic, gender, physical, national, and cultural criteria.

I commend the philosophical stance behind intentions such as Morgan et al's, but contend that it is an impossible task. Similarly, I query that it is possible to give attention to ALL features of experience; the totality of any experience is beyond us. While recognising that the more one appreciates the context the more one understands the focus, in reality an atomistic view has prevailed. This does not mean that the context has been ignored; rather, that boundaries have been set for pragmatic reasons and the implications of this for the study have been recognised as problematic and limiting. Boundaries cannot be drawn and enforced without privileging beliefs and interests of one individual or group at the expense of others (Cherryholmes, 1988, p449).

As far as context is concerned, a critical factor is awareness: of the need to explore a chosen issue or issues from a multi-dimensional approach; of the need to be sensitive to the other elements that begin to be perceived as understanding and sharing of ideas develops; of the need to seek a network that collaboratively and synthetically merges different fields of scholastic endeavour. Such awareness makes it possible to come closer to appreciating where the focus of the study sits. Qualitative research helps to expand frames of reference and fosters an appreciation for complexity (Edson, 1988, p45); it moves us closer to totality, but I do not assume that this study is - or could be - exhaustive.

There is a tension here. If the aim is to portray as comprehensively, as substantively as possible, to appreciate all nuances, yet, there is a compulsion to take the data beyond description, to generate concepts - even theory - there is competition. One approach seeks to mirror; the other seeks to explain, to account.

To opt for the portrait or the mirror reflection is to want to capture the intimate flavour, the feeling of uniqueness, complexity and idiosyncrasy, a portion of life in its most 'real' form. To lean towards interpretation arises through wanting, at some level, to generalise or to seek patterns of invariance, to condense, to abstract, or to capture the essence of what is being studied. It is necessarily more selective. (Hamilton et al, 1977, pp235-236)
The approach I have taken leans towards the latter.

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To pursue a hermeneutic intent is, then, "to make life difficult, not impossible - to face up to the difference and difficulty which enter into what we think and do and hope for, not to grind them to a halt" (Caputo, 1987, p7). To illustrate this, I have attempted to focus on differences in learning experiences that are face-to-face and those by correspondence and by telephone. Rather than adopting the jargon that "the technology should be transparent", in this instance I have attempted to determine what it means for people to be unaware of the technologies (the telephone) they use in their teaching and learning for "no matter how relatively transparent they [actual technologies] become, they remain far from perfect transparency" (Ihde, 1982, p59). Making the familiar strange does make life difficult, but it can lead to awareness. Further, in this instance, the "phenomenology of media ... directs itself to uncovering what might be called invariant or essential features of such situations and in the process begins to unravel somewhat broader implications for the overall human impact of technology" (Ihde, 1982, p55).

SECTION 4: THE IMPORTANCE OF SPOKEN LANGUAGE

INTRODUCTION

Talking - by both students and academics and, to a lesser extent, the talking of the researcher - is fundamental not only to the issue of this study but also to its methodologies. To study 'talk' is to study language. The teletutorial is a form of discourse, as is the interview. Linguists, anthropologists, sociologists, psychologists and, more recently, educators interpret valid study in this area from differing perspectives at variance both individually and within disciplines. However, as Gumperz recognised (1982, p9), although sociolinguistics is commonly regarded as a new field of inquiry that investigates the language usage of particular human groups and relies on data sources and analytical paradigms quite distinct from those employed by linguists, there are common intellectual roots. Recently there has been concern to bridge the discipline boundaries. For instance, Grimshaw (1989, pxxv), a sociologist concerned with discourse, sought to demonstrate with his interdisciplinary study that the data, methods and theories of those in different but relevant disciplines cannot be ignored.
Candlin (1985, pvi) offered a useful distinction between “two distinguishable but related discourse worlds”: a portrayal of the structure of suprasentential text or social transaction by imposing some framework on the data, explicitly or implicitly and a characterization of how, in the context of negotiation, participants go about an interactive process of interpreting meaning. Thus the former approach is concerned with sequential relationships and emphasises organisation and mapping, the latter with interpretation, emphasising social relationships and interaction (ppviii-ix). Unlike Brown and Yule’s (1983, px) negative characterisation of hermeneutics as a “dangerous extreme of advocating the individual (or idiosyncratic) approach to the interpretation of each discourse fragment”, Candlin was not troubled by the association of the second approach to discourse analysis with a hermeneutic view (pviii). Thompson, (1984, p139) went further, pointing to “the centrality and unsurpassability of the hermeneutical process” in the analysis of discourse.

While the approach to discourse analysis taken here follows the second approach because of the hermeneutic philosophy that underpins this study, there is a recognition (as Candlin fully appreciated: pix) that each world implies the other and cannot be easily abstracted from it. Thus an integrated view seems inescapable. This, however, does not preclude emphasising interaction, relationships and interpretation.

THE ISSUE OF CONTEXT

Such an approach necessitates awareness of both the literal and linguistic context in which the spoken utterance is embedded. Thompson (1984, p7) claimed that few attempts have been made to examine just what is involved in regarding language as a social phenomenon, enmeshed in relationships, situations and processes. Language and social action are themselves produced in a cultural milieu and concern to understand further the reflexive relationship between language and the social world led Fisher and Todd (1983, p4) to write:

The complementarity of language and social action on the one hand and social structure and behavior on the other draws attention away from utterances exchanged in a vacuum to the context in which they occur, and back again to language.

Moffett (1965: 1981, p141) pointed to some of the significant contextual variables of spoken discourse when he wrote:

The fact that my account is an unrehearsed, face-to-face vocalization, uttered to this person for this reason at this time and place and in these circumstances determines to an enormous degree not only the overall way in which I abstract
certain features of the ongoing panorama of the ... scene but also much of the way I choose words, construct sentences, and organize parts.

Contextual description is now recognised as a requirement for the analysis of discourse (Brown and Yule, 1983, p27). Stubbs (1988, p66) provided a useful summation of the main arguments:

... a failure to study context reifies the object of study, by neglecting the interpretative procedures by which situated meanings are constructed, and by failing to treat as problematic the ways in which social order is successfully accomplished by members. ... Context-free studies of language are reductionist: they reduce praxis to process; they reduce the study of meaningful behaviour to the study of ideal-typical structures, taking for granted how such structures are interpreted and used in context; and they refuse to study the essential meaningfulness of human behaviour, and how people make sense of social interaction.

Paying close attention to context brings with it a number of methodological considerations.

Conventionally, the context that provides the frame for the discourse is interpreted as the situation:

We do not experience language in isolation - if we did we would not recognise it as language - but always in relation to a scenario, some background of persons and actions and events from which the things which are said derive their meaning. This is referred to as the 'situation', so language is said to function in 'contexts of situation' and any account of language which fails to build in the situation as an essential ingredient is likely to be artificial and unrewarding. (Halliday, 1978, pp28-29)

Young (1992, p22) claimed that "teachers frequently have a context-free understanding of learning, or, at least, an impoverished notion of context", ignoring such factors as "the dynamic character of context and its personal and actively-constructed character" as well as the context that is brought to the experience and that created by the co-presence of other learners. Referring to classroom research, Furlong and Edwards (1988, p57) warned that, where the context is familiar, there is a temptation to let "common-sense notions of what the situation is like" do much of the explanatory work. Although the teletutorial has a less familiar setting, the extent to which attitudes, by both students and tutors, anticipated that the normalising influence of the traditional classroom would be pervasive was of interest. It was conjectured that a number of expectations would be generated in this way before the event itself and understanding of these frames of reference would be necessary for "a setting supplies its participants with an interpretive basis as they routinely interact, a frame of understandings shared and enforced by them"
(Speier, 1973, p34). For this reason it was considered important to interview participants before they had experienced any teletutorials to determine what their preconceptions were and to set these alongside what they said of their experiences. Kendon (1990, p239) claimed that "interaction simply cannot proceed except insofar as participants are able to share at least some assumptions about the situation and each other's intentions in it". Cherry (1957: 1978, p279) considered the more prior relevant experience, the sharper the 'set' and the more ready the response. More recently Tracy and Baratz (1993, p313) wrote "the more history people have with each other, the less important is any single exchange". It can be theorised, then, that the more bounded the speech event is, the more it is shared and has been shared by an homogeneous group for a known purpose, the more likely it is that the interaction will be coherent.

One way in which the context is not 'familiar' but warrants particular investigation is that the setting in which the telephone calls are taken is external to the university. A significant problem here is that this context is virtually limitless as it potentially includes the environment of each participant. Thus, while the environment in which calls are taken has been addressed in both questionnaires and interviews, the researcher has no direct knowledge to shape her perceptions in this area. Walker (1993, p23) has challenged the common view of home study ("synonymous with isolation, quiet and their transient space at the end of the kitchen table") and the knowledge these research instruments revealed has contributed to a fuller understanding of what the domestic environment entails and its implications for learning by telephone tutorials. The communications consultants, McFarlane and Nissen (1982), contended that the room is given the least attention, yet it is the critical component for successful audioteleconferencing. Rothe (1985, p202) is one of the few writers to make special reference to the "learners' home environments", considering this factor tends to contribute to problems with audioteleconferencing.

A further contextual matter of concern to Furlong and Edwards (1988, p57) is that classroom research has frequently assumed that pedagogy varies little from teacher to teacher. To this I would add (as Young's research suggests: see, especially, Young, 1992, pp18-20) discipline to discipline as well as level to level. In this study, the selection of case studies was influenced by an appreciation that these are significant areas to explore. The minor case studies draw on two different discipline areas: Management (Commerce) at postgraduate level and Social Sciences at both undergraduate and postgraduate levels. The two major case studies are deliberately taken from the same third discipline - Health Sciences - with one concerned with first-year students; the other with graduate diploma students.
On the basis that an interactional event is any boundable instance of behavioural interdependence (Kendon, 1990, p11), the boundaries need to be determined. As distinct from face-to-face classes where the interaction can begin and continue for all participants and even within several sub-groups well beyond the formal contact time, in this instance the bounded speech event of the teletutorial was not problematic to determine. It was clearly the time of the telephone connection, starting with the first connection and ending with the last connection severed. Moreover, analysis of face-to-face classroom discussion is made far more difficult because of the number of simultaneous conversations that may well occur. In an audioteleconference, the technology limits the experience to one conversation. Similarly, the start and termination of the telephone call marked the boundaries of those interviews whereas, in face-to-face interviews, relevant comments were often made after the interview had formally ended.

To study context necessitates, however, going further than paying attention to discrete background factors. Edwards and Westgate (1987, p178) wrote that "severe problems [occur] once it is accepted that contexts are not fixed frames of reference within which talk takes place and has its meaning, but are themselves talked into being, renewed or challenged". The collection of papers Tannen (1982) edited demonstrates that complexities found in discourse in context reflect not only its spoken or written mode but its interactive goals and structures with genre, register and speech event all playing significant roles. Thus distinctions are "foggier". The situation is made more complex when it is appreciated that "individuals and societies (are) caught in changing traditions of orality and literacy intertwined with each other and with chirography, print and technology" (pxii). This research, therefore, sought to deepen understanding of the complexity of the context in which the discourse is set as one means of more fully understanding the meaning of the interviews and the spoken interaction of the teletutorial. Here the mediation of the technology of the telephone (see Chapter 2; section 4) needed particular attention.

I am indebted to Ihde (1979, 1982, 1990) for strengthening my resolve to make the 'transparency' of the medium of the telephone problematic. His explicit connection of the medium to a hermeneutic role "by being situated between the direct expressive activity and recipient"; by being "mediated" (1982, p62), as well as his writing on hermeneutic technics (1990, pp80-97) seemed particularly apposite. Thus this study aimed to discern the transformations the technology implies and reflect on the ways these influence the communication and the teaching and learning.
THE ISSUE OF ANALYSIS

The early articles that treat discourse analysis (see, for example, Harris, 1952) concentrated attention solely on isolated individual words and speech acts and have little relevance to the approach taken in this study for, as Fisher and Todd (1983, p12) recognised, "concentration on single utterances or units of action does not allow for the analysis of the social production of communication across the flow of the interactional event" (italics in original). Categories for the coding of talk, such as those developed by Bales (1950); Flanders (1970); Morley and Stephenson (1977), offer discrete categories to quantify speech. Flanders' Interaction Analysis Categories (FIAC), for instance, are set in the contexts of initiation and response and offer ten categories: seven for the teacher, two for the pupils and one residual. The talk is coded at three second intervals, recorded sequentially and then computed. Hence much of the attention with classroom speech has been to display pedagogical moves. As forerunners to later work, Bellack et al (1966) considered the teacher typically structured the discussion or solicited a student's response, the student responded and the teacher then reacted to that response. Sinclair and Coulthard (1975) proposed five ranks to handle the structure of classroom interaction: lesson, transaction, exchange, move and act. Coulthard (1977: 1985) then developed an IRF model (Initiation, Response and Follow-Up/Feedback). Although it has undergone some refinement since first published, 'IRF' has been seen by many as a useful classificatory tool: see, for instance, Sinclair and Brazil (1982). Mehan (1979) developed a similar model, 'IRE': Initiation, Response and Evaluation. Barnes and Todd (1977) analyzed utterances into 'interaction' and 'content' frames on the premise that "the meaning of an utterance lies not in the utterance itself but in the implicit hypotheses about it which shape the future history of the conversation" (p108). In contrast to these somewhat simple models, the categories noted by Lemke are fine-grained and often complex (see, for example, Lemke, 1990, pp215-227) and they support a detailed and informed discussion of what is happening in the particular episodes he selects. Some recent analysts, such as Young (1992), have incorporated acronyms to suggest refinement of categories: for instance, in the case of questioning genres, 'WDPK' (What Do Pupils Know) and 'GWTT' (Guess What Teacher Thinks). Moving beyond coding and categorisation, Edwards and Westgate (1987) examined alternative ways of analyzing classroom communication which retained the sense of sequence which interpretation and belief in the significance of context require. They looked particularly (pp99-133) at turns, sequences and meanings.

A significant dimension of this study is its concern with the mediation of technologies (see Chapter 2: section 4). For this reason, research that incorporated the analysis of the
language of telephone conversation - particularly that of audioteleconferences for tertiary study - was of particular interest.

The first research in this area was of a purely technical nature, designed to test the ability of the medium to transmit sound patterns: see, for example, French et al (1930), who presented the first data concerning the vocabulary and relative frequency of occurrence of the speech sounds of telephone conversation, and Martin (1931) who studied repetitions in telephone conversations as an indicator of transmission characteristics and sound reproduction. One of the earliest experimental studies examining speech patterns in telephone conversations used speech analysis computer programs for automatic data collection (see Champness, 1971). Williams (1972) coded and quantified the physical attributes of transcripts (such as amount and length of speech), but found these less helpful measures than those which used the semantic or syntactic content. Flinck (1978) undertook a content analysis of tutor-initiated telephone calls to individual students and, as did Brookbank (1984), applied Flanders' Interaction Analysis Categories, while Chang-Yit (1979) applied Bales' Interaction Process Analysis categories to teleconferences using the North Dakota educational telephone network. Rutter and Robinson (1979), drew on the Open University experience of telephone tutoring and analysed both face-to-face and telephone tutorials. They coded each 'act' as Mode, (whether the participants was offering, rejecting or seeking), Resource (whether procedural, evaluative, informational, or acknowledgment) and Referent (the tutor or the student).

In the previous decade four studies have been reported that are of particular relevance to this study. Carey (1981) analysed a series of thirty taped teleconferences (coding twenty of these) to answer what he conceded (p304) was a "seemingly naive" question: "what is happening in audio teleconferencing"? He focused on the elements of different types of audioteleconference (especially large and small groups) and how they affected the amount and style of interaction. His analysis revealed distinct patterns at the beginning, middle and end of sessions. He coded gross speaking turns as "a rough measure of the volume of interaction", participant comment or question, moderator comment or question and organisation information. Information flow was plotted and visually represented as five models. As Carey appreciated (p308) these data do not provide information about such matters as the quality of the information exchanged, the learning processes or attitudes of the participants. A doctoral dissertation by Edison-Swift (1983), titled A Study in Interaction Analysis, built on Carey's work. The study addressed "the question of how to adequately describe what goes on during a teleconference session" (p29). It examined two large group audioteleconferences with
281 sites and over 600 participants with interaction data described in detail for five teleconferences (p81). While supporting Carey's findings regarding different interaction patterns for large and small groups (p118), this study offered a "significant contradiction" in that size did not appear to influence the gross amount of interaction (p119). Its research base has particular relevance for this study, for each teleconference dealt in some way with continuing education for professionals in the health occupations (p63). The approach had significant differences, however, from this study in terms of the large size of the groups and, as with Carey, the examination was through coding of the amount of interaction and type. The analysis of the transcripts was by word and phrase counting with frequency counts of speech utterances reported by meeting segment, the role of the person speaking and the message content. The typescripts were analyzed for the occurrence of units of ritualised speech and filled pauses (p81) and the material once coded was computer handled. The third study by Boone (1984) sought to examine excellence by an analysis of facilitator behaviours in actual audioteleconferences. She selected two tapes for qualitative analysis, dividing the data into incidents and then classifying them by grouping them into eight skill clusters. Because of its brevity (five pages) the study is suggestive rather than precise. Kirby and Boak (1987) reported on the development of a system to analyze audioteleconference interactions (SATA) that took place in thirteen audioteleconference teaching sessions. Again coding was used to place the material into five discrete categories: Who (Initiator of utterance), To Whom (person(s) to whom the utterance is directed), What (type of utterance), Context (the situation in which the utterance takes place) and Status.

Such approaches to discourse analysis that rely on categorisation have contributed to my thinking in this area but none offered a model that would provide a satisfactory approach to these data. This is because they relied on an atomistic approach that coded and placed language in discrete categories for pre-determined reasons. There is a related danger that reliance upon counting requires that discrete instances are treated as the same, ignoring the particular ways in which they are different and the way in which specific talk is situationally adapted. Setting the study in an evolutionary and interpretative frame (see discussion above), required a holistic approach that placed the discourse sensitively within its context. Further, codification and quantification convey an impression of "stable patterns of interaction with a high degree of order and uniformity, and with clearly specified messages" (Todd, 1981, p223). Barnes and Todd (1981, p76) suggested that the opposite typifies academic discourse:

Conversation - even academic conversation - is characterised by ambiguity, misunderstanding, meanings that insensibly change, and by what we have called 'fuzziness', all of which arise from the nature of the conversation, the diversity
of participants' social experience and therefore the diversity of the frames available.

and this research (see Chapters 6 and 7) - in common with the findings of Grimshaw (1989) and Tracy with Baratz, Carjuzáa and Muller (1993) - supports their findings.

Although earlier approaches to analysis have been useful, and some of the relevant conclusions have been brought directly into this study (See Chapters 5, 6 and 7), it was considered necessary to develop a variant of discourse analysis that, while indebted to such earlier related work, took cognisance of structure and shape but also the content and meaning in seemingly different ways.

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Eisner's (1977, p97) use of the phrase 'thick description' recursed frequently in my mind as I developed a way of analysing the discourse of the tele-tutorials. Perhaps attributable to a background of studying and teaching English Literature, increasingly I found it productive to overlay a literary critique to the spoken text. As with literary criticism, kinesic elements (such as posture, gesture, expression) are not directly observable in the spoken discourse of the audiotelconference and other resources are utilised to inform the analysis. There is such an extensive range of possibilities - even when it is assumed that speakers share the same language and purpose - that it is inevitable that what is perceived as the most appropriate will be drawn upon. For instance, lexical, syntactical, morphological and phonological attributes contribute to an understanding of grammar in discourse; voice quality, timbre, dialect/accent, intonation, tempo, register, amplitude are some of the key prosodic elements. It is possible to overlay sequencing and turn-taking strategies and occurrences, management and corrective devices, formulaic and ritualistic utterances, as well as generic elements such as genre and style. Beyond this are abstract interactional features such as the individual skills and abilities of the interactants, their shared knowledge, the cultural-societal environment, the cognitive level, the subject content. Further, where longer pieces of discourse are being analysed, there is a recognition that there is a need for simultaneous processing of information at several levels of generality (Gumperz, 1982, p21). Hence, as well as paying attention to the moment there is brought to the interpretation the experience of the rest of the conversation. In this study the speech episodes form a

* "Thick description aims at describing the meaning or significance of behaviour as it occurs in a cultural network saturated with meaning" (Eisner, 1977, p97). Kemmis (1980, p127) engages with a similar concept when he writes of "rich description".
sequence. For this reason it was often necessary to draw on other episodes at different times. A further interpretive frame was the spoken and written comment from the interactants about the expectations they had of the teletutorial sessions and how they perceived what happened.

It cannot be assumed that interactants invariably speak what they believe they mean or say what they really believe. Nor can it be assumed that interactants necessarily listen attentively, grasp fully what is said, are sensitive to inference as well as statement, and so respond appropriately. As Gumperz (1982, p4) wrote: "There is a tendency to take for granted that conversational involvement exists, that interlocutors are cooperating, and that interpretive conventions are shared". Some of the complexity is suggested in the following statement by Grimshaw (1990, pp281-282):

It is now a commonplace of interactional analysis (and that of conversational discourse) that different behaviors may be directed to same ends, that similar behaviors may be directed to different ends, that multiple means can be employed to individual ends, and single behaviors to multiple ends, and that behaviors may have multiple consequences - intended, unwanted, incidental, and so on.

Finally, conversation exists both between individuals and within an individual. As well as internalised dialogue (thought), it is entirely possible to have imaginary conversations with others. While the words are not articulated, if these conversations form part of the process of real spoken interaction, this is a further dimension. However, recognition that it exists is unlikely to lead to understanding of how its existence is influential in the discourse.

While there was interest in the structures, forms and devices employed, there was greater interest in the participants' interactional agendas, their perceptions and the outcomes as perceived by both interactants and analyst. Essentially I was concerned with how the discourse developed and sought a reflexivity between text and context in the search to understand and appreciate what was occurring in these telephone mediated teaching and learning sessions. I pursued an approach that would not shatter the dialectic of the discourse but would be an interpretation of the texts that preserved the dynamic construction of the talk. However, while seeking to find a meaning in what was said - yet alone what was left unsaid - I concluded with Thompson (1984, p132) that this represented a "cryptic, complex notion" for

... the meaning of an expression is an essentially open, shifting, indeterminate phenomenon, often framed in rhetorical figures and always susceptible to change.
Hence any approach is a movement towards understanding; not an understanding, itself.

Classroom language has been shown to have highly structured turn-taking interactional patterns (see, for example, Bellack et al., 1966; Flanders 1970). It has been instructive to follow earlier approaches to analysis to reveal the shape and structure of the academic discourse within the communicative framework of the teletutorial. The substantive concern of most analysts in language for teaching and teacher-student dialogue, with language for learning and student-student dialogue essentially disregarded, is attributable not only to ideological stance and practical considerations but also to teacher dominance in classroom language and teacher centredness in language exchange. Here, following Mehan's (1979) tripartite structure (see above) an 'IRE' framework has been applied to assist in the determination of who initiates major conversational moves (T), who responds (R') and who evaluates (E'). This has been developed to incorporate both quantitative and qualitative data and special attention has been given to context to assist the interpretation. I agree with Christie (forthcoming) and Thompson (1984, p107) that simple identification of a pattern such as 'IRE' may identify a structure, but its value is reduced if there is no accompanying attempt to illuminate the nature of the meanings constructed at any given time.

Stimulating students to think and sustaining discussion are roles that largely belong to the teacher and in this regard the question and nonquestion* are frequently used. Yet in teacher-student talk two conventions of social discourse are frequently violated: the questioner (teacher) asks a question, the answer to which is known; the respondent (student) is often not expected to know the answer (Cazden, 1988, Dillon, 1978 and Wong, 1991). Further, when it is appreciated that classroom observation that pupils asks as few as ten questions each in a given year, while teachers may ask ten thousand (Young, 1992, p101), a study of questioning in this tertiary context should make some contribution as to whether a similar locus of authority is evidenced here. Although posing a problem by asking questions appears to be the most direct and efficient method of stimulating student response (Bellack et al., 1966), Dillon (1985) concluded that teacher questions are likely to foil classroom discussion, whereas the use of nonquestions is more likely to foster student talk. Wong (1991), however, challenged Dillon's findings, and pointed to a number of complexities beyond the syntactical form of teacher utterance (such as the type of question asked) that would influence student

*In this study a 'question' is interpreted as an interrogative sentence; an asking, an inquiry, while a 'nonquestion' is interpreted as a statement. Wong (1991) uses the words 'summaries' and 'statements' when referring to nonquestions. Often (as in Dillon's 1985 study) these are simple affirmative comments such as "Right" and "Okay".
response. Tracy and Baratz (1993) demonstrated that the style of questioning (which they categorised, for instance, as 'gentle, non-threatening' or 'tough') was a critical factor in the university colloquium. They wrote (p300):

Assessments of questions and responses influence the attributions made about participants but judgments about the question-response sequence are in turn influenced by prior participant identity information. In sum, we have a cycle that includes questions, responses, and participants, where each piece has implications for the others.

I appreciated Young's (1992, p92) point of the need to describe questions functionally and not just at a surface level. Although I had intended to balance the IRE analysis described above with a 'QAR' analysis (Question-Answer-Reaction) (see Young, 1992, p98), I decided that to embed concern with questions in the thematic discussion was a preferable approach as it would sustain the attention to context and be responsive to a perceived need to appreciate the cyclic nature of such exchanges where, as quoted above, "each piece has implications for the others".

A related aspect of functional analysis is attention to turn-taking. Hopper (1992, p100), who paid particular attention to turn-taking, claimed that telephone conversation displayed "the purest instances" of the exploitation of principles of turn-taking that minimise, yet do not entirely prevent, both gap and overlap. He claimed (p101) the rhythm of the encounter was established by turn beginnings and wrote, "The role of timing in turn beginnings can scarcely be over-emphasized". In the case of the teleconference, however, the technology itself (see Chapter 5) means that overlap can be denied for, where a 'bridge' mechanism is used, only one voice will be heard at a time. A significant variant is the presence of multiple voices. Hence, the extent to which the conventional pattern of the dyad - the adjacency pair of teacher/student; student/teacher and student/student - was reproduced in the multi-voiced teleconference, or gave way to more complex patterns, was of concern. There was interest to determine if the normative teacher dominance would be reflected with a preponderance of teacher/student exchanges (which almost inevitably situate the tutor at the locus of the discourse) and a paucity of student/student exchanges. There was interest, also, in the number of times and the sorts of occasions when the exchange was student/teacher. In a pedagogical context there is a further complexity. While a comment or question from a tutor may be explicitly directed to an individual, there is an implicit message to all students for, as Bloome and Theodorou (1988, p219) pointed out, even when an individual is nominated, teachers normally speak to the group. Further as Thompson (1984, p116) recognised, the turn-taking system does not take place in a vacuum. Similarly, I have attempted to contextualise the turn-taking, considering not only the interpretive
processes of the interactants as they make decisions regarding when and to whom they will direct their speech, but also attempting to interpret the significance of these exchanges.

Conversation is binary of speech and silence. Although ignored - perhaps forgotten - or given passing attention in much of the literature of discourse analysis, this approach to analysis treats lapses in conversation as a phenomenon justifying serious consideration. Rumelhart (1983, p381) interpreted silence as a defensive strategy, defining it as failure to take a designated turn. Recording her discomfiture with a respondent who did not reply to her direct questions, she wrote: "I let each silence continue for as long as I could tolerate" (p383). In the brief excerpt being discussed, those silences are recorded as being five and seven seconds respectively. McLaughlin and Cody (1982, p301) drew on the work of other researchers* to conclude:

Thus, it would appear that a conversational lapse of 3 seconds or more would be not only sufficiently long to have a significant effect on conversational structure and subsequent skill evaluations, but also would be too long to correspond to any individual speaker's normal pause duration.

As the dominant pattern of exchange in the academic discourse that is analysed is that between women, the findings of Jaffe and Feldstein (1970) are of particular interest. They studied pairs of females engaged in thirty minute conversations and found the mean duration of switching pauses was .664 seconds. While it is appreciated that the norms of what counts as appropriate speech behaviour vary culturally and contextually (Gumperz, 1982, p3), this study has followed McLaughlin and Cody's (1983, p301) definition of a lapse as "an extended silence (3 seconds or more) at a transition-relevant place, in a dyadic encounter the focus of which is conversation" to see if a definition developed within social conversations is applicable, in this instance, to academic discourse with multiple interactants.

Although, as stated above, quantification of the data has essentially been rejected, within a defined context the counting of lines of transcript has been used to demonstrate dominance and counting of pauses has contributed to an understanding of disruptions to the flow of the discourse. However, it should be stressed that the counting has been used as one platform to support the interpretation, rather than becoming the structure itself, as is the case of much analysis referred to in the literature that relies on counting and codifying.

Although the context for Lemke's work is, in substantive respects, different from my study as it is essentially limited to the face-to-face school Science classroom, Lemke's holistic approach to analysis is both apposite and satisfying. Lemke (as am I) is concerned with both the functional role of classroom dialogue and its thematic contribution - with what he has termed the "thematic patterns" of the subject (see, for instance, Lemke, 1989a, pp136-137). He has supported a comprehensive and detailed discourse analysis of selected transcribed episodes with fieldnotes from observation, as well as interviews with teachers and sometimes students. Similarly, and to a fuller extent than has Lemke (1990), I have integrated interviews as well as journal responses from students with the analysis of transcribed teletutorial episodes. I have drawn, also, on Lemke's structure that integrates line-numbered transcripts with the analysis/description/discussion of themes that have emerged from the data.

Thompson (1984, pp8-9) referred to two "most prominent" limitations of much conventional analysis: the emphasis on form and structure at the expense of content and the failure to provide a satisfactory account of the non-linguistic sphere and of the relations between linguistic and non-linguistic activity. In this study, while concerned with how the discourse has developed, I have focussed on the content: on what is said. Second, there has been particular concern with the reflexivity of text and context; the linguistic and the non-linguistic. The aim has been to develop a synergy of voices and approaches to assist with the interpretation of the discourse. As Thompson (1984, p133) wrote:

The analysis of discourse can never be merely an analysis: it must also be a synthetic construction, a creative projection, of a possible meaning.

Thompson (pp134-147), proposed what he termed the 'depth-interpretative procedure' which was divided into three principal phases, "thematicall y distinct dimensions of a complex interpretative process" (p134): the dimension of social analysis, the dimension of discursive analysis and the final phase of interpretation. Although I have not followed the precise analytical levels he articulated, I have followed an approach that seeks multiple dimensions of informing the interpretation, yet cognisant that interpretation is an integral element of each stage. Perhaps most importantly, Thompson links discourse analysis and hermeneutics. The thesis he wishes to maintain is "that the crucial criterion which operates in conjunction with the depth-hermeneutical procedure is provided by a principle of self-reflection "(p143, italics in original). While Thompson made specific reference to "subjects capable of reflection", and therefore associates reflection with the interactants, I would add a further referential dimension: the self-reflection of the researcher/analyst/listener and writer. On the basis that the reader also
engages with the spoken and written texts of this thesis, if there is a stimulus to reader
self-reflection, as well, the study will have achieved far more than was initially
envisaged.

Several decades ago it was postulated (Cherry, 1957: 1978, p323) that there are
differences in structure and pausing when the discourse is at a higher intellectual level
rather than just being casual conversation. As discussed above (see, especially, Chapter
2: section 3), there appears little reported research that assists us to understand the
distinctive nature of academic discourse. In the context of the mediation of the
telephone, this study offers an interpretation of the intellectual conversation of particular
episodes within the teletutorials that formed part of one course of tertiary study at first
year undergraduate level.
Chapter 4
METHODS

Because of ... concatenation, each element of what is being described
shines, as it were, with light reflected from all the others; it is
because they come to a common focus that together they throw light
on what is being explained. (Kaplan, 1964, p329)

The intention of this chapter is to provide a critical review of the relevant
methodological literature and to indicate and justify the proposed
methods. Essentially the research data produced formed a family of texts
that informed the study. The development of the research in following
the illuminative hermeneutic paradigm discussed above, was towards a
methodology that reflected on its own practice. As the substantive base
was a group of case studies, these have been discussed first (see Section 1)
and the remaining three sections consider aspects of the data.

INTRODUCTION

'Method', Shulman (1988, p3) claimed, is the attribute which distinguishes research
activity from mere observation and speculation. For me, it is the element that provided
contours for the work I have been engaged in. I have observed, I have speculated, but,
until a philosophical dimension existed, what research there was remained more on the
level of activity than that of intellect. The philosophical dimension has been outlined in
the previous chapter where the conceptual/theoretical base of the study was delineated.

Walker (1985, p45) wrote that the terms 'method', 'technique' and even 'methodology'
tended to be used interchangeably but found it useful to differentiate, restricting the use
of the term 'methodology' to denoting the logic of methods. Thus he advised that a
'methodology', while specifying methods, should do so "only in order to justify their
use for defined purposes in specified situations and circumstances". Similarly, Cohen
and Manion (1980, p26) averred that, if methods refer to the techniques and procedures
used in the process of data-gathering, then "the aim of methodology is to help us to
understand, in the broadest possible terms, not the products of scientific inquiry but the
process itself". With the amendment of the removal of the descriptor/limiter 'scientific',
I shall take this as the basis for this section: a concentration on process but it will incorporate also a discussion of the techniques and procedures.

In texts to guide researchers (see, for example, Cohen and Manion, 1980; Jaeger, 1988; Slavin, 1984; Travers, 1958: 1969) one of the most persistent themes is the choice of appropriate methods of data collection and analysis to suit the research question. Brenner et al (1985, p5) point to a general conclusion that the selection of the research instruments can be made from the researcher's convenience rather than "out of consideration for the informant or the quality of the information". While I would contend that it is natural to strive to find approaches that suit our own predilections and inclinations, and practical considerations such as cost can be significant constraints, in attempting to find appropriate methods I have been concerned fundamentally that the data generated should be a rich resource for the study; that from a variety of approaches - each complementing the other and building from the other in credence with the tenets of the illuminative paradigm outlined above - as full a picture as possible would emerge.

While I have been aware that each of the methods I have employed (see below) has both strengths and weaknesses, I believe that it is of considerable benefit to incorporate a variety of research instruments. I have found it unproductive to place quantitative and qualitative research in mutually exclusive and arbitrary categories and productive to bring together fact and feeling. I have followed theorists such as Giarelli (1988, pp18-19) who contend that, in a sense, all research is qualitative, and qualitative research is not in competition with quantitative research but draws on it and integrates it. Howe (1992, p237) wrote "it is now viewed as perfectly coherent to combine quantitative and qualitative 'techniques and procedures'" and suggested (p236) that educational researchers must learn to live with the certain tensions that result from embracing elements of each of these paradigms. However, for Howe, "positivism is untenable and interpretivism is incomplete" (p243) and he dismisses both in favour of a 'critical education research model'. His 'compatibilist' view captures both the active and passive ingredients of human behaviour (p245) and instructively poses a model of coherence that gives a critical edge to interpretivism. This critical education research model sanctions a variety of methodological approaches to educational research because education is a 'field of study' that freely borrows research methods and theory from a variety of disciplines (p251).

As Edson (1988, p44) wrote, if the purpose of qualitative inquiry is viewed as a quest to gain understanding, "there is no qualitative method per se, only methods to gather information with which we construct our qualitative understanding". One method, of
itself, is not privileged as far as the entire study is concerned. Rather, each has been of value in terms of the type of information it has yielded as well as the information itself. A further reason for undertaking a multi-method approach has been that the various methods can supplement one other. The most critical motivation is, however, that, where the research base is demonstrably and desirably subjective, where the essence of the study is interpretive, generating data in different ways acts as a validation procedure while accommodating a desire to recognise where perceptions vary.

To assist in tracking the analysis, a summary of the various research instruments that have constituted each of the case studies has been provided as Appendix 1a.

SECTION 1: THE CASE STUDIES

INTRODUCTION

This study rests on four case studies: two minor and two major. The two minor studies were undertaken as a prelude to the substantive research and were of two faculties (Social Sciences and Commerce) at the same Australian university. In both instances the faculties had an established teletutorial program for off-campus students and they were thought to demonstrate different, but relatively conventional, approaches to the uses of teletutorials. Their contribution to the study was to furnish information regarding a range of tutors and students at different levels and with different contexts and experiences. These data are reported in Chapter 6 and they contribute also to Chapter 5.

The major case studies are of two units of study in the Health Sciences. They are at two different universities (one in Australia, the other New Zealand) with one cohort of students in their first year of undergraduate study, the other part of the way through a postgraduate diploma.

Because part of the work of the first major case study has been reported in public forums with the university, faculty, course and tutor named and because it is the wish of the tutor concerned for this to occur here, customary ethical conventions, that provide anonymity to the greatest extent possible, have not been followed. In a telephone conversation (24.6.93) when this matter was discussed the tutor concerned said, "I'm a reflective practitioner and expect pluses and minuses. I'm prepared to own them".
Hence, after considerable reflection and consultation, and especially as the participants are heard in their own voices (see Chapter 7), with their knowledge and permission - it is, indeed, their wish - details that may lead to identification are given. In the case of the students, however, first names only are given and, where privileged information (such as results) is provided, a pseudonym has been used.

In the second major case study, because the participants were uncertain about being identified and because I had established a close bond with several key people during the course of the research, I was concerned that, from friendship, collegiality and a desire to support this study, there would be agreement to something about which there was very justifiable reservation. For this reason I decided not to pursue the second case study as had originally been intended: that is, as a parallel discourse analysis with speaker voice retained. Further, the details of written material and the unit of study - details that could lead to ready identification - have been omitted. There was a unanimous agreement that the country should be mentioned as it was considered that this was an important contextual element.

On the basis that "the more information we provided about what an individual said, the more likely his or her identity would be recoverable", Tracy and Baratz (1993, Note 5, pp317-318) decided to use more names than there were participants. While I applaud the motive, I am concerned that the consequence may be a conclusion that the same/similar view is widely held, when it may be that of the one person. Further, where I have drawn on individuals extensively I believe that it is important to reveal the frequency of the exchanges and the development of the ideas. For such reasons in three of the case studies I have used pseudonyms for both students and tutors, but these names accurately reflect the comments of that one person as well as gender and status.

Hence, with the exception of the first major case study, the following information has been provided: first name (pseudonym), status (ie undergraduate/postgraduate student, tutor*), faculty, source of information (eg interview, journal, questionnaire) and date. As all the material for Chapter 7 is drawn from the first major case study, it is considered cumbersome in this instance to provide such full details on each occasion. Here the first name, source of information and date have been included.

* As discussed earlier (see footnote, pp84-85) 'tutor' has been used as a generic term for all academic staff and any connection between teacher effectiveness and academic status has not been pursued.
THE FIRST MAJOR CASE STUDY

Rationale for selection

As I am enrolled as a postgraduate student at Deakin University and am also an academic staff member at this institution, with specific responsibility for research and evaluation of this university's teleconferencing initiatives, it was logical that the substantive base for this study would be drawn from Deakin University. The selection of the Faculty of Nursing was made because, at that stage, I was the designated distance education consultant to that faculty. This meant that I was involved in curriculum planning and was a participant in decision-making processes. The Bachelor of Nursing was chosen as the course as it was the core program of a relatively new faculty, with the specific unit being selected because it was being offered for the first time off-campus and the chair of the unit team was willing to engage in the research as a 'reflective practitioner'. An experienced nurse educator with a higher degree in education from Deakin University, at the time of this research she, herself, was involved in doctoral studies and was sympathetic to supporting this doctoral research. A further reason for selecting this tutor was that she was a novice at audioteleconferencing.

The unit

The Bachelor of Nursing course at Deakin University is for registered nurses committed to understanding and improving their clinical practice. In first semester of the first year of the study the unit, Searches for Meaning in Nursing 1: Phenomena Encountered in Nursing (NPR305), is compulsory. Offered for the first time on-campus in 1989, it was first offered to off-campus students at the start of 1990. This cohort became the first of the two major case studies of this dissertation.

The substantive material was covered by print texts (see below) but students were supported especially by library facilities, close liaison (generally by correspondence and telephone) with the relevant unit team and audioteleconferencing.

All off-campus students were invited (by letter) to participate in the teletutorial program. Some flexibility in day and time was offered and students received a brief handout covering the perceived advantages and logistics. Although 39 of the 41 students eligible indicated their willingness to participate, on each of the three occasions the number of students involved was lower: 26, 28 and 27 respectively. The intention had been for group size to be approximately ten and for group homogeneity to be retained to as great an extent as possible. However, administrative errors meant that there were eight parallel sessions in the first round with as few as two students being connected
The endeavour was described as "costly in financial and human resources" (Thompson and Taylor, 1991, p27). The total line charges were $2957.92, representing an average cost of $36.51 per student. One overseas student was connected each time for a total charge of $355. The tutor spent 12 hours directly involved in teletutorial calls, and considered it was impossible to quantify indirect time. As far as technical and pedagogical advice were concerned the telecommunications officer and myself, as a consultant, contributed a minimum of fifteen hours.

**Rationale for conducting teletutorials**

The Bachelor of Nursing course reflects fundamental beliefs that clinical work is the central business of nursing and that knowledge generated in nursing practice is the core of a practice discipline. This engenders respect for practitioners' knowledge but, at the same time, students are challenged to think critically about their practice. This means that students who typically feel vulnerable about their ability to cope with tertiary study simultaneously have their confidence threatened in an area where they have generally felt very secure - their role as practitioners. Hence they need special support and assistance in their efforts to reconcile apparent tensions.

The emphasis of NPR305 is on active learning processes; the curriculum making it clear that students are expected to engage with the learning process:

> Students will not ... be passively absorbing and assimilating knowledge. They will be engaged in actively accumulating, developing and constructing the personal nursing knowledge which they will use as they engage in graduate practice.

If students are to be active, rather than passive; if they are to go beyond the information presented to construct their own meanings, it was considered incumbent on the curriculum developers to provide a framework for the realisation of the philosophical intent. The written introduction to the unit NPR305 used words premised on activity and collegiality, words such as 'exchange', 'interact' and 'share':

> This unit and course values the experience you bring, both as a person and as a professional. Through a process of exchange between people in unit content and processes, the Unit Team aims to increase your experience and knowledge
even further. The Unit Team believes that the learning which comes of this unit will be mutually rewarding, as you interact within the unit bringing to it your skills and knowledge as a nurse, and as you share your experiences with your peers in a collective exchange.

To facilitate these aims some infrastructure for dialogue was required. The tutorial had accommodated this need for on-campus students, but (especially in the context of a national and international cohort) to provide similarly for off-campus students at the main campus or at regional study centres was deemed problematic for both institution and students. It was considered that circumstances such as geographical remoteness, career and family responsibilities, as well as financial pressures, would probably constrain attendance. Without opportunities for discussion it was contended that off-campus students would be deprived of an essential part of the university experience and, in this instance, a critical aspect of the desired learning process, collegial exchange, would have been lost. On the basis that "the critical point in terms of a philosophy of distance education is the principle of equality of opportunity" (Gough, 1984, p23) it was considered imperative to provide a viable option to the traditional tutorial. This was found in the teletutorial.

The use of the data

As I became increasingly interested in and committed to the method of discourse analysis, it was logical that this case study would be the one used this way. Hence, while these data inform the more general chapters (5 and 6), they have been drawn on most fully in Chapter 7.

There were many excerpts that could have been selected for analysis, and many themes that could profitably have been explored. As other discourse analysts have recognised (see, for example, Labov and Fanshel, 1977, and Grimshaw, 1989), the multifaceted and complex nature of conversation mandates that there will be many approaches to an understanding of it. Further, what Grimshaw (1989, p520) describes as "the idiosyncratic nature of interest in a corpus of conversational text", means that not only, as he notes, is the goal of comprehensiveness illusory, but that the interpretation is vested in the analyst and individual interests and concerns.

In the space of this dissertation it was decided to explore one theme in reasonable depth and that theme was the dominant one that emerged from my reading and hearing of the related texts of the teleconferences, themselves, the interviews, and, to a lesser extent, the journals and questionnaires.
THE SECOND MAJOR CASE STUDY

Rationale for selection

The selection of the second tertiary provider was made for many carefully considered reasons. The initial contact with the university had come through a shared interest in audioteleconferencing that surfaced when I presented a conference paper and I was invited to two New Zealand universities to see and hear their audioconferencing facilities and to meet staff with involvement in that area. At the same time I had read a newspaper report* that named an academic who had special interest in the pedagogy of audioteleconferencing. During the visit I was able to meet him and one of the tutors and we decided some collaborative research would be of mutual benefit. We agreed that the research design would develop from my work at Deakin University and that it would be fully discussed/negotiated before implementation. Further, the research design was approved by the departments involved and that university's ethics committee.

Probably the most significant reason that led to the collaborative research between the two universities is the very different structure of audioteleconferencing at both institutions. The Deakin norm is that all are involved and able to contribute at all stages; the second model is a selected contribution with connections to groups rather than individuals. Deakin usually chooses to connect low numbers (usually fewer than 10); the 'Unitel' bridge, which services New Zealand tertiary providers who use audioteleconferencing, is generally used to connect high numbers (up to 60, with approximately 50 in this particular course).

A further attraction was some interesting apparent similarities and differences between the two units of study. Both were concerned with the same discipline (the Health Sciences) but one was at first year undergraduate level, the other at first year graduate diploma level. Both were new programs and were being offered this way for the first time with both universities seeking information to influence how off-campus courses of study could best be handled. Both used print as the base but chose to supplement this by audioteleconferencing. In the first case study, the tutor was completely inexperienced; in the second, two of the tutors were new to working in this medium but the coordinator had been using audioteleconferencing for several years.

* This report has not been cited for ethical reasons.
Rationale for conducting teletutorials

The University concerned has been using audioteleconferencing for many years for group based learning and the coordinator of the course is committed to teaching and learning this way.

The use of the data

These data have been used where it was felt a more extended illustration and developed discussion were needed to support a particular point in the general Chapter 6. Chapter 6 has been conceptualised as an exploration of themes that emerged from the literature and these data make a significant contribution to that discussion. They have been omitted from the conceptual discussion of Chapter 5, as the model of teleconferencing is different from that of the other three case studies that have been drawn on there.

SECTION 2: WRITTEN DATA

QUESTIONNAIRES

To provide a foundation for the later data of interviews and the teletutorial sessions, themselves, the questionnaire proved a useful instrument with a total of 237 returns contributing to this study. A summary is provided as Appendix 1b. Although the questionnaire was customised to individual groups surveyed, Appendix 1c provides a representative sample.

In designing the initial questionnaire, the perceptions of the students (as revealed by a telephone interview with a small subset), the tutors, the Telecommunications Officer and the two researchers* were combined to produce a document that was considered capable of giving detailed material in a range of perceived areas of significance.

The first bracket of questions was aimed at finding out something about the students’ personal circumstances; their degree of experience with teletutorials/teleconferencing; the physical circumstances in which they took calls and the attitude with which they approached the teletutorials and whether that attitude had changed as the teletutorial program developed. Information was sought on how the attitude had changed and what

* The other researcher was Margaret Grace and this study is reported in Grace, Margaret and Thompson Diane, (1989) Adding 'Tele' to 'Tutorial: A formative evaluation of selected teletutorials conducted by Deakin University in second semester, 1988.
the student believed had caused that. In the 1988 questionnaire, in an attempt to
discover some sense of the value of the calls to students, they were asked how they
became involved in the program at Deakin; whether they would continue that
involvement if it were voluntary and they had to pay all or part of the personal costs; and
what factors (if any) outside course requirements and costs would influence the decision
to participate in teletutorials. Because of concern with technical problems, students
were asked if they were confident that they knew what to do if cut off during a
teletutorial, the number of times (if any) this had occurred and their perceptions of the
time it took to be reconnected.

In the next section students were asked what they thought should be the aims of
teletutorials, and to what degree these aims were met in their experiences. With a
separate page being provided for each teletutorial in which the student participated, they
were next asked to evaluate up to three individual teletutorials according to thirteen
nominated items: value of information received prior to the teletutorial; punctuality of the
call; audio quality; quality of own preparation; quality of own participation; quality of
presentation by the tutor/lecturer; value in answering specific queries; value in clarifying
course requirements; value in stimulating an exchange of views/information; value in
stimulating own study; value in reducing any sense of isolation. As well students were
invited to provide an overall rating. The categories nominated were 'Excellent',
'Good', 'Adequate', 'Inadequate', 'Very Poor' and 'Not Applicable'. Students were
given the opportunity also to make any other specific comments. Because this question
has provided the main quantitative data for this study (see Chapter 6), these data have
been aggregated and are shown as Appendix 1d. (The qualitative data were collated but
as they were not codified space constraints have precluded their incorporation as
aggregated data.)

The final summative section sought information on the students' overall perceptions of
the value of teletutorials and their advantages and disadvantages for teaching and
learning. While the questionnaire was designed to be comprehensive, on the
assumptions that no questionnaire covers all angles and allows for all possibilities, and
that some areas respondents may wish to raise could well be of an idiosyncratic nature,
students were encouraged to make any further comments on the final page which was
left blank. As a conclusion, students were asked if they would be prepared to
participate in a follow-up telephone interview and to provide a contact number and
preferred contact time.
With the second minor case study, for those students who participated in teletutorials the same questionnaire as used in the pilot first case study was retained with some minor amendments. Four areas were deleted: historical data from students that sought information on experience with off-campus studies and the year of the student's first teletutorial (students had some difficulty with responding precisely to these questions); information on how the student became involved (essentially gained from other sources such as Course Guides)*; the influence of contributing to cost (seen as raising unnecessary anxiety and adequate data had already been aggregated); information on how students handled technical problems (external events had lessened the need to seek information in this area). While the final section was essentially retained, one additional question was inserted as a reaction to the responses of the previous semester. Students had been asked if they would like to have teletutorials more frequently, and it was thought that their responses ('Yes', 'No', 'Uncertain') needed to be set in the context of how frequently they currently received teletutorials.

For the first major case study, the questionnaire I designed in collaboration with the tutor was essentially to seek information about the unit as a whole. The only question that directly involved teletutorials was the specific ranking question (described above) for the final teletutorial, although several students chose to write about teletutorials in the context of the general final question and an earlier invitation to nominate a feature of the unit that they particularly wished to see retained and to indicate why they held that view. Similarly, although not listed in the table that forms Appendix 1b, students being surveyed for a postgraduate Nursing unit in the same period also made reference to teletutorials and their comments have been incorporated into these data.

With the second major case study, for comparability of data the format and questions that were used in the earlier questionnaires were retained. Some questions, such as that seeking level of satisfaction with the location in which the call was taken, were developed to gain information on how students felt about having to travel to a centre to take the call. Using the table from earlier questionnaires, students were asked to rate the three teletutorials that had been selected for recording and around which the interviews had been structured. Two new questions were added:

- The Deakin model of teletutorials links small groups (normally fewer than 10) at individual locations with everyone able to contribute at all

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*Course Guides*, in this instance, has been used as a generic term to cover written materials that are variously titled 'Unit Guides', 'Subject Guides' and 'Study Guides'. In Chapter 7 the title used at the time of the research - 'Subject Guide' - has been retained.
stages. What are your thoughts on this approach to teleconferencing when compared with the ... model?

- What changes, if any, do you notice when the tutorial moves from face-to-face group discussion to audio-teleconference?

For all questionnaires an accompanying letter outlined the purposes of the questionnaire and encouraged students to complete what was acknowledged as a 'time-consuming task' as they had unique perceptions to offer. Students were assured that their responses would be treated confidentially and that the survey bore no relation to academic performance or record. Although there is debate about the ethics and desirability of anonymous as contrasted with named questionnaire responses (see, for example, Bradburn and Sudman, 1981, pp131-133), I have consistently used questionnaires that have the student's name printed on the cover page. My experience with using student evaluation in a number of instances has convinced me that some students use the protection of anonymity to make gross comments and accusations and there is no possibility of following them through. Conversely, in a significant number of occasions where student comment has alerted me to serious situations, because the student is identified it has been possible to respond constructively. Further, where the student's name is known it is possible to omit tedious background questions (such as gender, location, age) that can readily be provided by university computer records. Although it is probable that such identification dissuades some students from responding (and on rare occasions students have returned questionnaires with their names carefully removed), many students have indicated that they wish to 'own' the responses and the thoroughness and care with which the bulk of questionnaires have been completed bear testimony to the commitment of many students to respond constructively to invitations to comment on aspects of tertiary education.

JOURNALS

One of the attractions of using journalling in this study was its integral connection with the case study of the Deakin University Faculty of Nursing where journalling is a substantive part of the course. In her monograph prepared for Deakin University, Keeping a personal-professional journal, and used in NPR305, Holly wrote (1984: 1987 p4):

A journal is not merely a flow of impressions, it is impressions plus descriptions of circumstances, others, the self, motives, thoughts, and feelings. Taken further, it can be used as a tool for analysis and introspection. It is a chronicle of events as they happen, a dialogue with the facts (objective) and interpretations
(subjective), and perhaps most important, it is an awareness of the difference between facts and interpretations. A journal becomes a dialogue with oneself, over time.

As Green (1980: 1990, p:50) pointed out, the journal "contains three distinct orders of discourse: what the writer wants to say, what he [sic] doesn't want to say, what he [sic] cannot say" (emphasis in original). Such an awareness has influenced how I have interpreted the journal responses and set them in the context of other discourses.

As a prelude to incorporating journals into the research of both case studies, the issue of journalling was raised with some students in other disciplines in telephone interviews. Although there was general reservation about the time journal entries would take and some uncertainty about what would be entailed, three students in three different teletutorial programs agreed to record their thoughts and feelings before and after each of the teletutorials. Of these, one received from a postgraduate student (Faculty of Social Sciences) indicated that this form of inquiry could provide information of a far more intimate nature than had previously been the case and encouraged the pursuit of this method.

In the first case study (NPR305, Deakin University, Faculty of Nursing) those students participating in the audio-tape-recorded teletutorials who were interviewed by telephone were requested to make brief journal type entries where they wrote anything that they considered pertinent to their teletutorial experience. Although the intention of the telephone interviews was that the discussion should be fairly open and unstructured, it was accepted that generally the student responded to areas raised by the interviewer and it was thought useful to allow students some opportunity to reflect and note points at their own initiative and in an unstructured way. While there was general agreement to contribute to our understanding of the teletutorial process in this way, as these students were already engaged in the research by telephone interviews and by questionnaire, it is understandable that few students were prepared to undertake this additional task, even though it could be incorporated into their course journal. The six contributions received were (with one exception) extended and thoughtful responses and while there were readily apparent similarities each incorporated distinctive insights.

With the second major case study the three academics involved with the paper completed journals. Although naturally they were of varying length, style and content, each was valuable as indicating personal responses and revealing what each chose as significant to record. In the initial letter to students, one option of contributing to the research was by making journal entries and seventeen students volunteered. Very open guidelines were
provided and students were encouraged during the two teletutorial sessions in which the research was involved to retain their involvement in this way. Again the number received was far lower than the number of commitments: 7 of the 17.

From the three occasions when journalling was used it seems that this is a burdensome and difficult task to place on students. Even when journalling is a valued and integrated part of a course and students can be assured of both tangible (in terms of assessment) and probable intangible results (in terms of their maturation and learning), there is often withdrawal from the experience as well as a reluctance to disclose by those who conform to course requirements: see, for example, Modra (1991). In this instance there were no obvious incentives to motivate students to undertake the often demanding tasks of critical reflection of themselves and others, and to sustain the effort over several months. However, for those students who were prepared to make a personal commitment in terms of time and effort and were willing to engage actively in the process of reflection, the contribution to the research was invaluable. Of particular benefit was the fact that sequential entries showed development and, on the assumption that most were written immediately before and after each session, they conveyed what the student felt at that particular time. Further, as I discussed with one student in an interview:

In many ways it's much easier to process questionnaires, but I've found in my research that the level of information I get from interviews and journals is much richer because you engage in a different level of dialogue, and people, once you start talking with them, tend to say things as they are and stop telling you what they think you want to know (Yes) and it's more helpful because what we're trying to do is sort out in practice what's working, why it's working, what's not working, why it's not working, what we can do about it.

Yes, yes. Yes, I can follow that. I think writing in a journal is a lot more spontaneous, isn't it? The prevailing circumstances sort of come through which a questionnaire could never pick up.

And the other thing is that it's not influenced by the person doing the research. You write what you think is important, whereas if I ask you a question you're responding in terms of my context, my concerns, my parameters.

Yes, I can see that, yes.

And I think it's very important for you to say what you think.

(Janet, postgraduate student, Health Sciences, Interview, 24.9.91)

In response to concerns that the students could possibly gain from their contribution to the research (See Chapter 3: section 3), it is pertinent to note that several students ended their journals with personal messages. While these usually expressed a hope that their contribution was of value, occasionally students revealed the significance of the journal writing for them. For instance:
I have enjoyed this exercise for in some ways it focussed things for me. (Heather, postgraduate student, Health Sciences, Journal, 5.11.91)

**COURSE MATERIALS**

In each of the case studies the teletutorial was supplementary to print course materials. In both the major case studies those tutors teaching by audioteleconference had written the study materials. Hence they had already engaged with the pertinent issues in written text and the students had experienced their approach to the subject. To varying extents the teletutorials and the printed course materials were integrated.

An interesting similarity is that, for both these case studies, the course was being offered for the first time. This meant that the study materials were current and had recently been at the forefront of the tutors' attention. However, in both instances, the written material suffered from the fact that it had not been trialed with students and the teleconferences revealed student concern with errors as well as some disturbing indications of inadequacy. Deakin University is reputed for the very high production quality of its course materials and it should be recognised that this particular unit had received reduced instructional design support due to the short lead time between conception and offering and that this package represented a 'pilot' and so had not been given detailed production input. The material from the New Zealand university was far more basic in design and represented a lower level, again, of production, being more a set of collated hand-outs than a series of publication.

**ADDITIONAL WRITTEN DATA**

To ascertain the extent and type of use of teletutorials a chart was prepared. This showed for each teletutorial the date, time, course, convener; the location at which the convener took the call; the anticipated number of participants who would be connected and the actual number connected, the number of overseas connections anticipated and the number that eventuated; the connection length for the convener and the longest and shortest connection lengths for students. Finally the connection charge and the total cost were recorded.

The student convenor of one group of Commerce students with whom I had had some contact by questionnaires (see above) contacted me by telephone in 1991, concerned that the group had been advised by the Faculty that support for student-driven teletutorials would be removed. This group of ten remotely located MBA students then, at their own
initiative, sent me a series of faxes stating why they believed this program should be retained.

SECTION 3: SPOKEN DATA

INTRODUCTION

As Mishler (1986, p47) recognised, where speech is taken seriously it is incumbent on researchers to pay close attention to the linguistic and paralinguistic features of natural talk. He claimed that even in illustrative excerpts in reports of interview studies it was rare to find such details as pauses, nonlexical expressions, speaker interruption and overlaps. Although in this study the nonlinguistic features of gesture, facial expression and body movements are of less import because much of the spoken data are from visually deprived telephone interviews and sessions, a transcript from an audio tape will not reproduce adequately such features of speech as pitch, volume, tone and speed. I concur with Mishler (p48) that each transcript is only a partial representation of speech and that each representation is also a transformation.

Hence in this study the transcription of the spoken data was seen as problematic. As discussed above, it was decided that the transcripts should form the basis for the initial analysis and interpretation for practical reasons as the written text was far more readily accessible than the spoken one. However, as the study progressed because there was a conviction that it was counter both to its philosophy as well as its integrity to replace spoken utterance with written text, it was decided to retain and integrate the spoken discourse.

INTERVIEWS

In their Introduction to *The Research Interview*, Brenner et al (1985, p1) described the research interview as "a social process of considerable complexity". Stewart and Cash (1974: 1978, p45) concluded that "interviewing is a dynamic, complicated process between two complex parties operating with imperfect verbal and nonverbal symbols and often guided or controlled by the situation". Yet, as late as 1983, Kahn and Cannell (pvi) suggested that "the most common approach" to interviewing implied a simple confrontationist model: the respondent having somewhere inside information which the interviewer wanted and the interviewer seeking the release of that information. Such a
position is epitomised by Macoby and Macoby (1954, p449) in their definition of an interview as:

... a face-to-face verbal interchange, in which one person, the interviewer, attempts to elicit information or expressions of opinion or belief from another person or persons (my emphasis).

Not only would most of my research interviews be excluded under this definition as they are not face-to-face, but the structure and philosophy of the interview taken in this study are very different.

As Hart (1954, pxi) recognised, research inevitably is a product of its period, reflecting the reality conditions prevalent at its time. Hence, for a project undertaken in the 1990s it is highly likely that recent approaches to interviewing will be influential. Yet, while I have responded to contemporary theorists and researchers such as Kahn and Cannell (1983, pvi) who suggest that fundamental to the interview is to see it as an interaction between the interviewer and respondent in which both participants share, this is not a novel approach. In a seminal early text on interviewing, Bingham and Moore (1931: 1966, p265) put as their first and most important conclusion that "the interview must be seen as a process of interaction between persons". Even at this early stage they were not claiming an original viewpoint, but they believed the idea had not received the attention it seemed to merit and that the implications of taking such an approach were far-reaching and important.

Where interaction rather than interviewer dominance is the premise, the language is inherently indexical for the discourse is developed and shaped by each speaker with the discourse jointly constructed by interviewer and respondent (Mishler, 1986, pp64, 52). I concur with Brenner et al (1985, p3) that "probably the central value of the interview as a research procedure is that it allows both parties to explore the meaning of the questions and answers involved" for the direct communication offers the possibility of exploring the subtleties of mutual understanding.

In contrast to structured interviewing (see, for example, Merton and Kendall, 1945), where the interview becomes the oral questionnaire and dialogue is suppressed, 'creative interviewing' responds to the dynamics of the interview itself to engage in dialogue. In a text given this title, Metzler (1977, p10) claimed that in creative interviewing "the conversation not only elicits information; it permits an exchange of information to produce a level of intelligence higher than either participant could produce alone". As Killenberg and Anderson (1976, p17) appreciated that while the interview is, in many respects, a guided monologue, where it becomes dialogue there is potential
to move into valuable unexplored territory as unanticipated ideas are generated. Further, as Nichols and Stevens (1957, pp51-52) pointed out:

Whenever we listen thoroughly to another person's ideas we open ourselves up to the possibility that some of our own ideas are wrong.

Douglas (1985, p22) defined creative interviewing as "purposefully situated interviewing". For him, this style of interviewing meant that it 'embraces' the situation of the interview, trying to understand how it is affecting what is being communicated and, through understanding these effects, the communication process is, itself, changed. The aim is for a mutual co-operative search for understanding that will facilitate disclosure of what the person being interviewed really perceives as the truth. This is the crux of the matter. Douglas stated (p15) that his motivation for involvement in creative interviewing was the question, "How was I to know what they were telling me was true? How was I to see the fit and the inevitable nonfit between words and more important human realities?" Kahn and Cannell (1983, p59) were concerned with similar issues:

If the interview is a product of interaction, what becomes of the conveniently simple notion that the ideal interview is something that springs from the soul of the respondent to the notebook of the interviewer without encountering any contaminating influences en route?

They then asked:

And what becomes of the corollary notion that any vestige of interviewer influence in the interview process constitutes bias and must be avoided at all costs?

Following a hermeneutic paradigm (see above), the response to such concerns is to interpret interviewer involvement in a positive, rather than a negative, sense. While there is recognition that there is the potential for personal interviews to be distorted and invalid and appreciation of Cannell *et al*'s conclusion (1975: 1977, p4) that "the interviewer's performance may be responsible for these biases", if the interviewer achieves successful interaction by playing an active roll in maximising the fullness and completeness of the communication, such involvement can be highly productive. 'Can be' has been written advisedly, as the connection between interviewer involvement and productive outcome is not axiomatic. To illustrate. In an interview situation where the respondent says, "Well, I'm uncertain if we should spend as much of our resources on teletutorials as we currently do. I rather think we shouldn't" and the interviewer responds with, "Well, that's not how I feel" and moves to present a case in defence, the
bias is unwanted and will distort. If, however, the interviewer responds with, "You seem uncertain. Why do you think we shouldn't?" and, after that response, asks, "What would influence you to support a higher resource commitment?", by probing the interviewer has built on what the respondent has said and, sensitive to the expressed uncertainty of the initial response, has been careful to look at both sides of the response. In this second response the interviewer has not indicated her own sympathies. There is a growing body of literature (see, for example, Mishler, 1986 and Paget, 1983a&b) that argues that, for the communication to be really meaningful, then it is important for the interviewer to give opinions as well as take them. Where this happens the bias is known and intended. Here such a response would have been, "Well, fairly obviously, I have a commitment to teletutorials and believe they are cost effective. I would be interested in how you would react to ..." and some key issues that are believed to support that viewpoint are brought forward. Another option would be, "I find this is quite a difficult issue as there are so many ways of interpreting and judging. What are the important issues for you in prioritising resource allocation?" Here the initiative for the response has remained with the person being interviewed and that person can feel comfortable that the initial uncertainty and the continued exploration are perfectly acceptable responses.

While much of the literature has been concerned with the extent of interviewer involvement and the danger of bias (see, especially, Hyman et al, 1954: 1975), it should not be assumed that the potential for bias is only with the interviewer. Ellis' research (1947) indicated that in sensitive areas accuracy may be a casualty to ego and Phillips (1973) found that where respondents do not evade sensitive issues in interviews then their answers are likely to be invalid. Hence there is a need for interviewer understanding. Listening must, however, contain more than empathy; it must contain perception. It is important to hear not only what is in the words but what the words do not say (Metzler, 1977, p116). Further, one of the crucial tasks of the interviewer is to create a relationship with the respondent where that person can feel that any point of view expressed is equally acceptable - that there are no 'right' or 'wrong' responses. Moreover, respondents need to feel confident that whatever response is made will be acceptable in terms of the personal standards they have set for themselves (Kahn and Cannell, 1983, p126). To achieve this the development of the interaction is premised on the need to establish a relationship of mutual trust. Hence the interviewer must listen in a non-judgmental way. As Rogers and Roethlisberger (1952, pp49-50) found:

The solution [to communication breakdowns] is provided by creating a situation in which each of the different parties comes to understand the other from the other's point of view. ... This procedure can deal with the insincerities, the defensive exaggerations, the lies, the "false fronts" which characterize almost
every failure in communication. These defensive distortions drop away with astonishing speed as people find that the only intent is to understand, not to judge. This approach leads steadily and rapidly toward the discovery of truth...
(Emphasis in original)

Mishler (1986, pvi) put at the 'heart' of his reformulation of interviewing "the proposition that an interview is a form of discourse", yet he claimed (pvi) in the mainstream tradition the idea of discourse is suppressed. What he wrote in his Preface (pvi) is a cogent summation of the approach I have followed in my work in this area.

... an interview is a form of discourse. Its particular features reflect the distinctive structure and aims of interviewing, namely, that it is discourse shaped and organized by asking and answering questions. An interview is a joint product of what interviewees and interviewers talk about together and how they talk with each other. The record of an interview that we researchers make and then use in our work of analysis and interpretation is a representation of that talk. How we make that representation and the analytic procedures we apply to it reveal our theoretical assumptions and presuppositions about relations between discourse and meaning.

Although the interview data are studied as 'discourse', as Tracy and Baratz (1993, pp304-305) noted, it is 'meta-discourse', giving us "people's direct reflections about their own and others' concerns". To assess meaning in interviews requires analyzing the interview process so that we can begin to understand how meaning is grounded in and constructed through the discourse (Mishler, 1986, p64). There is a need also, as discussed above (see Chapter 2: section 4), to be sensitive to the different interview experience of face-to-face and as mediated by the telephone. Further it is imperative that the audio-taped data of the discourse be analysed appropriately.

While Brenner et al (1985, p1) could claim that it is now possible to produce 'systematic quantitative summaries' of interview responses by content analysis and multi-dimensional scaling techniques, and that these data "can now form the basis of research activity", other writers outside of the mainstream tradition have not suppressed the idea of the interview as discourse. As far as an approach to interviews is concerned, I have found the work of Mishler (1986) of greatest relevance. He identified four propositions as 'essential components' of research interviewing: interviews are speech events; the discourse of interviews is constructed jointly; analysis and interpretation are based on a theory of discourse and meaning; the meanings of questions and answers are contextually grounded (pix). Through Mishler's reference to Paget, I encountered a model of interviewing that combined "detailed description of linguistic features of spoken discourse with the hermeneutic tradition of interpretation" (Mishler, 1986, pp96-97). Paget (1983a) appreciates the evolving nature of the exchange (the distinctive
feature of in-depth interviewing is that "the answers given continually [sic] inform the evolving conversation", p78; she views interviews as jointly produced discourses in which the interviewer is "always implicated in the construction of the phenomena analyzed" and where the respondent, too, is engaged in a search for understanding (p78); she is concerned with context to analyze both the question and the response (for the exchange "cannot be severed from the shared historical understandings which it presupposes without radically shattering its meanings", p79); her analysis of relations between questions and replies is grounded in the "dialectic of the interview" (p80). Moreover, Paget explicitly recognizes her presence as an interviewer and ponders its implications. In the interviews I have striven to apply such precepts.

Benner et al (1985, p3) contended that it was a willingness to regard individuals as valuable sources of particular information, "as the hero[sic] of their own drama", that was "at the base of the resurgence of interest in various interviewing procedures". In this research I have found it extremely productive to foreground the figures of the participants in the teletutorials and to do this by interviewing. An early study (Cannell and Axelrod, 1956) reported that more than ninety percent of the interview respondents in four major sociological surveys found the experience enjoyable. Several students commented during the interviews that they found the experience of value and appreciated the opportunity: "I thought it was great having someone ring me, to see what I thought of it" (Jenny, undergraduate student, Nursing, Journal, 3.4.90). For one student who had participated in five telephone interviews, the experience was one she had "actually warmed to". She said:

I mean, if I felt I was being interviewed and my voice was going to be played over the radio, I would have been very hesitant and very sort of so suspicious of what was going to be done with my production that I would have been listening to myself speak and then tying myself up in awful knots. But because this is done on a much more confidential sort of basis, I've really enjoyed finding out - really listening to myself in a different sense; realising that I actually do process things a lot more fundamentally that I'd actually given myself - what's the word? [Credit] - credit for. (Janet, postgraduate student, Health Sciences, Interview, 30.10.91)

For the researcher, I concur with Brenner et al (1985, p3) that there is "an implicit, or explicit sharing and/or negotiation of understanding in the interview situation which is not so central, and often not present, in other research procedures". Further, in contrast to the extended ethnographic interview:

... this research strategy gives us access to individuals without violating their privacy or testing their patience. It allows us to capture the data needed for penetrating qualitative analysis without participant observation, unobtrusive observation, or prolonged contact. It allows us, in other words, to achieve
crucial qualitative objectives within a manageable methodological context. (McCracken, 1988, p11)

As discussed above (see Chapter 2: section 4) many of the interviews were conducted by telephone. Bailey (1987, p203) concluded:

... even though telephone interviewers cannot achieve exactly the same degree of trust and rapport that they could in a face-to-face interview, where they can establish eye contact with the respondent and can communicate nonverbally, there is still evidence that this decrease in rapport is rather slight and does not seem to result in inadequate data for most types of questions.

Cragg (1991), however, who also interviewed Nursing students by telephone, considered (p43) "it is possible that the informants were not as open as they might have been in a face-to-face discussion, especially about negative reactions" and concluded "For this reason we suspect the telephone interviews provided data that was less rich than what might have been elicited in a face-to-face setting". The data of this research lead me to conclude that, while the technology did mediate the communicative experience in significant ways (see the following chapters) the telephone did not impede openness. The more critical determinant was the research design that allowed for several opportunities for discussion over an extended period, rather than the one contact, as with Cragg's research. Further, there were occasions when the same students and tutors were interviewed both face-to-face and by telephone. Analysis of these interviews suggests that, although differences in levels of forthrightness and expression of negative reactions were not discernible, there were some variations. For instance, there was a greater likelihood to distraction and discussion of extraneous matters in the face-to-face interviews but, at the same time, the lack of visual cues was a restriction. As discussed above (see Chapter 2: section 4), the role of the tape-recorder was different in the face-to-face and telephone situation. This technology, also, had an important mediating role on both the interviewing and the manipulation of the data generated.

Interviews with tutors

All those who had conducted teletutorials that formed the two minor case studies were interviewed. While the same core issues were canvassed, the discussion was tailored to suit individual cases, in accordance with the interviewer's perceptions of the tutor's approach and drawing upon the comments and evaluations of the students. The framework of the interview was open, allowing the tutors to raise and develop points of view as they wished. This meant that tutors had the opportunity to expound their aims
and educational philosophies in regard to teletutorials, and also to respond to divergent views expressed by others. In particular, they were invited to indicate their reactions to their own teletutorials and express their views of the function of teletutorials in distance education.

In the next stage of this study, all tutors participating in the teletutorial program at Deakin University were approached to have their sessions tape-recorded (see below). Where tutors gave their consent to have their teletutorials recorded they were interviewed at least once, and in most instances both before and after their first teletutorial. Because of the large number of tutors prepared to participate in the research it was recognised very early that it would be impossible and probably unproductive to tape all sessions of all tutors who had given their consent. Hence it was decided to tape some sessions for most tutors (based mainly on what they found most convenient) and all sessions in three units: one in Nursing and two in Social Sciences. This selection was based on the support and interest the four tutors involved had shown in the research and the fact that none had been substantially involved in earlier data collection. In the three central studies the tutors were interviewed face-to-face on several occasions (as many as six) at different stages of the semester's teletutorial program. With the tutor's consent, the interview was tape recorded. While the interview was unstructured (see earlier comments), the essential aim was to discuss with each tutor what his/her goals were for the teletutorial and his/her perceptions at this point and then to set those alongside what actually occurred as perceived by the tutor, myself and the students. Tutors observed in face-to-face teaching were interviewed similarly to the approach outlined for teletutorials.

All of these interviews were face-to-face, in contrast with the final group of interviews and with interviews with participating students (see below) which were conducted by telephone. The main tutor involved with the second major case study was interviewed before and after each of the three designated sessions. An attempt was made to include the other two staff members but it was only possible to include one of the two other tutors on one occasion. A tape-recorded conversation involving all three staff members was provided.

**Interviews with participating students**

The first interviews with students had the objective of seeking their perceptions to influence the design of the initial pilot questionnaire. After listening to and observing the way the first group of teletutorials was conducted, preliminary telephone calls were made to four of the students who had participated. These students were selected on the
basis that they were able to be contacted at the times available (these included evenings); that at least one person of each gender was included and that each was willing to contribute in this way to the research.

The next group of interviews to inform this study was related to the audio-taped sessions (see above). The original research plan was that, for each teletutorial recorded one of the students would be contacted by telephone both before and after the session. Because of the higher than expected number of sessions involved (71), this was constrained by both time and cost. 38 students were interviewed with 20 of these on more than one occasion: a total of 84 interviews. In the three core units in most instances it was possible to speak with a student both before and after each of the teletutorials. In NPR305, the first case study, where there were 16 taped teletutorials in all, there was a total of 26 interviews with students. Students were selected for the first interview on a random basis but the determinant was often availability. The pattern of interview was essentially the same as for the tutors (see below) and, again with each student's knowledge and consent, the call was taped. Students were assured that their contributions would be handled confidentially and that, while the tutor was aware that a student in the group would be contacted for comment, the tutor was unaware of who that person was.

Where tutors were observed in face-to-face tutorials, a student was again interviewed but it was not always possible to interview the student before the session. In cases where students were seen by their tutor to be in exceptional circumstances, these students were contacted for a separate telephone interview. In one course, where there was concern with the low number of participants, an attempt was made to contact by telephone those who had chosen not to be involved in the program and to discuss their attitudes with them, attempting to determine what factors had been decisive.

With the second major case study because of the costs involved, it had been determined at the outset that two students only could be interviewed. Everyone who had offered to participate in the interviews was thanked and an explanation provided. Given the high number of offers (25) we could make a careful selection based on time availability and location - one from each of the main islands with one part of a larger group and one isolated. As all offers came from females (the paper had only two male enrolments) gender was not used in the selection. Unfortunately, the person selected to discuss the experiences of those in study groups withdrew early in the semester, but after the first pair of telephone calls.
The only group face-to-face interview was with a group of ten MBA students who spoke with me for over an hour at their final residential school. Articulate, enthusiastic and very interested to discuss the role of audioteleconferencing in their study, these students participated in a most valuable interview.

**AUDIO-TAPED SESSIONS**

To generate comprehensive data it was decided to audio-tape-record all teletutorials at Deakin University for one semester: the first semester, 1990. Although it was recognised that this decision would be very time intensive and difficult to implement, I did not wish to preempt the use to which the data could be put by establishing selection criteria at this stage.

As tutors indicated their intention to the Telecommunications Officer to conduct teletutorials, they were contacted by letter. This explained the purpose of the request to tape record the teletutorials and sought written consent: "I am aware that you intend to tape record my teletutorials and I give you my approval, providing that in each instance I have the unanimous approval of the students concerned". (The option of denying consent was provided for also: "I do not give my approval to have my teletutorials tape recorded"). Tutors were encouraged to contact me if they had any aspect of the research or teletutoring they wished to discuss and were informed that, if they acceded to the request, they would be contacted to discuss such issues as confidentiality and ownership of data and to make the necessary administrative arrangements. Four tutors indicated they did not wish to have their sessions taped and for practical reasons a further four could not be involved. This meant that the other sixteen tutors participated.

With the co-operation of the Telecommunications Officer, arrangements were made to tape-record all teletutorials where signed approval had been given by the tutor concerned. In some instances the teletutorials were taped in the Telecommunications Centre, in others by the tutors themselves at the location of their call. In the latter instance one tutor, who had initially given approval, found that for entirely practical reasons his teletutorials could not be recorded and this group was deleted from the study. In a few instances, circumstances beyond the researcher's control meant that individual sessions were not taped.

Teletutorials were recorded for all Faculties where they were used in this semester: Education (3), Nursing (16), Social Sciences (48) and Sciences [Psychology] (4). Management was the sole exception as substantial data had already been obtained (sec
above) and the earlier case study had been premised on an agreement that these MBA students would not be involved in a longitudinal study. Thus 71 sessions were recorded.

In the research that formed the second major case study, with the consent of all involved, the three designated teletutorials were tape recorded. As an important issue to be researched was the differences (if any) between the tutorials on and off air, recording the group sessions at the eight main centres was included as well as the small group of individual students connected by telephone. The intention had been that each of these face-to-face group discussions would be available on all three selected occasions, however, on three occasions tapes were returned unrecorded due to faulty or missing equipment, and instead of the anticipated 27 small group tapes, 14 were provided. Most disappointing was the omission of any of the remote group sessions from the third and final round as the tutor concerned had forgotten to provide tapes to these groups.

In all cases where tutor approval to tape-record the teletutorials was given, information was collected on how teletutorials had been presented to the student, what communication there had been and what agenda (if any) had been set for individual sessions.

As a separate initiative, the ten MBA students referred to above, offered to tape their final sessions after our meeting and these tapes have been incorporated.

SECTION 4: SPOKEN UTTERANCE AS WRITTEN SENTENCE - THE ISSUE OF TRANSCRIPTION

Although theorists such as Bakhtin (1986, p60) and Young (1992, pix) deliberately link oral and written language realization when they refer to 'utterances', Brown and Yule, (1983, p19) found a convenient distinction in 'sentence' and 'utterance', with the former written and the latter spoken, concluding that "spoken and written language make somewhat different demands on language-producers" (p4). I have followed Brown and Yule's categorisation as a useful semantic distinction. In this study the spoken utterance of the teletutorials and the interviews has been retained to the greatest extent possible but, of necessity, for both the research and the dissertation it has, in part, become written sentence. As Game (1989, p346) found, to transform an interview (and the same would hold true for a telcutorial) to a transcript cannot be an 'accurate representation' of that experience: speech cannot be regarded as a simple reflection of
the experience: the transcript is a written record of researcher/researched speech; different theoretical concerns produce different readings. Although most of the data did not have the complexity of nonverbal signifiers as the experience occurred in an audio environment, concern with the transformative nature of transcription had significant consequences for the methods of this study.

While audio-tape-recorded interviews and sessions offered the compelling advantage of a far more complete record than would have been possible by note-making, there is a seductive ease of amassing huge quantities of data that are hugely time consuming and difficult to access. Given the concern with spoken language, managing the data by transcribing it (codifying it was never contemplated for reasons discussed above) was strongly resisted. Reworking the discourse into written text seemed antithetical to the tenets of the study and to subsequently rely on a simple transcription of content was considered a doomed venture because of its reductionist approach to the richness of spoken language. Not only are there such issues as misinterpretation and even possible distortion (see, for example, Cannell et al, 1975; Gorden, 1975 and Mishler, 1986) but also there is potentially a loss of complexity as tone of voice, timing and so on are sublimated as the nonverbal aspects of oral communication are inadequately conveyed, or even disregarded. As Douglas (1985, p83) claimed, transcription "does not get exactly what is said in exactly the tones, with exactly the pauses and inflections and all the other aspects of communication that affect the meanings intended and received".

Despite these reservations, after several months of listening and re-listening to over a hundred hours of taped interviews and teletutorials, it became obvious that, once the decision of which sessions had been made (that is, once the two major case studies had been selected), it was imperative to have a written text as an aid to the management of the data.

The first transcripts were of those interviews that related to the case studies selected. Although their main purpose was to inform the central discourse of the teaching and learning sessions and so their content was of greatest significance, this did not mean a lack of concern with or interest in how that content was expressed. Hence the transcripts were developed to link two constituent elements: what was said and the way in which it was said. There was an effort to reproduce these in written text as precisely as possible, without editing and retaining the frequent awkwardness of spontaneous speech. However, as Lemke (1990, p230) wrote:

People do not really talk in sentences or use commas, but it is very hard to read a transcription that does not compromise a little with these conventions in writing.
Gorden (1975, p273) contended that tape recorders were not used more extensively because of the high costs of transcription due to the many hours expended to transcribe each hour of tape. Although McCracken (1988, pp41-42) admonished researchers to use professional typists on the basis that investigators who transcribed their own interviews invited "not only frustration but also a familiarity with the data that does not serve the later process of analysis", I concur with writers such as Lemke (1990, p232) and Tracy (1991) that it is undesirable to give this labour to others as it is "a valuable first part of acquainting a researcher with his or her data" (Tracy, 1991, p182). Because of the compulsion to remain close to the data and transcribe all the material myself, time constraints exerted their own imperative in terms of how the material would be transcribed. Although the style of transcription of Paget's work (1983a&b) was very appealing for she assembled a 'display of speech' aimed to preserve the dynamic construction of talk, with even nuances of the phonology, it was recognised that it would be an herculean task to transcribe scores of hours of discourse in this way. More important, in the final analysis, despite Paget's belief that her approach would retain the signatures of the presence of the participants, the inflection and rhythms of the voices, the experience that was intended to be shared between researcher and reader was still compromised. Not only is it conditional on one's ability to reproduce the spoken utterance as written text, but, as Ihde (1979) and others have recognised, there is an inevitable transformative effect due to the technological shift.

Several discourse theorists (for example, Craig and Tracy, 1983; Potter and Wetherell, 1987) have recognised that there is no absolute in terms of the right level at which to transcribe. Having decided to resist editing and include repetition, nonfluencies and partial formulations, and to indicate significant pauses, but to disregard particulars such as pronunciation peculiarities, vocal tones and inflections, I was encouraged to see this was close to the approach taken by Tracy and Baratz (1993, p304) in their analysis of intellectual discussion. I, too, had traded some specificity for a larger amount of text so that I had complete transcripts for all the interviews, for each of the three New Zealand teletutorials that incorporated the session as heard at the central location where the tutors were situated and for nine of the nineteen Deakin sessions with partial transcripts of the rest. I was aware, however, that the loss of specificity meant that the less the transcription showed, the less was there to see and think about. However, the greater the specificity, the greater the deflection of engagement with the actual words of the text and the more attention required to handle classificatory codes. Hence, although a decision had been made for practical reasons that would provide a transcription that paid some attention to the 'how' as well as the 'what' of the utterance, there was a tension
between function and a desired outcome that sought to approximate completeness to the greatest extent possible.

At the same time as decisions about transcription were being made, it became possible through a development with technologies to retain the spoken form of those utterances selected for inclusion in this dissertation. Hence, although I admired Paget's effort to retain the complexity, openness and the richness of the talk she reported, I felt I could take a further step in allowing "readers to enter the circle of talk" (1983a, p87). One of Paget's concerns was to have her readers examine her interpretation rather than rely on it. She sought possibilities of "intersubjective knowledge" (1983a, p87). It is my intention by retaining the voices of those who have participated in this study to allow those who read the dissertation to enter into that experience in what I believe is a new way. No longer, for me, is there a tension between function and outcome. Although there has been selection in which of the spoken texts will be incorporated, and even of how they will be presented to the reader in terms of the technologies used, adding CD-ROM technology to that of print allows the reader to hear the words as well as see them. While the spoken utterance has been transformed into written sentence, in perceived critical areas the spoken voice has been retained. This gives the reader (as the researcher has already experienced) multiple opportunities of engaging with the discourse: as seen, as heard, as heard and seen. However, as with all technology, there is a transformative element present here, as well, that makes it impossible to replicate precisely what was said and heard by the original participants in the teletutorial or interview. Their discourse (in most instances) has been mediated by the technologies of the telephone, the tape-recorder and the computer (both hardware and software*) and CD-ROM. Despite this qualification, I believe CD-ROM opens exciting opportunities for those whose interest is with language as it brings us even closer to offering a 'complete' discourse, allowing integration with written text in a way that an audio-tape cannot accomplish.

Grimshaw (1989, p83) wrote that he had spent several thousand hours working on about ten minutes of the dissertation defence that formed the data for his research. From that he had produced an analysis he described as 'dense', 'informative', but one he considered could not be termed 'comprehensive'. In terms of this analysis, where reduced time spent in analysis is set alongside increased time of data to be analysed, as

* The computer used in the preparation of this dissertation is a Macintosh IIvx and the software for incorporating spoken data is "SoundEdit Pro" (1993 version) released by MacroMind.
well as significantly reduced time to explore the texts, it would be rash to claim that this can approach an exhaustive study even of the four excerpts selected for more rigorous scrutiny. What has been attempted is to analyse selected episodes and interpret them in such a way that the themes that emerged from the data are explored to an extent that is satisfactory for both the researcher/analyst and the reader. By engaging the reader as fully as possible with the audio-text so that, as well as seeing the words on paper the reader can hear the words as spoken, it is hoped that there will be a fuller appreciation of the teletutorial situation and the interpretation that is offered.

While I believe the analysis does permit some conclusions about telephone mediated academic discourse, not only are these conclusions limited because of the very restricted nature of the data analysed, but there is the critical reservation that there is no principled basis in the data for adjudicating between alternative interpretations. Any researcher brings to the task a different and personal set of constructs that will influence how the data are gathered as well as how they are analysed and interpreted. Grimshaw (1989, p84) pointed to different analysts reaching different conclusions from the same data. While I am unable to verify that conclusion as regards this study, in common with Grimshaw, the analysis of the case studies (see Chapters 6 and 7) evidenced that participants made interpretations of what is occurring that differ not only from the analyst’s but also from those of their cointeractants. Further, and very significantly, as discussed earlier (see Chapter 2: section 4) the experience for the participant and that of the analyst is demonstrably different when recording technologies are employed.
PART III:

THE CASE STUDIES
Chapter 5
TOWARDS A TELEPEDAGOGY: A CONCEPTUALISATION OF TEACHING AND LEARNING BY TELEPHONE

... the fact that curriculum is necessarily mediated means that teaching and learning are never the naked contact of minds and ideas, the ideal 'teacher-proof' curriculum. The curriculum is always mediated. The media are not simply contextual but a necessary part of the content. (Walker, 1993, p24)

As discussed above (see Chapter 2; section 2) the prefix 'tele' (from the Greek, meaning 'from a distance'), when coupled with words such as 'conferencing' and 'pedagogy', is used in a generic sense. The qualification in the chapter title of the somewhat ambitious use of the word 'telepedagogy' needs to be stressed. Not only is this discussion limited to one educational technology (the telephone), but there is a recognition that this is but a step towards an understanding of what I have chosen to term 'telepedagogy'. The notion of 'pedagogy' is engaged with as a prelude to the discussion and, because this interpretation is, to a large extent, premised on interaction, that term has also received special attention.

This chapter offers a conceptual context in which to place the empirical data from the case studies that form the following two chapters: 6 and 7. It has been structured in a schematised way, in both the refinement and reification of models, as well as the couching of the discussion within two binaries: Presence and Absence; Voice and Print. Because of the interrelatedness of the issues that appear, even this somewhat arbitrary division is impossible to sustain completely. Further, the headings should be interpreted as topic indicators, rather than finite categories.

INTRODUCTION

The normative paradigm of teaching and learning incorporates the face-to-face encounter. While there is a recognised tendency to reproduce the known patterns of
interaction that have been sustained by this prevailing culture of educational practice, many more channels of teaching and learning are opening and the enabling force is technology. Increasingly what was face-to-face is faceless-to-faceless. While the first move in this direction came with print-based correspondence pedagogy, there are now many options including the telephone, audio- and video-tape and interactive videodisc, broadcast radio and television, computer mediated communication and multi-media. The intention of this section is to appreciate the complexity of three modes of academic discourse - self-contained print, the tutorial and the teletutorial (considered here as idealtypical categories) - and deal with that complexity in a manageable way. The approach has been to fix something that is inherently mobile/fluid so that the elements of congruence and divergence may emerge:

... once we accept all behavior as communication, we will not be dealing with a monophonic message unit, but rather with a fluid and multifaceted compound of many behavioral modes - verbal, tonal, postural, contextual, etc. - all of which qualify the meaning of all the others. The various elements of this compound (considered as a whole) are capable of highly varied and complex permutations, ranging from the congruent to the incongruent and paradoxical. (Watzlawick et al, 1967, p30)

To illustrate by an analogy: as a slide prepared for examination under a microscope is a sliver and a cross-section, which fixes a section from the whole for that time and space so that it may be more rigorously examined, similarly this discussion is premised on a thin cross-section where (ideally) all elements of the whole section exist but are frozen. As with the microscope, it is possible to change the focus and levels of magnification. The 'cross-section' that has been taken from the 'whole' of tertiary teaching and learning is:

- **A non-enhanced print package of study materials**

Although much distance education study material incorporates audio and video tape-recordings etc, here the discussion is limited to a print package, which will include words and illustrative material such as photographs, diagrams and graphs. Although there would be an expectation of further contact and communication, in this model of distance education that is conventionally categorised as external studies*, and which may well include audioteleconferencing and even face-to-face contact at residential schools, the discussion has been

* 'External studies' has been used in preference to 'correspondence education' as this latter term, in Australia, is commonly restricted to school - as distinct from tertiary - level. In this nomenclature, Australia follows British, rather than American, traditions (Northcott, 1984, pp39-40).
restricted, essentially, to that part of the educative experience that concerns individual interaction with the printed text.

* A tutorial
Here the interaction is predominantly by voice in the physical presence of others. Most face-to-face encounters use technologies to provide acoustic and visual enhancement and these can vary from the simple (such as a microphone or even a whiteboard and pen) to the sophisticated (such as multi-media). Because of this wide variation and attendant complexities, in the case of the tutorial it is assumed that no such technologies are employed. With this qualification, it is still necessary to note that much face-to-face discussion is premised on what has been read, so (as with the teletutorial) there is no arbitrary denial of the print technology as a pre-condition.

* A teletutorial
Here the interaction is predominantly by voice in the physical absence of others. The teletutorial model discussed here is that of one tutor and a small group of students (approximately ten) who are connected at individual locations. Although the discussion focuses on audioteleconferencing, such sessions are assumed to supplement the print package of study materials.

For the purposes of this discussion, it is assumed that neither the tutorial nor the teletutorial is taped.

While appreciating that there will be different pedagogical implications where there is partial reliance - as compared with total reliance - on any one approach, here the focus is on each of three experiences; their contours and textures. As the three modes of academic discourse are explored, it is intended that a sense of what I have termed 'telepedagogy' will emerge. However, as with a written description of the slide under the microscope, this commentary cannot replicate the original with all its richness and detail. It is limited, also, by the quality of the materials (in this instance, what has been researched as well as what has been read to inform the study) and by the ability and perceptions of the writer. Although informed by scholarship, this is an individual interpretation and makes no pretension to be absolute.

* * * * *

* In this discussion 'tutorial' has been used as the generic; 'teletutorial' as the variant. Hence, unless stated otherwise, where 'tutorial' has been used it conflates both the face-to-face and the tele-tutorial.
In external studies, the predominant technology is that of print. In the teletutorial, although the print material will still have relevance to the shaping of the experience, at the time of the teletutorial the predominant technology is the telephone. In each instance where the teaching and learning are mediated by technologies that mediation is arguably of a different nature. Print technology is often taken for granted, effaced, and can be seen as complete in itself. The technology of the telephone is more visible and apparent. However, as it is so commonly used as to be a familiar part of everyone’s experience in the cultural context in which this study is placed, there is an attendant consequence that it, too, may be effaced as it is subsumed as part of a taken for granted reality.

Technology is commonly considered to be most effective when that technology is ‘transparent’ to the user. The better it functions the less our awareness of it. When it does not obtrude into our experience, we do not think about possible influences on our behaviour and social transactions. It becomes one of the myriad background details of which we are not consciously aware. However, as I have written elsewhere:

To disregard the mediation of the technology is an exercise in reductionism. Failure to reflect on the implications of teaching and learning when the telephone is the medium of communication is failure to consider the experience holistically and, consequently, the interface of technology and pedagogy that is the teletutorial is unrecognized as having some significant differences in form and function to the conventional tutorial. (Thompson, 1993, p890).

A DISCUSSION OF TWO KEY TERMS

Pedagogy

If, as Lusted (1986) asserted, ‘pedagogy’ is a term that is "so incoherent and unacknowledged" (p2), so "desperately under-theorised", and to explore it "is to open up for questioning areas of enquiry generally repressed by conventional assumptions"(p3), in a study set within a hermeneutic paradigm it is imperative that the prefix ‘tele’ is not appended to a term where the interpretation is taken for granted.

‘Pedagogy’ is traditionally dictionary-defined with emphasis on words such as ‘teaching’ and ‘instruction’. As Lusted (1986, p2) pointed out, "even among elite realms of thought, pedagogy is taken as coterminal with teaching", with the word closely aligned for most with mental images of a 'pedagogue', "connoting pedantry and dogmatism". In such interpretations, power and authority are vested in the teacher in a
fixed unilinear transmission model. Learners, the other half of this equation*, are ignored and disregarded, or else seen as passive receivers.

In this study, 'teaching' and 'learning' are seen as concomitants. With its consistent emphasis on the importance of interactivity and the dialogue of students with peers as well as mentors, this notion of pedagogy sees it as fluid and multilinear. What is known is not inevitably and inexorably the province of the teacher, although it is reasonable to expect that the teacher will have a distinctive and consistent contribution to make in this regard. I support entirely the sentiments of Lusted's (1986, p4) comment: "Knowledge is not the matter that is offered so much as the matter that is understood". Knowledge exists in the sense of being aware of and informed about, but, until that knowledge becomes part of the fabric of a personal understanding, before it is taken, reshaped and given individual contours as it becomes one with an individual's intellect and experience - until it is made one's own - it is incomplete. Hence, to theorise pedagogy as an imparting of knowledge from teacher to learner, without appreciation of the transformative nature of that experience, is a limited rendition. Rather, pedagogy is premised on developing understanding. To see pedagogy as unilinear is a denial of its force and its reciprocity. As Jaspers (1991, p21) wrote: "the student is not just at the end of a chain but also at its beginning".

Interaction

Although Bretz and Schmidbauer (1983, p9) in their text, Media for Interactive Communication, recognised that most communication among people is interactive, they contended (p13) that there must be three actions to characterise interactivity:

1. a statement, question, request, or other message from communicant A to communicant B,
2. a response from B to A based on what A has just said, and
3. a response or reaction from A to B based on B's response, ...

Interactive communication is [defined as] the situation in which each of two (or more) communicants responds to the other. (My emphasis)

In this definition, where Bretz and Schmidbauer use the word 'said' (in contrast to their use of the words 'message', 'response' and 'reaction'), there seems an assumption that the response is spoken. This would be in accord with those who believe that only certain types of oral discourse are interactive. For instance:

* In writing of learners as the "other half of this equation" I do not wish to imply that teachers and learners meet as equals as far as such aspects as equality of power and intellectual development and expertise are concerned. Where they meet as equals, and so the use of the word 'half', I believe, is justified, is in their participation in the process, itself.
... the term 'interaction' is used to describe a direct communicative exchange (the direct communicative exchange being a particular type of oral communication) (Gremmo, Holec and Riley, 1978: in Holec, 1985, p21).

I have chosen not to limit the concept of interaction in such ways. I do not consider that speech is an inevitable condition of interaction. One can interact with the other by gesture, facial expression and so on, as well as by writing. It is possible to interact with an implied other.

Distance educators typically distinguish between different forms of interaction. Bates (1990a, p5), for instance, found it helpful to differentiate between "two rather different contexts for interaction": the "individual, isolated activity" ("that is the interaction between a learner and the learning material") and the "social activity" ("that is the interaction between two or more people about the learning material"). In the former case, Lewis (1975, p69) believed that "as we mull things over quietly and in solitude, we are actually holding a conversation with ourselves". Daniel and Marquis (1979, p30) similarly commented on internalised conversations:

... conversations are often internalized as when a solitary and silent student mulls over the 'knowables' in a text he [sic] is reading. Clearly in this sense all learning involves interaction.

For Julier (1990, p28), the interactions students have with texts are "just as important" as their interactions with people.

The tripartite model that Bretz and Schmidbauer (1983) proposed (see above) appears to assume a reciprocity that would seem to deny the type of interaction that is customarily associated with readers of print material. This is because Bretz and Schmidbauer have restricted their notion of interaction to the "communicants", yet, in normal circumstances, the reader interacts with the text, not the writer. Although I find it helpful to consider that, in the moment and act of communication, the existence of the text in the mind of the reader takes on the shape that mind gives it, and hence have sympathy with dialogical theories that locate meaning between writers and readers (see, for example, Nystrand and Wiemelt, 1991), in more conventional interpretations neither the text nor the writer is literally acted upon by the reader. However, this does not negate the connection of the mind of the writer with the mind of the reader, and the action of the former on the latter: the interaction.

Scholars such as Bakhtin, Leont'ev and Vygotsky have conceptualised the relationship between external and internal activity, recognising their integral relationship. Vygotsky, for instance, argued that the relationship is a genetic or developmental one in which the
major issue is how external processes are transformed (as distinct from transferred) to create internal processes (Wertsch, 1985, p163). While Marland and Store (1982, p72) categorised interaction with print text (as distinct from interaction with people) as an "indirect method of interacting", I am not confident that this is a helpful distinction. Rather, I would put the emphasis on revealed and unrevealed. Hence, I believe it is possible to differentiate between covert interaction, where the response of the reader remains internal, implicit and tacit and overt interaction where the response is external, explicit and articulated. This means that in the conventional expression of external studies, with the student interacting with the print materials in silence and isolation, the response remains covert unless the student chooses either to verbalise it by comment to another (but, not necessarily, at that time) - or even speaks aloud to him/herself - or articulates the response in writing (perhaps as part of a submitted assignment). In the tutorial situation it is far more likely that students will experience both forms of interaction at the time of the session, itself, as well as at possible other times. Although, in the case of the tutorial - and, especially, the teletutorial, with its absence of visual cues - there is a tendency to judge spoken contributions as sole indicators of the extent of the interaction, it should be stressed that what is being considered is the extent of the spoken interaction. The degree of the success of the session in stimulating thought (which, at best, will be but partially and incompletely revealed in this forum) is far more problematic to determine but, I believe, of no less consequence. Hence, to conclude, as, for instance, has Garrison (1982), that it is possible to determine levels of high and low interaction based solely on the chosen technology, itself, seems an unhelpful oversimplification of the concept of interaction.

A liberal conceptualisation of interaction as the one I have proposed could justifiably be construed as an inevitable consequence of any encounter. However, is interaction in the context of teaching and learning axiomatic? What if the student remains silent in the tutorial? What if the written text is summarily closed? It would be an idealised and false motif to assume both a willingness and a preparedness on the part of all who contribute to an interactional event.

Concerned to reveal the difference between monologue and dialogue, Holec (1985, p26f) claimed it is possible to discern "non-interactive discourse". He contended (p30) that "the essential difference between interactive and non-interactive" is whether or not the discourse "is the joint product of a number of different participants". While, on this basis, an exchange of letters on a shared subject illustrates that written discourse can be interactive, the lecture, as monologue, illustrates that spoken discourse can be non-interactive. Holec rejects, therefore, that audience and speaker communication by gaze
direction, facial expression and so on, when the discourse is a monologue, is interactive. I appreciate the distinction Holec is striving to articulate, but to deny the existence of interaction, as Holec has done, seems reductionist. And even if one accepts that one does not interact by gesture, gaze etc (and, as discussed above, this is not my view), and restricts the case to the monologue, the shape of the utterance can be affected by the way in which the audience is seen to be reacting and, in this sense, satisfies Holec's criterion of the discourse as a "joint product". For Jaspers (1991, p22), "We must conclude that the point is not: interaction yes or no. The point is: more or less".

My approach to dealing with what Jaspers (1991, p22) terms the "gradients" of interaction is to use the terms 'meaningful' and 'non-meaningful' interaction as a way of suggesting qualitative difference. As Nystrand and Wiemelt (1991, p31) remind us in the context of the written text: "if readers are to understand a text, their respective purposes, situations, and cultures must not be excluded by either the writer's purpose or the situation or the cultural context occasioning the text" (italics in original). The same comment could be made in regard to spoken interaction. Hence the provision of opportunities for interaction for distance students on the part of institutional providers is but one element. While a yawn, a groan, a shutting of the book may be the way in which the response is expressed, if - in the final analysis - the text is left unread, the issues passed over, if the student is resistant (for whatever reason) and/or the teacher has been unable to include the reader in his/her purpose for writing, then the intent of the interaction has been lost: it has lost its 'meaning'. Similarly, in the case of the tutorial, the interaction will be effective in a pedagogical sense only when both parties have some shared purpose at least for some period of the time spent together and have the necessary skills to construct some kind of ideological bridge. In this way the pedagogical intention of the interaction - the transformatory experience of producing knowledge - is realised. For Lusted (1986, p4):

Knowledge is not produced in the intentions of those who believe they hold it, whether in the pen or in the voice. It is produced in the process of interaction, between writer and reader at the moment of reading, and between teacher and learner at the moment of classroom engagement.

I concur that the production of knowledge (as distinct from knowledge, itself) demands some form of interaction, but would take and reshape Lusted's argument a little further. As the discussion that follows will attempt to reveal, the experience of teaching and learning in a framework of literacy has distinctive contours from that where the framework is orality. Further, while knowledge in the sense of information gained is
likely to be an immediate consequence of the process of interacting with print text or other voices, the transformation of that information to understanding may occur in different settings and at vastly different times when, for some reason or another, a stimulus leads to reflection and what had been preserved in the memory as information is reconstituted as understanding. Moreover, I would not wish to limit the production of knowledge to interaction "between teacher and learner", for this denies what I believe is the significant role of peer interaction.

**PRESENCE AND ABSENCE**

There is no social system which does not mingle presence and absence in respect of interaction ... Interaction in contexts of co-presence, as face-to-face interaction, has definite properties which distinguish it from interaction with absent others. (Giddens, 1987: 1990, p146)

* * * * *

Where the learning of the student is situated outside the physical presence of the academy there is an absence of more than an 'instructional site' (aiming to promote and further student learning) but also a 'cultural site' ("wherein the ongoing work of social management and cultural transmission is conducted") (Bigum and Green, 1993, p10). Bigum and Green write (p14) of a "decoupling of the classroom and curriculum" by "information and image mediated via the new information and communication technologies". In the case of distance education there is, as they discern, a "complex play of presence and absence" (p11).

The "complex play of presence and absence" is readily demonstrated when the relatively simple issue of the technology as artefact is unpacked. It seems obvious that, in the case of print-based study, the technology that produced the text is absent from the student, while, in the case of the teletutorial, the technology that produces the tutorial - the telephone - is present. Any distance education student could form a mental picture of a computer and even a printing-press, but there is unlikely to be a sense of an actual and physical presence. Moreover, their location is essentially irrelevant. While the type of technology used to produce the material may have significant impact on design and delivery (material produced for 'desk-top' publishing is often quite differently developed and prepared than that produced for type-set traditional publication), this is an 'invisible' technology for the student. In contrast, where the context is the teletutorial, there is not only an image of a telephone but there is the physical presence of a particular instrument: its colour; whether it is a wall-phone or hands-free phone, for instance; the
case with which it can be placed on a table and so on. As well, and especially where the telephone is located in the home, there is usually a sense of personal choice as well as ownership. However, the telephones that other participants will use are as unknown and, probably, as irrelevant to the perceptions of the other participants, as is the printing-press, for instance. Moreover, the technology that supports the experience - most particularly the 'bridge' - is not part of the students' sense of the technology unless, and until, it fails. In this sense, it is its absence that can, somewhat paradoxically, trigger a sense of presence. However, for the vast majority of students and most tutors, it is most unlikely that they will have any concept of its physical form.

**Spatial and temporal considerations**

"Distance education, particularly through its curricula, is part of a range of social processes which reproduce and transform places and distances in society" (Evans, 1989, p177). Evans (p178) cites Giddens (1984, p118) who pointed out that to consider 'place' "simply to designate 'point in space'" and 'time' simply "as a succession of 'nows'" fails to recognise "the mutuality of presence and absence in time and space". Evans illustrates this notion by considering students at some Australian mixed-mode institutions (such as Deakin University) who live in close physical proximity to a campus and are 'present' in the sense that on-campus students are - if, and when, they choose to attend the campus - but who, because of the nature of their enrolment as 'distance' students, are treated by the institutions as 'absent' in terms of the mailing of materials etc. Conversely, some physically remote external students are 'present' in place and time when they choose to reconstitute the physical separation, by, for instance, travelling to a study centre. With multi-campus and teleconferencing connections (audio, video and computer), conventional spatial boundaries are increasingly collapsed.

Print material can be sent to a student at any location and, to this extent, the external student is potentially one of a group of students in a global environment who shares the same experience in terms of course materials and assessable tasks, but where there is no expectation they will engage with it at the same time. Custom and convention typify the external student who interacts substantively with the print materials as isolated. While that isolation is rarely expressed as crudely as the remote cabin or hut miles from the nearest civilisation (Bates, 1990a, p5), the student is still likely to be isolated from interpersonal interaction as part of the teaching/learning experience. The other participants in the course (irrespective of their location) are absent: their identities and personalities unrevealed; their potential contribution to the experience unrealised.
In the case of the teletutorial, students are connected with other physically absent students locally, nationally and internationally. They are present, however, in the sense that each shares the experience and can contribute to it. In this regard the teletutorial offers students the potential to engage with a wide range of participants, while the face-to-face tutorial is limited to those students within geographical proximity of the campus. Where there is a perceived need to connect students from different time zones, the most 'absent' student - in the sense of the furthest physically removed from the centre of organisation - may have the greatest influence as his/her needs are accommodated by scheduling the session for that window of time where it is reasonable to assume that the participant in the most distant time zone will be awake. However, even if the telephone "permits genuine embodiment of a real space-time dialogue, it does not do so without transforming that dialogue" (Ihde, 1982, p64). As Ihde explained (pp64-65):

The space-time of a telephone conversation has a certain unreal character to it... For example, the space-time of such a conversation is always that of a near-distance. This distance is neither geographical, in the sense of having a clear perception of far and near, nor the distance of normal lifespaces as in dialogue space. It is rather the mediated space-time in which all distances are made quasi-near (I can hear you just about as well from the next town as from California or even Europe - if the technology is good), but equivalently you are never perceptually fully present and thus you remain simultaneously irrationally distant. In short, the medium transforms the other and the situation in which the other is made present. This transformation is non-neutral.

While, therefore, there is recognition of the complex play of presence and absence in both spatial and temporal relations, in the situation considered here - the 'cross-section' - it is assumed that the setting in which the interaction occurs for both print-based and audioteleconference external study is inevitably spatially (but not necessarily temporally) apart from the university. Giddens (1987: 1990, p146), whose concept of 'setting' presumed time-space relations, recognised that the setting for the interaction is "not just a passive backdrop".

The setting for the interaction of those students who are absent from the university is typically the home*. In speculating on the home environment for learning in the 1980s and 1990s, Richardson (1980, p19) considered it "arguable that a high percentage of homes ... are now at least as well equipped in terms of audio-visual hardware, paperback and daily press 'software' and access to off-air national transmission, as

* Most Deakin University teletutorial students (62% overall, but 85% when the Master of Business Administration, Faculty of Commerce, is excluded) chose to take the teletutorials in their homes. 25% of the MBA students took the calls at their place of employment, with a further 17% using both home and business numbers. (See Thompson, 1990, p227)
were the great majority of school classrooms and indeed university lecture theatres as little as fifteen years ago". In this context the home can be seen as a most desirable location and, in taking the university to students' homes, there seems to be an assumption on the part of the providers that the home is invariably a fitting place. However, as Walker (1993, pp22, 25) claimed:

One aspect of distance education neglected in the haste to establish programmes is the need to think about what is involved in changing the location of study from school to home. ... The shift from school to home as the locus for the delivery of education appears at first sight to be a relatively simple change of location, but it is much more complex, not least because it causes us to rethink what we take for granted about education in institutional settings.

Rothe (1985, p202) concluded that the learners' home environments could be 'paramount' contributors to students' involvement in interactions. In common with the communications consultants, McFarland and Nissen (1982), Rothe contended that the importance of the room is the least understood component - "consistently the missing element" - but that element is critical to successful teleconferencing and is frequently problematic.

The home is generally adequately equipped for learning as far as accoutrements (such as table and a telephone) are concerned. As a known space to the student, there is no sense of being placed in an alien environment that can, especially at first, because of such factors as size and architecture as well as the cultural expectations embedded in the concept 'university', seem threatening. However, being present at the university offers a protected space. In the face-to-face tutorial, only an emergency would remove the student from a chosen session, but students working in a family context in a home situation are very likely to face disruption. In this regard, the situation for the student interacting with print and the student interacting with people in the teletutorial differs. Printed material is relatively easy to transfer to any chosen location and the student has considerable flexibility in, and control of, time organisation. Dealing with a domestic crisis, for instance, can be disruptive but the printed text is still there for the student to return to, and the student is free to move to a quieter part of the house. For most teletutorial students the telephone is normally fixed and its siting can be problematic as it is often located in the hub of the household for family convenience. Moreover, one student being forced to deal with a domestic situation is likely to be disruptive for all participants in the teletutorial; if the student is distracted or forced to abandon the call, for that student the experience is compromised and may even be lost. A home caters essentially for the domestic needs of the family and typically teletutorial calls impinge on the activities of all in the household: televisions are turned down or off, partners take
over domestic chores, meals are re-scheduled, children and dogs are relegated to other parts of the house or sent away for the period - and so the list continues. Students who reported on the home environment consistently indicated the pressure and tensions that resulted, leading me to conclude:

Tutors need to be aware, and show their students they are aware, of the constraints under which they study and students should be encouraged not to feel guilty if the place where they take their calls does not replicate an on-campus seminar room. (Thompson, 1990, p228).

For students who live by themselves and/or have a regulated domestic environment, working alone in a quiet home can be a virtual assurance that they will not be distracted. For such students the image of distance learning as an intensely personal experience, with study in a set location and with self-imposed routines, has validity. But for others, and probably the majority, the situation is very different. For many students the reality of off-campus education is that it is not a personal and private experience, a withdrawal from their domestic and business worlds, but an activity that is fitted in and among other people, other situations and other demands. Hence, the student who receives the course materials may work with them in very different environments (some by choice, some imposed), in very different ways. Students are rarely in a position to make unilateral decisions about their studies. The number of times that reference was made to the need to change sporting fixtures and business meetings, social engagements - even to the re-arrangement of church services and a mayoral banquet - clearly illustrates the diverse impact the decision to hold a teletutorial may have on the student's community. Further, some courses reflect an approach to distance learning that is the antithesis of an expectation of the solitary, isolated and 'closed' experience. For courses that are activity-based and socially interactive, courses that build on conceptions of knowledge as communal (see, for instance, Walker, 1993), the more commonly held view of home study is challenged. How the individual learning environment will affect response to the learning, itself, is essentially unknown and, for many educators, of little interest. Yet the influence of the learning environment on pedagogy and of pedagogy on the learning environment is likely to be considerable.

While achieving a suitable environment in the home is often as elusive as it is desired, in the face-to-face tutorial students are placed in a known environment specifically designed to facilitate education. A marginal activity in most domestic environments, education is a central function of the university. Although the institution - rather than the tutor - has the controlling voice, in contrast to the teletutor, face-to-face tutors know the environment in which the seminar will occur and can adapt their pedagogy in
response to this; there are some opportunities to nominate the style of room they desire and they can usually modify it, albeit with some effort and possible time loss. While there may be space and furniture constraints, the ability to vary seat and table positioning opens opportunities to manipulate the discourse patterns through grouping and seating. In face-to-face sessions, the positioning of people can be critical to the dynamic of the exchanges. Hall (1969) and Mehrabian (1971) found that the space and setting influenced the communication: the closer the people and the fewer the barriers, the more positive the contact and the more that was communicated.

While the teletutor does not have such opportunities to influence pedagogy, it should not be assumed that shared spatial elements are always productive to the discourse. Factors such as proximal distance, which can inhibit or even embarrass, are irrelevant to the teletutorial. Teletutorial students do not have the constant visual reminders that can reinforce hierarchy and dominance. They have greater control over manipulating their environment: in hot and crowded rooms people feel more negative in general, and towards one another in particular, than in comfortable temperatures with fewer people (Mehrabian, 1971, p76). There are further constraints for the face-to-face session is place dependent and imposes commitments in terms of time and costs to travel to the location. Its participants are restricted to those who can physically attend and so (as distinct from the teletutorial) the contribution of remote students who may have particular needs as well as particular views to express is lost. Moreover, some students find it less threatening to study away from the campus. Older students and/or those with physical disabilities tend to welcome the sheltered learning environment of the teletutorial.

As with the face-to-face tutorial, the teletutorial is fixed in time: it is synchronous. Print-based distance education is asynchronous and allows students freedom of time (as well as place). It lets them pace their learning and schedule their study programs to fit in with other demands (Cosgrove, 1982, p21). As Daniel and Marquis pointed out (1979, p41):

... the adult student is busy and pragmatic. His [sic] involvement with the remote-learning system is only a minor aspect of his life. Learning activities must be organized to provide maximum advantage for minimum inconvenience (1983, p355).

If educators are unable to deliver "maximum advantage for minimum inconvenience" it is highly unlikely that students will persevere with such activities as teletutorials.
In response to such concerns, organisers of teletutorials have striven to consult with students, rather than impose.

Ideally, students contribute to and negotiate the agenda for discussion; they have input into the "how" as well as the "what". They will have been consulted about the "when" and the "where" is at their discretion. In this reciprocal relationship neither the teacher nor the learner is a passive recipient and its value for adult education is readily apparent. (Thompson, 1991, np)

Although students are approached to nominate times that suit their circumstances from a reasonable range and they are able to change their call number until immediately prior to commencement, arguably there is still a far greater time constraint than with print-based teaching and learning, although probably less than with face-to-face where there is more limited negotiation of time. Moreover, it has been contended that off-campus students have selected that style of study precisely to escape such constraints: "Since distance education allows the student freedom of place and time, any interaction which limits this freedom negates the fundamental reasons for the student's choice of the distance mode" (Winders, 1988, p5). Teletutorials prescribe fixed times for the tutorial itself but also, to be effective, demand that students are at similar stages in their course and are prepared for the discussion that is planned. As Daniel and Marquis recognised (1979, p34), "Group interactions are usually impossible without pacing, simply because they are based on bringing together students who are at the same point in a course". More recently, Laurillard (1993, p165) made the point even more forcibly, contending that audioconferencing "must ... rely on prior shared experience" for the communication to work.

While the off-campus student who is working with printed materials has usually the assignment tasks as the main pacing mechanism, students who participate in teletutorials tend to find that the fixed nature of the sessions assists organisation. However, when the content is taken from later weeks in a course, structure and organisation are adversely affected (Grace and Thompson, 1989, p33). It is important to recognise that, even when that teaching seems a distinct and separate embodiment, it is the written curriculum that frames the teaching, and, as discussed below, that is likely to be highly controlled and teacher-directed. Hence the teletutor is constrained to follow the printed course and deviation from this is highly problematic for students. Teletutorials do not take place in a time vacuum. Ideally, teletutorials are integrated with the printed course materials, but, if there are time delays in their receipt by students, this administrative factor will not only dominate the teletutorial but will also affect how students perceive the value of the session. For reasons such as these, the teletutorial reinforces the normative lock-step, linear and sequential model, locating it within the Fordist model of
uniform mass production, rather than within a pedagogy that privileges individuality with its attendant choices and freedoms.

Partly because of the relative infrequency and sense of limited time being available for tutorial encounters, students often have a heightened expectation of what can, and should, be achieved. In the case of the teletutorial the situation is aggravated for it is probable that the twice-weekly face-to-face contact of the tutorial will be reduced to monthly, or even quarterly, intervals. It is of considerable importance to these students that the material covered is relevant not only to their stage of study but also to set assessment tasks. In terms of the usefulness of such information and hence student attitude, the timing of information and advice regarding assignments is critical. If covered too early, it is unlikely that students will have the necessary knowledge to contribute meaningfully to the discussion and to recognise problem areas. If covered too late, students may have expended effort unproductively or be too far along to amend and modify, and so they reject the points being raised and/or become frustrated at their inability to incorporate new insights. Tutors who give valuable information to students that could have been applicable to an assignment due the previous week, earn the outrage of students who have submitted their assignment on time, for they believe they have been penalised for meeting the imposed deadlines and less well organised students will now be advantaged.

The time actually spent on any aspect of external studies is the decision of the individual student but the print package, by the quantity and the quality of its material, indicates academic and institutional expectations of what is reasonable for a semester's work, with some courses, either by their design or statement, providing finer time cues. If the time expectation is incorrect for an individual student, there is no compulsion embedded within the study materials that arbitrarily detaches the reader from the text at any given time. But such is the case of the tutorial, for, irrespective of the stage of discussion reached and the needs of individual students, in the institutionalised setting both convention and organisation frequently control the time taken. However, a lively discussion can be continued elsewhere (with both flexibility in time and location) - an option closed to the teletutorial student. Although in some institutions calls are mechanically terminated at a set time, tutors in this study have gone beyond their nominated time when they have felt the situation warranted it. While there is no social expectation to sustain the involvement if those studying print material wish to curtail it, in tutorials there is a perceived obligation to stay for the allocated time. Although teletutorial students are unlikely to terminate the call, they generally do not seem to share the tutor's perception of the importance and necessity of continuing. Because fatigue is
likely to be greater, and occur earlier, when a telephone is used than in a face-to-face situation, and as it is impossible to observe respondent weariness, the telephone should make one mindful of the time the session is taking. While an hour is the norm at both institutions researched for this study, student responses in other research (see, for example, Lamy, 1980, p131) have indicated that a much shorter period - a half-hour - would be an "ideal length". Moreover, the length of a telephone conference has cost implications and, with recent deregulation and tighter fiscal constraints, longer sessions are far less frequent. Sometimes, however, the time imperative has meant that sessions that were 'going nowhere' have ground their way through the scheduled period. Few tutors have been prepared to break with the conventional one hour space of the face-to-face session by linking students for brief periods for particular purposes, or, perhaps, disconnecting to allow extended time for reflection and then returning to the group. The sense of limited time is a foregrounded issue in many teletutorials, frequently in the context of inability to fulfil anticipated goals. In this regard inadequate planning, unrealisable agendas and poor orchestration of the discussion can be rationalised as time constraints beyond the control of the tutor. In terms of pedagogy, it appears to be the province of the tutor to control the session in terms of use of time and duration. This not only puts the tutor in a position of power but also in a position to use the time constraint to regulate the session.

A salient difference between the face-to-face teaching session and the teletutorial is the recognition that students with restricted and limited teaching/learning contact cannot readily be left to think issues through for themselves and return to them in the next session, for the gap between is too extended. If, by the time of disconnection, students are left bewildered and lost, they carry with them a sense of personal failure and the tutorial has probably had negative outcomes for them. Conversely, if the aim of the teletutorial is for students to develop their own understanding, the neat tutor solution when time has elapsed can be counter-productive. In a face-to-face situation, there may be a temptation for tutors at the end of the tutorial, where they are conscious the time allocated for discussion has passed and there is a sense that the points generated have not been fully adequate/complete, to reveal a prepared answer. Such teaching strategies can make students dependent on the teacher solution that will inevitably appear if they wait long enough. A more common strategy is to invite students to reflect further with a set time, that is normally brief, at which the matter will be returned to. For some tutors a considerable frustration with dealing with distance students is their sense of loss of the 'currency' of discussion and in this regard the teletutorial does not seem to supply the answer. A significant constraint of the teletutorial is that the extended gaps between sessions make it virtually impossible to re-visit a problem area. In all likelihood, by the
next session (assuming there is one) the issue will have been forgotten by both tutors and students and replaced by something more urgent/current; the need will have passed and there are possibilities that the identical group of students will not be reconnected. For reasons such as these it is clearly undesirable for tutors to leave students with what are perceived as misconceptions in key areas. Hence quite a fine balance is needed between students feeling they have left the session satisfied with the learning outcomes and the tutor confident that - rather than merely having been told - they have gone at least part of the way to understanding, so making the knowledge their own.

Responding to in-text invitations and with written assignments, students are not placed in the position of having their ideas challenged orally, with the expectation of an immediate response. This is a very different situation from the tutorial where there is likely to be overt pressure to generate response. Because of the expectation of an immediate and public response students can find that interaction stressful and this can influence both their participation and their reaction to what is said. Writing in the context of computer conferencing, Feenberg (1989, p24), concluded that "speeding up and improving asynchronous exchanges causes unexpected distress". In the teletutorial, with its synchronous exchanges there is no time to shape a reflection. Hence the student can present as incapable far more readily where the timing and the content of the question may have been unfortunate. Although in this regard both tele- and face-to-face tutorial students are similarly exposed, the teletutorial student is more vulnerable. Without the visual cues and the generally more frequent and extended contact of the tutorial, it is not surprising that (especially at the beginning of the teletutorial program) feelings of stress were indicated by the vast majority of students in this study, and these were not restricted to those of lesser ability and competence. However, for some students the very stimulus of the expectation of a response can lead to greater clarification and understanding as they attempt to articulate concepts they have but partially explored. Thoughts vaguely conceptualised assume shape with their expression; they can be developed and then refined in response to peer and mentor comment and further reflection. Hence the very immediacy can be productive as an impetus.

Both tele- and face-to-face tutorials offer students opportunities for formative discussion as compared with the summative mode of the written assignment that is generally seen as the consequence of the student's engagement with the print-based material. In the latter instance there is a strong likelihood that the student's writing will be tied to assessment and this can create an environment where students are loathe to take risks and so feel discouraged from pursuing what they perceive as an original - let alone,
aberrant/idiosyncratic - response. If they misjudge, the consequences can be too high. In the tutorial there is a far more sheltered environment where students can profitably be encouraged to bring forward unusual ideas and test these with peers and mentors before committing themselves to a written piece of work. Hence there should be encouragement and appreciation of the tentative, the partially formed and formulated, in a way that is not possible when the student is engaged in academic writing. There should be an encouragement of the learning process in the sense of 'coming to know', as contrasted with being 'told/informed about'. Further, in private written preparation there are opportunities for consultation and the extent to which ideas are derived, although theoretically indicated by referencing, is unlikely to be fully revealed. Where information has been synthesised, rather than understood, the student may be challenged by the comment and assessment of the written work, but that challenge does not have to be responded to with the risk of public loss of face, as can be the case where the tutorial (both tele- and face-to-face) probes to the extent of being termed an 'oral exam'. While examinations are normally mandatory, where the pressure on students in tutorials is perceived as excessive, students are likely to withdraw. This may take the form of non-attendance but it also contributes to reduced voluntary participation. In the teletutorial students are inevitably on their own; in the face-to-face tutorial situation any consultation is apparent. While it is considered a necessary and enhancing function of academic writing, seeking support in an oral context is likely to be awkward because of the time taken to cite the reference and hence disruptive to the discourse. It can be interpreted as indicating an unpreparedness to express an opinion in one's own voice and from one's own knowledge. Moreover, contemplation of what will be said is likely to distract attention from what is being heard, and, in the face-to-face situation, seen.

Auditory and visual considerations

In the face-to-face tutorial the shared space of the environment is part of a shared reality for all participants. Feenberg (1989, p33) wrote:

As soon as we enter a room, we orient ourselves according to the tacit cues of the conversation we are about to join. These contextual cues establish a mood from which flow norms, roles and expectations.

For students of both self-contained print-based study and in the teletutorial, there is a physical disconnection - an absence - from the place where the teaching was derived. In the former instance where there is no interpersonal interaction, the 'contextual cues' referred to by Feenberg are irrelevant. In the teletutorial, however, the physical separation of the tutor from students, and students from the tutor and one another, means that the discourse must develop without customary contextual supports.
Both print-based learning and face-to-face experiences draw heavily on the presence of the visual channel for communication. With the former, sight is normally focussed on the printed page; with the latter, the focus may well be broader and is likely to range from attention to written/printed words to people and the physical setting. Mehrabian (1971, p44) concluded that generally "a person's nonverbal behaviour has more bearing than his [sic] words on communicating feelings or attitudes to others". He wrote (piii): "[the] contribution of our actions rather than our speech is especially important, since it is inseparable from the feelings that we knowingly or inadvertently project in our everyday social interaction and determines the effectiveness and well-being of our intimate, social, and working relationships". He identified that such nonverbal actions as leaning towards or away, body and eye contact and posture communicated positive or negative feelings about a person. In the teletutorial situation where the visual communicative channel is closed, a significant way in which communication occurs is lost. The extent to which this is deprivation depends on many contributing factors.

Where audio-only communication is likely to be inadequate is when visual input is an integral part of the teaching and learning. It is possible to incorporate strategies to reduce the effect of reliance on the auditory channel*, and in this regard awareness of the limitation obviously influences pedagogy. Where, for instance, there is a need to incorporate pictorial data these can be sent to students prior to the session. This has the consequence that the tutor will have set the agenda (hence reinforcing the stereotype of tutor dominance) and knows what information will be drawn upon. There is no opportunity to respond to the spoken discussion by visual illustration and, to this extent, the teletutorial forfeits some of its immediacy and spontaneity. In a face-to-face situation, not only is there such flexibility but the tutor is able to reveal visual images at appropriate stages. While this is also probable with the integration of pictorial and written text in print material, in the face-to-face situation only is the element of surprise - and the opportunity to challenge students in this way - possible.

Where the teaching and learning do not incorporate visual elements the loss of the visual channel is less likely to be prohibitive. Fowler and Wackerbarth (1980, pp238-239) concluded that "in many respects audio communication is equal, if not superior, to face-to-face communication", citing such features as accuracy for conveying objective

* Technology allows both ends of a telephone connection to receive graphic material and recent advances have linked visual image to telephone voice using compressed digital technologies. As these are not part of the model discussed here, their possible pedagogical significance has not been considered. It should be recognised, however, that the level of sophistication and expense of such equipment make them highly place-restricted and hence the advantage of taking the tutorial to virtually any location is lost.
information; accuracy and rapidity in problem solving; achieving desired attitudinal changes and for discussion of ideas. As far as pedagogy is concerned, this research suggests some qualifications.

Bates (1981, p221) stated that there did "seem to be some evidence that different individuals might respond in different ways to different media" and the variety of responses to audioteleconferencing within the limited context of this research supports his perception. In common with Burge and Howard's findings (1990, p61), this research indicates that an important criterion of the effect denial of vision will have on participants is the degree to which they rely on visual modes of perceiving and processing information. A further influential factor is the extent of experience with the audio-only medium and the number of times the group has met this way. Novices typically feel insecure, doubting that they will be able to teach and learn effectively without visual support. A salient feature of early teleconferencing experiences, such anxiety becomes insignificant for the vast majority of participants as they adapt to the medium. As with all communication, early encounters are more studied, more forced, as the participants strive to establish comfortable and acceptable patterns of behaviour. Communication is, however, inescapably a personal experience and face-to-face contact is not inevitably productive. Speaking at cross purposes, ignoring or falling to address the other's concerns, employing strategies of avoidance or defensiveness - such problems are not inevitably resolved with face-to-face communication as they are endemic to all oral communication.

An important feature of conversation is listening as well as utterance. Teletutorial students frequently reported that the audio-only environment and the need to pay close attention to what was being said led to greater concentration. Speakers need to coordinate their talk so that normally one person speaks at a time and speaking turns succeed one another relatively smoothly. As Graddol and Swann (1989, p77) claimed:

It may seem obvious that people take turns at speaking but this is in fact an achievement requiring considerable skill. The gap between two speaking turns is often as little as a fraction of a second and to achieve such rapid transitions listeners need to predict when the current speaker is likely to finish speaking and a new turn can legitimately begin.

Although indicators are provided through the structure of the language and by intonation, significant cues such as eye gaze and gesture are denied in the teletutorial. Not only is this denial expressed in awkward gaps between utterances, but it can affect the dynamic of the interaction to the extent that Sewart (1981, p14) concluded "tutors, deprived of non-verbal signals, teach at their own pace, and their students, unwilling to
contribute to a technological anarchy, refrain from interrupting”. In contrast, Hopper (1992, p10) claimed that, although "we must not dismiss as trivial all differences between face-to-face and telephone speaking", while visual cues are absent, "telephone speaking’s rich communicative ecology is surprisingly like face-to-face speaking”.

It is difficult to determine with any degree of confidence or exactitude the significance that seeing interactants has in telephone pedagogy. Not only has this eluded experimental studies (see Chapter 2: section 2) but, with conference calls, the use of a 'bridge' has significant implications for communication:

They [the tutors] are accustomed to overriding conversation in a conventional call without acoustic detriment, but, in a teleconferencing situation, this results in crackling, fading and clipping of words as part of the bridge mechanism automatically switches the system off momentarily at both ends in response to the simultaneous conversation. (Grace and Thompson, 1989, p27).

Overlap is regarded as an integral part of interaction (Gumperz, 1982, p160), yet in the teletutorial where a bridge mechanism is used only one voice will be heard at a time. This means that, where tutors seek affirmation, they may be concerned that there is but one student response for, if all speak simultaneously, the microsecond of the first utterance will cancel the rest. Hence such technical mediation influences what is heard. In tape-recordings of face-to-face groups it was sometimes impossible to distinguish what was being said because of the overriding conversation. This does not occur in the tape recordings of the teletutorial. However, in a context that lacks visual input, if the language of the exchange is distorted, disjointed, indistinct, or, at worst, impossible to hear; if the tutor feels compelled to articulate very artificially and the students feel forced to imitate this; if voices sound disembodied and remote - "it felt as though they were speaking through a tunnel" - then the whole tone of the exchange is marred and the exercise, itself, sabotaged (Grace and Thompson, 1989, p27).

Students in a teletutorial frequently reported that the audio-only environment and the need to pay close attention to what was being said tended to lead to greater concentration. There is, however, a related limitation. Without the distraction and employing of other senses to the extent that would normally be found in conventional teaching, the concentration span is lessened. However although in the face-to-face tutorial there is a probability of multiple auditory and visual images, other factors may impinge to reduce the level of concentration.

* * * * *
Although face-to-face teaching and learning has the potential to be interpersonal, relational and collegial in a way that the teletutorial is not, the teletutorial is still seen as providing an opportunity for interpersonal interaction that is absent from a more restricted expression of external studies. Working with print-based material is often (but not inevitably, as discussed above) an isolated and solitary activity. The tutorial is one way of bringing students into contact with their mentors and peers. While the print material has a tendency to isolate in terms of interpersonal interaction, the tutorial aims to connect. In terms of pedagogy this means that the interaction with the text is a function of interiorization as the response remains unrevealed. In the tutorial it is probable that there will be occasions where what has been internalised is articulated and so externalised. Hence, the interaction with the print material is only as strong as the individual reader, while the tutorial draws on group synergies. Although it is probable that collectively the level of understanding and knowledge will be superior to that of the individual, this is not inevitably the case and in the tutorial the participant is exposed to the weaknesses as well as the strengths of the group.

**VOICE AND PRINT**

... the symbolic significance of "print" and "orality" is often asserted to be (confused with?) an effect of the media: print, we read, individualizes its users, while oral/aural modes of communication communalize, acculturate, and integrate individuals into a tradition. Most histories of communication weave a narrative from these meanings which has all the explanatory power of myth: it charters contemporary institutions and shapes the moral stance we assume towards them. (Leed, 1980, p43)

Arguably the most fundamental and significant difference between teaching and learning premised on interaction with print and that premised on interaction with people is that one form is written and the other spoken. As discussed earlier (see Chapter 2: section 3), theorists such as Olson (1977) and Ong (1982) have separated speech/utterance and literacy/text and developed an orality-literacy construct. It seems appropriate at this stage therefore to recall Brown and Yule's (1983, p4) assertion that spoken and written language "make somewhat different demands on language-producers". Further, with legitimacy and reliability vested in literacy and the continuation of educational practice of privileging literacy over orality, it is apposite to contemplate the role of spoken language in generating knowledge and understanding.

I do not consider there is a contradiction between claiming that educational practice privileges literacy over orality, yet stating as I have earlier that the normative paradigm
of teaching and learning incorporates the face-to-face encounter. Although face-to-face sessions are the most apparent expression of on-campus teaching and learning, frequent, meaningful face-to-face interaction in most post-secondary education can, with justification, be treated metaphorically. For Kemmis (in Modra, 1991, p88):

... we have these idealised images of what ... face-to-face teaching is all about and the students are very rarely in that sort of situation: and what seem to be these subtle, complex, sophisticated human interactions with the wise tutor nodding sagely and allowing a student to struggle with an issue and stumble into a brilliant insight, are actually an extremely rare thing, and most of the time it's a bit of a power trip in which the tutor is flogging the students along, most of them pretty alienated and disconnected and so on, and most people don't experience the brilliant insight.

As Bates (1990a, p5) pointed out, the norm for all students is to study alone and interact with texts and other learning media. On those occasions where face-to-face interaction does exist (and they represent but a small part of any tertiary student's life when quantified in contact hours), the reliance on the spoken medium is ostensible rather than actual. This is because in most lectures and tutorials speech is supplemented by many forms of writing: for instance, on boards, by overhead projection, or as pieces of paper provided as handouts. Moreover, in many instances what is being said is actually being read and what is being heard is being transformed to written matter as students make notes. Hence the customary demarcation between written and spoken is blurred. As Gillard (1992, p18) concluded from similar observations:

... it seems that conventional education is much more about writing than first appeared, and much more about writing than about speaking, more about the text than the voice.

There are many critical differences between written communication and conversation and observable further differences in each of these. The communication of a letter is not the same as that of a scholarly journal, for instance, and even if only the first instance of the letter is explored a little further, such variables as the person to whom the letter is addressed, the purpose of the letter, the writing style of the correspondent - even the stationery used - and so on will have important effects. Further, there can be subtle changes to how the message is conveyed through the numerous font and layout options available for printed text, although it lacks the personal statement of the calligraphy of hand-written text*. Similarly conversations vary enormously. Hence, as stated above, this discussion is situated within the specific context of the written study material for the

* While this fact has been recognised, as there is an assumption in this instance that the material referred to has been printed, the two terms ('written' and 'printed') are generally used interchangeably.
tertiary off-campus student and the spoken discussion of the audio-tutorial and the face-to-face tutorial.

Matters of presentation

It is the writer's aim to catch the reader's interest; the speaker's to catch the listener's interest. In the former instance there will normally be close attention to how the material is visually presented, with detailed attention to such refinements as font (both size and style). Emphases, for instance, can be suggested by change of font, bold, italics, underlines and the choice made will influence the reader's interpretation. How the page is formatted, how it is supported with illustration are critical for the communication. Choices of paper, with their different tactile response from textures as well as impact from colour of stock, have their own messages. So communication depends not only the words, themselves, but the presentation of those words. Similarly, while the words are the basis for the spoken communication, how those words are heard is critical. In the same way that selection of visual elements can detract from or enhance the printed text, voice qualities such as tone, timbre and accent have a similar role with spoken discourse. As Moffett (1965: 1981, p141) pointed out, "Written discourse must replace or compensate for the loss of vocal characteristics and all physical expressiveness of gesture, tone, and manner". Although, then, it appears that written discourse is inherently disadvantaged and the discussion above regarding transcription (see Chapter 4: section 4) suggests this is so, it should be recognised that the facilitators for print are multiple. They are concrete and external and hence more readily manipulable and controllable than is the voice.

While any telephone system or microphone has the effect of influencing body positioning (especially facial), the hand-held telephone is especially restrictive. Not only does it affect the ability to manipulate and integrate supporting material such as references and paper, but, with hand-held telephones, voices tend to fade as the mouthpiece is not held as high as a response to fatigue and/or waning attention. The telcetutorial sessions revealed many occasions where students could not be heard clearly. At a minimum this disrupted the flow of the discourse as there was a need for repetition; at its most obtrusive it caused disconnection from concern not to ruin the experience for others. Moreover, hand-held telephones reduce the concentration time span and students frequently commented that lengthy sessions were difficult to endure. It is probable that different perceptions of length of time between tutors and students may be partly attributable to tutors who often use hands-free equipment not having to keep a telephone to the ear for the length of the session. In this instance, the need of some telephone users to retain manual dexterity has meant that the technology has been
adapted in response to the human factor. However, such telephones, while facilitating the ability to manipulate material etc, are not immune from problems. Even when recent technology is used, occasionally feedback still obtrudes and distorts, especially when operators have not set the equipment correctly.

Even where the equipment is sophisticated, technical failures occur and they can (as discussed in Chapter 6) have a deleterious effect. Where technical problems exist in the production of print materials, their nature is generally unknown to students. Technical problems may, however, lead to delay in mailout and these delays can have significant attitudinal repercussions. Where technical problems are expressed as errors in the material, they can lead to frustration and necessitate increased administrative support. However, technical problems are more likely to be irritants than detrimental. The print package will be delivered and can be amended. The teletutorial, however, may be aborted and the experience lost.

The nature of the language

For Halliday (1987, pp148-149):

Writing puts language in chains; it freezes it, so that it becomes a thing to be reflected on. ... Writing deprives language of the power to intuit, to make indefinitely many connections in different directions at once, to explore (by tolerating them) contradictions, to represent experience as fluid and indeterminate. ... But, secondly, in destroying this potential it creates another one: that of structuring, categorising, disciplinising. ... Thus writing changed the social semiotic on two levels. Superficially, it created documentation - the filing of experience, the potential to 'look things up'. More fundamentally, it offered a new perspective on experience: the synoptic one, with its definitions, taxonomies and constructions. (Italics in original)

It is probable that in written material the language will be more formal with a precision that would be seen as pompous in speech. There is likely to be a first or third person emphasis, and although some writers will diffuse the personal construct by using impersonal constructs and the passive voice, in reality much written study material is T centred with the single voice of the writer dominant. While it is the norm for other voices to be incorporated through readings, quotations and paraphrases, the selection and use, as well as interpretation, of these other voices is subordinate. In the tutorial situation the probability is that the language will be less formal, there will be a second person emphasis and the discussion will be group centred.

In written material it is normally essential to complete the sentence according to grammatical and syntactical conventions. In spoken language much comprehension in
the verbal mode is anticipation. It is not always necessary to complete a sentence and often a sign of dynamic exchange is that incomplete utterances are completed by another, applying that interpretation to the intended meaning and so contributing to the shape of the shared discourse. Hence in much face-to-face communication, conversations tend to converge as there is a tendency for the real-time situation of the discourse to accommodate interruption and talking over. In the teletutorial where a 'bridge' is used the competition for linguistic space is controlled by the technology that allows one voice at a time (see above). While speech protocol can be critical to the teletutorial, it is of less significance to the success of the face-to-face encounter as here visual cues can support the interaction.

Printed material generally covers points more economically, for it is lexically more dense than spoken language. While there is scope for greater detail and fuller development than is probable in the tutorial, at the same time through editing and refinement the prose is likely to be sparser, more cogent and more precise. In such published written language, although there may well be time and resource constraints, there will normally be rigorous attention to detail with careful concern for such issues as lexical and syntactical choice and a compulsion to tidying up. The selection, manipulation and integration occur before contact with the reader who sees the sanitised result. While sheltered from the tedium and the labour that accompanies much writing, there is unlikely to be appreciation of the care and attention that some print packages have received. Somewhat ironically, the best written text appears as though it has inevitably been shaped that way. Further, where the writing style of the author has undergone considerable editing by others, the final text may no longer be clearly in the writer's voice as the spoken utterance is inevitably that of the speaker.

The goal of language use in the printed text is exactitude; in utterance the goal is more likely to be fluency. One strives for elegance in written prose; eloquence in speech. While the felicissimo spoken phrase may be memorable, in the context of academic discussion it is more likely to be arrived at spontaneously than is its counterpart in written text. Hence with written text there is likely to be a higher degree of conventionalisation: the printed text is more artificial and more contrived, frequently with close attention to print structures and conventions. In this sense it is more 'technological'. Not only is spoken discourse more spontaneous and hence more natural, it can accommodate misspoken thoughts more comfortably than print copes with misspelled words and typographical errors. Conversely, however, accents and other potential speech impediments that are foregrounded in spoken discourse are irrelevant in written communication. For students, pronunciation of unfamiliar words is
unnecessary in a written environment. With spoken discourse there is a perceived
requirement to pronounce such words accurately and confidently, and, for many
students, stress results from efforts to evade such terms, with embarrassment when
errors are brought to public attention.

In conversation concern with concrete externals such as print structures and conventions
is replaced with attention to the less tangible aspects such as speech nuances. The
timing of the words assumes the function of the positioning of the words in printed
material. Tone and tenor (which are sometimes contrived for special effect but more
normally unconsidered) replace attention to fonts and format. Indisputably comparison
of the same person developing an argument in print and in a tutorial indicates that there
will be quantifiably more redundancy and impediments to the flow of the discourse
(such as hesitations, re-phasings) in the spoken situation. The speaker can be
challenged, interrupted and deflected. Halliday (1987, p150) categorised spoken
language as "the natural, unself-monitored discourse of natural dialogue: low in
grammatical metaphor, low in lexical density, high in grammatical intricacy, high in
rheomodal dynamic". The spoken language is richer in phatic codes and functions, with
body language supporting the communication in the face-to-face tutorial. Whereas
meaning is concentrated in the language itself in the print text, language is embedded in
the non-verbal environment in the tutorial, albeit with concentration on the auditory
channel in the teletutorial.

The nature of silence

The stylistic of orality appears to demand interactive and continuous response. Lapses
in conversation are so potentially embarrassing and uncomfortable that there is a
compulsion to fill them or resort to 'masking' behaviours such as coughing or
meaningless sociocentric sequences such as "but uh", "so" and "anyway" to stimulate
utterance (McLaughlin and Cody, 1982, p299) or to assume or regain one's place in the
conversation (Carey, 1981, p310). Tannen (1990, p260) suggested that many of the
characteristics of a high involvement in conversation could be understood as ways of
avoiding silence, seen as evidence of lack of rapport. Conversely, where silence is used
to avoid speech it is possible to interpret it as a negative discourse element. Hence
(where the context is interaction through conversation, in complete contrast to
interaction with printed text) there seems an imperative to regard silence as potentially
dysfunctional. Yet, where the context is tertiary teaching and learning, it would appear
that to assume immediacy in discourse would, itself, be dysfunctional in that it would
not allow proper time for reflection before committing oneself to utterance. Hence
normative social patterns that privilege speech over silence may not be apposite.
In the context of academic discourse, Grimshaw (1989, p374), while acknowledging intraspeaker variability, concluded from his research that "... it seems clear that timing, pauses, and breakdowns in timing, and so on, all reflect, in some way, what interactants are doing cognitively". This research also suggests that it is probable that there is a link between the relative proportion of any speaker's turn unfulfilled by talk and the size, complexity and difficulty of the cognitive unit being processed. However, with the specific context of the tutorial, as Baxter (1985, pp737-738) reported, "one of the most important criteria for discussion group success or effectiveness is the degree to which all members participated", with the more time a group spent in silence the less it was concerned with solving the problem under discussion (p725). Yet, while Baxter cites a number of studies in educational settings that support this contention, earlier (p726) he had referred to the work of McLeish et al (1973) who found that the person who learned most from group discussion was usually the person who participated least, since that person had the greatest opportunity to watch and learn. Hence it appears that the issue is not clearcut. Certainly, there is no clear correlation between tutorial involvement and student satisfaction with the experience as a whole and learning outcomes in particular. Students who had seemed to have minimal involvement could express considerable satisfaction; those with considerable involvement were not inevitably content.

In the face-to-face tutorial, although there is an expectation that speech will prevail, silence is supported by visual cues (for instance, a puzzled look may support that the failure to respond to a question is due to lack of comprehension) and is often sanctioned by observable activities (for instance, silence in response to the initial allocation of a group task while supporting material is read). In the teletutorial silence is much more difficult to interpret and handle. Silence, when the student does not know how to respond, can be embarrassing and non-productive; silence when a student is thinking carefully about what will be said supports the student by allowing adequate time for that reflection and allowing the student to choose when to speak. As Nichols and Stevens (1957, p37) recognised, there are several 'brands' of silence: from cold and chilling to warm and receptive; silence can be demanding, silence can be supportive. It can also be neutral, providing space for continuance, but not encouragement. In the teletutorial, because of the lack of visual cues, not only does the teletutor lack important supports to interpret and guide response to silence, but so, too, do the students. This is a further reason that there is a tendency, especially with inexperienced tutors (who almost inevitably attribute gaps in the discourse to technical failure), to ignore time for reflection and to fill the gaps with words - these words usually emanating from the tutor, though this is a problem with most teaching, it could well be argued. Carey
(1981, p312) noted that "even brief moments of silence [he cited a 2 second gap] following a question addressed to a specific person are likely to lead to an inquiry about the presence of that person". However, while 3 seconds is a recognised indicator of a significant lapse in conversation (see, for example, McLaughlin and Cody, 1982), the teletutorials are likely to have numerous unfilled silences, with periods extending frequently to 15 seconds; 42 seconds being the longest recorded in this study. With the possible exception of someone who is thinking or distracted, unfilled pauses appear very long to interactants - generally well beyond their actual time. Frequently such lapses cause tutor anxiety, student frustration and significantly impede the discussion. Hence, there is a tension between allowing adequate time for reflection and yet not letting the pause become so extended that the dynamic element of the discourse suffers. There is a related tension for tutors between allowing a pause to extend to an awkward extent or intervening and so assuming not only a dominant role (problematic, in itself, for some tutors) but potentially intruding on student thought and assuming the space that a student may have been on the point of filling. There is a need also to be aware when the silence is that of the entire group and when it is of the individual to whom the invitation to speak has been given. As Baxter (1985, p725) recognised, group silence, as well as having possible effects on group interaction and learning, is important as an indicator of the emotional tone of the group.

**Then and now; fixed and transitory: the nature of the time frame**

Print is drawn from the past - 'then' - as, irrespective of how recently produced the material is, it inevitably is written before the student encounters it. In contrast, a tutorial (whether audio- or face-to-face) is of the present, 'now'. Temporal relations have received some attention in the earlier discussion of 'Presence and Absence' - mainly in the sense of synchronous and asynchronous pedagogy where real-time interaction was compared to print-based study which accommodated flexibility with time. While there is definite interrelatedness, to the point of overlap, the focus here is on the pedagogical implications of course materials that are inevitably created apart and before the student interacts with them, in comparison with the tutorial (both tele- and face-to-face). This is considered a relevant and significant aspect of the discussion of 'Voice and Print'.

* * * * *

The structure of much distance education print material is premised on external direction and control, incorporating strategies that have either been derived from, or can readily be aligned with, conventional approaches to teaching. The content, as well as the resources, have been selected and presented by the institution through authors and
instructional designers; the aims and objectives have been specified and defined; the sequence with which the course will be handled is often tied to the assessment tasks and these have usually been stipulated for content as well as for time of submission. Kemmis (in Modra, 1991, pp86-87) conceptualised a persistent approach to developing distance education print material as a desire to "get it 'frozen' and put in place". Although his preference - and that of others - is to regard the curricula of the courses he has been involved with as "provisional, never as final" for "you can only know how good a course is by its consequences", and to conflate the roles of author and teacher, teacher and student, as he appreciated this is atypical. The norm of external studies material is to separate writer from reader and to fix the print materials in such a way that they can be accessed by multiple cohorts of students over several years. As such (with rare exceptions), they signal a teacher-directed approach in inception that is an inescapable constituent of essentially all pedagogy.

Ironically, as Juler (1990, p26) noted

attempts in distance education to encourage independence on the part of students usually entail the educational materials assuming the same kind of dominance in the discourse, a dominance which severely limits the nature and amount of interaction which may occur.

In that print packages disseminate large quantities of information in a convenient package, the descriptor 'lecture in print' is frequently more appropriate for substantial sections of study materials than 'tutorial in print'. Where the latter descriptor is warranted is where there are evident strategies to engage the reader with the text and the approach is that of a dialogue between the academic writer and the student reader. Bates (1990a, p8) contended that "what differentiates distance learning texts from other kinds of printed material is a deliberate attempt to structure explicitly a student's response to the material". However, even where there is such 'deliberate attempt', the educational materials are, to a very large extent, processed for, rather than by, the student. The dominance of the author(s) means that "students are pushed even more firmly into accepting the programme maker's [or author's] view of reality" (Brown, 1984 in Harris, 1987, p107); "the typical in-text exercise presupposes that the text as teacher maintains the dominant role in the discourse" (Juler, 1990, p28). Peer opinions, a critical component of the tutorial, whether tele- or face-to-face, and an important contributor to how students perceive the study in its entirety and their individual roles and places within it, are excluded from a print package. Hence the voice heard is inevitably that of the informed, scholarly writer and the reassurance that the tutorial often provides the student by peer voices that can add a less rudite dimension to the discussion is forfeited.
At the minimum, by the end of the year printed study materials will be many months old; normally a shelf life of unrevved print material is five years. In some disciplines especially, material becomes out of date rapidly and it is impossible for the student to gauge the impact of new information on how the writer would now construct an argument. Despite the most concerted efforts of instructional designers and others responsible for shaping the interactive nature of the print material, the extent to which the student responds to the various interaction cues is purely the province of the student and it is generally an unknown factor to those who prepared the materials and/or those who teach from them. There is no inevitable engagement with the text, even through exercises.

With the printed material the physical presence of the knower is separated from the known; in the tutorial the knower and what is known are brought together. Even where experience with on-campus students studying the same course can refine the reader persona, to the writer of the external study materials, the student audience remains a generalised sense, while in the tutorial the student is 'known' as an individual: partially revealed in the audio-only environment, more fully in the face-to-face situation. In the tutorial, conversation is addressed to a particular cohort and can be tailored - but not necessarily or inevitably - to suit the responses that emerge. The dialogic property of conversational exchanges means that interpretations are more overtly jointly negotiated by the interactants and confirmation, amendment, ignoring - whatever the reaction - is integral to the shaping of the discourse. Hence the discourse draws on the element of reaction/response. Bakhtin (1986, p68) wrote that "any understanding of live speech, as live utterance, is inherently responsive" for, when one listens to an utterance, one:

simultaneously takes an active, responsive attitude toward it. He [sic] either agrees or disagrees with it ... augments it, applies it, prepares for its execution, and so on. And the listener adopts this responsive attitude for the entire duration of the process of listening and understanding ...

For Leed (1980, p49) "one of the primary characteristics of print is that it is a neutral, impersonal, or 'cool' medium of communication". In the case of written texts the dynamic and dialogic nature, if no less certain, is certainly less apparent. As Rommetveit (1974, p63) so compelling put it: we write "on the premises of the reader" and read "on the premises of the writer" but the processes of the negotiation are not revealed. As one aims not to exclude the reader (see discussion above),

... in a discourse destined for distribution and publication to a mass, anonymous audience of present and perhaps unborn people .. I must use a vocabulary, style, logic, and rhetoric than anybody in that mass audience can understand and respond to (Moffett (1965: 1981, p141).
While the written study material is addressed to a faceless unknown reader, and that person may be anybody at any place and at any time with access to the material, the reality of the situation is that the writer of external study materials (in contrast to the writer of non-targeted text) has some sense of the *persona* of the reader and the period in which that material is likely to be accessed. There is some care in the production of printed texts to set language, concepts and so on at an appropriate level of difficulty, although knowledge that the material may well be read by academic peers and reflects the academic standards of the institution can inflate the level beyond what students encounter in less public arenas.

The separation of writer and reader with its detachment may contribute to more carefully prepared and more universally applicable material than is the case where the information is presented (either in writing or orally) for a specific person or small group. For the writer, because there is normally time for reflection and consultation, it is likely that the argument developed will be more sophisticated in both concept and tenor. With distance education materials, however, this is not necessarily advantageous if the aim is meaningful interaction for, by this very sophistication, some students may be excluded. Evans (1989, p117) appreciated this point when, referring to some distance education materials as 'tomes', he considered they were often "brilliantly articulated and beautifully illustrated pieces" of academic argument which could "leave the student with a feeling of inadequacy in the face of such perfection".

In the case of the printed material, student response is conjectured; in the tutorial there is the potential for it to be known. While the writer of the print material may, through careful strategies, strive to communicate clearly and cogently, how that communication is received by the reader is generally hidden unless students take the initiative to indicate how they have received the material or student feedback is sought in this area. The author generally is denied knowledge of how the actual information sent has impacted on the reader. Most writers imagine their words will be read carefully and sensitively by motivated and capable students. To contemplate a possible reality of text being skimmed through, or read with sandwich in hand on the local bus by a student of minimal ability, would act as such a disincentive that such thoughts are likely to be suppressed. Hence the writer may lose the boost to confidence of the committed student who is excited by what is read and is positively affected by it, but equally may be protected from the bored faces and inattention that sometimes are conveyed to the tutorial presenter and immune from the gross misunderstandings that sometimes await both tutor and teletutor.
With written text there seems a common belief that communication problems are attributable to the reader who lacks the skills to understand; in spoken discourse it is more commonly believed that the problem lies with the speaker who lacks the skills to communicate clearly. With print packages there is a student expectation (and frequently a tutor expectation as well) that queries, clarifications and so on are not feasible, whereas for many a fundamental purpose of the tutorial is to provide a forum for such matters. The message can be interrogated. In most cases where external studies is restricted to print material misconceptions are not revealed unless, and until, there is some other mechanism (such as a written assignment) where it becomes evident that the communication has faltered. Given the bulk of the print package and the ad hoc and occasional nature of such feedback, it is reasonable to assume that most of the student reaction to printed material remains unidentified. In contrast, in the spoken tutorial (both tele- and face-to-face) there is a fuller revelation of student reaction. This may be through questions and comments, but also more subtle cues (such as tone, hesitation, fluency) can be useful indicators. However, as discussed above, the denial of vision in the teletutorial means that nonverbal and contextual indicators are absent. Even where all sensory elements are present, however, it is unlikely that the student reaction will be completely exposed. Social constraints, academic pressure to be seen as performing well - factors such as these - tend to cloud student frankness.

In print the writer has expressed a particular viewpoint and is unable to respond to any question, criticism or challenge. Where the material is ignored, rejected or highly appreciated the reaction is likely to be to the text, rather than the writer. Despite efforts to personalise study materials (even to the extent of adding photographs and personal biographies) the author of the written study material is likely to remain distant, inaccessible and relatively unaccountable when compared with the tutor who is present and open to immediate and relatively inescapable reaction and response. While in the case of printed study material the intellectual responses of unknown students may have been conjectured during the preparation stage, that input is restricted, coming, in most cases, from the writer's perception and limited to that imagination and frame of reference. As considered above, that speculation is likely to be a construct of favourable images. For the writer preparing study materials in isolation, the writing is of a personal/private nature with low immediate risks to self-esteem and no competition from other voices. Where a course team approach is adopted there may be greater risks to self-esteem and a range of other voices to be heard. However, as there is a shared common goal of producing the best possible written study material, given the time and resources available, these voices, rather than being competitive, should be supportive. Once the material has been produced, however, the published writer is exposed to
public scrutiny in an unknown and generalised sense. The tele- and face-to-face tutor have comparatively known and private forums and what is said is gone with the utterance, while what is written exists as a permanent reminder.

Where material is written, there are normally opportunities for editing and revision and so printed text demonstrates concern with sequence/order, coherence and logic in a way that spoken utterance cannot accommodate. The fact that the material is readily correctable in its formative stage means that drafts can be destroyed and made nonexistent and earlier crude text is private to the author. A 'bad day' will not be exposed to public scrutiny, whereas the performance on the day is critical to those who are engaged in spoken discourse. But formality and opportunities for amendment do not necessarily breed accuracy, expertise or validity, despite a general expectation that what is written and residual is authoritative. Moreover, the sheer bulk of the printed study materials can be intimidatory and act as a disincentive, whereas the ephemeral nature of the spoken word means that it is never presented visually as a massive burden.

In written material correction generally enhances; in spoken utterance correction, although refining the content, almost inevitably detracts from the impact and effectiveness of the presentation. Not only is there a cost to fluency but while correction in written material can be made much later than the original, in spoken utterance the correction, to be effective in terms of the dynamic of the discourse, needs to be done immediately. However, the original effort cannot be summarily erased and will remain in the memory of the participants. Nevertheless, it needs to be recognised that there comes a time with print where the text is 'fixed' and further corrections are not only difficult to the point of impossible, but, where made as errata and amendments, flag inadequacy. A further consequence of the fixed nature of printed material is that the same text which, in the fluid writing stage, can be written and re-written can, once published, be read and re-read. Hence it can be reflected upon at leisure and in a context that is considered appropriate and there are multiple opportunities at different times and in different contexts for the same points to be considered. Although this can generally be assessed as an advantage of print, there are related dangers that, in contrast to the tutorial, which is clearly located temporally and spatially, published statements can be read at later periods and inappropriate contexts with little cognisance of the time and context in which they were written. Considering the "fixity' which printing and print lent to discourse", Lecd (1980, p55) reminded us: "Writing makes the word durable. The power of the press [and photocopier] to duplicate texts infinitely enhanced the chances that any given text will survive". In Smith's (1988, p42) concept of "textually-mediated discourses":
The appearance of meaning as a text, that is, in permanent material form, detaches meaning from the lived processes of its transitory construction, made and remade at each moment of its course.

This means that local settings and social relationships are transcended. Ironically, as Bowers (1988, p82) pointed out, as context and authorship are lost sight of over the passage of time, the written word can assume even more authority.

The transitory nature of the spoken utterance, in comparison with the language being fixed in print, has a number of implications for academic discourse. It is far more likely that, for the published writer, material is attributed by name and is owned. Almost inevitably written material will be accessible to a much larger number than will any tutorial. While most academics welcome the sense of communicating with a wider audience, ideas expressed in published text can be used by others who may not appreciate or acknowledge their debt. Student reticence is not invariably due to lack of competence or confidence. Some students choose not to communicate their ideas in tutorials because they fear that their peers will derive what they perceive as unfair advantage from them. Although plagiarism in academic circles occurs, the ownership of published material is verifiable in the way an idea derived from conversation is not. Both printed text and spoken utterance are open to interpretation. Hence what a reader/listener takes from the discourse is not definite and inevitable, but, because the written text exists, the basis for that interpretation is visible whereas spoken utterance depends not only on the interpretation given it but also the memory of the listener(s).

Any utterance of reasonable length and complexity cannot be recalled in the precise form of the original. Because of its ephemeral nature it cannot be retrieved for later consideration and the ease of replication of printed material for dissemination is denied. Further, the written publication is retained. The spoken utterance vanishes at the time of the utterance and even if there is an effort to hold it as written text, this will not replicate the complexity of the spoken utterance but will - in most instances - be condensed/edited and restricted to content.

In response to the ephemeral nature of spoken discourse there is a compulsion to capture and hold it, occasionally by audio-tape-recorder, far more commonly by reconstituting it as written text. Many students feel an important part of any teaching/learning session is to take notes as an aid to later recall. This attention to writing (and reading) - this attempt "to reduce the flux of oral information to a written form" (Gillard, 1991, p18) that can later be re-visited, is both evidence of the perceived importance of the spoken word and denial that the utterance expressed can be retained in the mind unless
structured as written sentence. For Juler (1990, p27), the notes so derived, usually in
"feverish haste",
become a de facto text with which the students must interact if they are to learn
anything. It seems undeniable that far more time is spent interacting with this
hand written text than with lecturers and tutors combined. ... My own
experience suggests that the quality of these student versions of the text is poor
relative to the original when compiled from a spoken text.

In an external studies situation, a student is free to work at the pace desired and the
material to be noted is clearly and readily available. In a face-to-face situation the room
furniture is generally designed to accommodate note-taking and most tutors (it cannot be
assumed all) will be aware of and respond to students whose attention is clearly directed
to making notes. Hence information will be repeated, pacing will be slowed, and
various 'fill-in' tactics will be employed to support students in this area. Such support
may, however, be irksome for the student who does not share the perceived need.
Where more complex names/terms are used, these tend to be taken from the spoken to
the written, being displayed on boards or provided in printed handouts. In the
teletutorial such visual support is not available and the tutor cannot observe when
students are writing information. Further, the conventional telephone is frequently
regarded as cumbersome and awkward. Any note-making is far more difficult as
students attempt to juggle pen, paper and the telephone, and, where students do attempt
to make notes, their attention is taken by this and they are less likely to contribute to the
discussion. Tutor recognition of the difficulties of note-making can lead to advice to
dispose with note-making - advice that they would not contemplate giving in a face-to-
face situation. Such advice can encourage students to think that nothing of reasonable
significance is likely to emerge from the discussion and so they discount it attitudinally,
or else they reject the tutor's judgement as lacking understanding of the student situation
and face almost inevitable frustration and irritation when they fail to record the
discussion adequately.

* * * * *

Evans (1989, p120) claimed that "because distance teaching is thought of as text, the
characteristics of text remain unproblematic, unquestioned and unchallenged, except in a
few instances". This discussion has attempted to explore a notion of distance education
that does scrutinise the role of the print text but adds the dimension of spoken utterance.
Hence, as this chapter has been developed, much of the discussion has separated written
pedagogy from oral pedagogy. However, there has been concern to indicate where
teaching and learning as a face-to-face experience have elements of divergence from teaching and learning through the medium of the telephone.

Selection of either an oral or written channel of communication in the academy commits the scholar to specific and limited kinds of relationship to the audience (Czubaroff, 1993, p3). The intellectual goals of the academic community vary and it appears that in some areas these are achieved more readily in print than in spoken language, while in others the converse is the case. Where, for instance, the emphases are on systematic and logical construction of argument with elaborate proofs, the control the academic author has in print material is far greater than in spoken utterance. Where numerical and visual data need consideration it is vital to hold these in print. Where, however, the intellectual goal of the academy is to challenge students and to encourage them to engage in active debate, to generate and test ideas, to probe implications, it would seem probable that this will be accommodated more fully by the tele- and face-to-face tutorial. Whether the resultant interaction can be termed 'meaningful' depends on the interactants as well as the technologies they employ to support that interaction.
Chapter 6

THE TELETUTORIALS: DATA FOR THE THEMES

"It is a strange feeling to sit with a phone tightly pressed against your ear, 'hanging' on every spoken word." (Claire, postgraduate student, Social Sciences, Journal, 21.3.90)

The purpose of this chapter is to conflate the findings from the research data to draw conclusions about the perceived value of teletutorials. Although there is recognition and appreciation of the qualified nature of both these data and their interpretation, they offer their contribution to our understanding of the teletutorial. The structure of this section is a consideration of the main advantages and disadvantages* of audioteleconferencing that have emerged from the literature. Hence these findings are related closely to what relevant scholars have concluded.

SECTION 1: PERCEIVED ADVANTAGES

TO FACILITATE INTERACTION

Conventionally, distance educators have interpreted interaction as spoken language exchange in seminars and tutorials. Such interaction naturally includes conversation among students as well as with appropriate academic staff, and these are considered separately. As off-campus education normally precludes such opportunities, "the lack of convenient and effective interaction for independent learners has always been a weakness of the industrial model of distance teaching" (Bates, 1991, p14). Hence,

* Although cost is generally considered a disadvantage (see, for instance, Bates, 1982), the issue of cost effectiveness requires detailed and informed discussion that is considered beyond the scope of this study. Some of the attendant complexities are discussed by Laurillard, 1993: see, especially, pp206-208. As Elton et al (1979, p62) wrote:

Clearly the cost of a single student who fails to complete his [sic] degree is greater than the total cost of the [support] service, which gives an indication of the potential financial benefit of the service. Its benefits in human terms for such a student are of course literally incalculable.
audioteleconferencing is seen as a significant way in which interaction can be facilitated for students who do not have face-to-face contact. Although, as discussed above (see Chapter 5) it is reductionist to restrict interaction to the overt and interpersonal, and unrevealed interaction should not be discounted, this discussion - in the spirit of most of the distance education literature - has been limited to spoken interaction.

Since the time of Pericles it has been argued that one of the best ways to learn is by active participation (Grint, 1992, p148). The desirability of interaction in teaching and learning is consistently stressed. Talk is an "integral part of learning" (Brubacher et al, 1990. pvi); "an instructional environment has to be an interactive environment" (Hefzallah, 1990, p37). The following comment from Braucher (1983, p72) typifies the thrust of the argument:

If any technology is to be effective in teaching ... it should permit interaction. We believe it is the interaction itself which instructs.

Although much of the literature sees interaction in undefined terms and does not specify its relationship with learning, there are some useful instances where the writers have gone beyond assumptions. Some scholars have focussed particularly on the importance of oral communication. For instance:

The way into ideas, the way of making ideas truly one's own, is to be able to think them through, and the best way to do this for most people is to talk them through. Thus talking is not merely a way of conveying existing ideas to others; it is also a way by which we explore ideas, clarify them, and make them our own. Talking things over allows the sorting of ideas, and gives rapid and extensive practice towards the handling of ideas. (Marland, 1977, p129)

and

A university degree without the development of verbal skills is an incomplete degree. ... In three or more years students may produce top quality writing while their verbal capacities remain dormant. This is an entirely unsatisfactory situation because effective knowledge is communicable knowledge. Learning should involve a constant verbalising of new knowledge to gauge peer responses in an interactive process. Oral skills are fundamental to democratic participation and to the applied sharing of knowledge. (Prenzler, undated, p1)

Similarly, Morgan (1985, pp41, 45), in the context of the Open University experience, wrote:

We want students to go "beyond the information" presented, to apply knowledge to new situations, actively to construct meaning, and to build on their existing understandings and experiences so as to relate ideas and information together. ... A framework for dialogue ... is essential for the
majority of students. Without this unique contribution to student learning, the quality of students' learning and understanding are [sic] likely to suffer.

This research revealed Deakin tutors had similar concerns.

A university education should challenge students to think for themselves and develop a critical attitude. Part of the teaching method of a university should be to put students in situations where they have to articulate their ideas and defend them. This is the function of the tutorial. Without such experience external students are deprived of an essential part of the university experience. Telephone tutorials are at least some kind of substitute for the traditional tutorial. (Quoted in Gracc and Thompson, 1989, p18)

Neumann (1985, p293) claimed that interaction was a necessary element of problem solving, idea evolution and other group related tasks and was positively associated with participant satisfaction. In the context of using telephone connections for postgraduate study, Burge and Howard (1990, p52) articulated what they meant by 'interaction quality': "Students were expected to challenge each other in a supportive way to learn from each other's experience, to solve problems, to articulate critical analyses and interpretations of theoretical frameworks and to explore new concepts and principles for practice". In the same context, Garrison and Brook (1991, p53) contended that "teleconferencing is best used to facilitate dialogue, clarify meaning, share perceptions and validate knowledge". However, for Henri (1992, p118) the interaction of telephone conferencing is restricted, with a focus on content rather than process. She wrote:

Telephone conferencing in distance education imposes as many time limitations on interaction as does conventional, on-campus classroom work - the time limit on all encounters making it physically impossible for all the learners to have their say, and focusing the content of interaction on the subject matter, rather than on the learning process itself.

While I consider that Henri is unduly dismissive of audioteleconferencing and would question that it is this teleconferencing medium, of itself, that makes it "physically impossible for all the learners to have their say" - learners are not invariably restricted in utterance and do not necessarily focus on subject matter - Henri usefully points to the pedagogical significance of the interactivity, itself. Where I would take a different stance is that I do not regard discussion of subject matter and the development of cognitive and metacognitive skills as discrete.

Despite the enthusiasm with which the notion of interaction has tended to be greeted,

We are left with a generalized cultural expectation that participation ought to be pursued, contrasted with a generalized cultural reality that participation is more like a minority sport than a mass event: however much participation might be
good for you, many people appear to avoid it wherever possible. (Grint, 1992, p149)

With justification, then, Crawford (1991, p50) offered the caution that studies such as those by Beijer (1972), Blom (1986) and Potter (1982) showed a low demand for interaction.

When it is recognised that the majority of students enrolled in distance education in Australia live in metropolitan areas* and presumably could participate in some face-to-face sessions if this were a high priority, their decision to study without such interaction can be regarded as a deliberate choice, rather than one forced upon them by necessity. In Potter's (1982) study at Murdoch University, only 11% of the students surveyed supported audioconferencing and this gave a compelling indication to the researcher concerned of the "reluctance to interact on the part of the students" (p224). A study at Deakin University in 1991 revealed that only 7% of the off-campus students enrolled at what was then the main campus participated in any of the teletutorial programs offered.

Some indication of why students reject the opportunity to become involved with teletutorials is provided from the data of the second minor case study (see Chapter 4). Those MBA students who had chosen not to participate in the teletutorial program were contacted by questionnaire. For a substantial number the reason given was that they already had access to face-to-face tutorials, so in these instances it is less likely that non-involvement was posited on a desire to evade interaction. In the vast majority of cases practical concerns had mitigated against involvement, reinforcing the contention (see Chapter 5) that the typical student has to fit study within and around numerous competing priorities. Perhaps not surprisingly, no student was prepared to reveal that non-involvement was for reasons that the university would consider of questionable validity.

Yet, as discussed above (see Chapter 5), if it is idealised and unreal to view tertiary education (even when face-to-face) as premised on meaningful interaction, it is equally

* A survey of Deakin University on- and off-campus students (1993: n=6563) indicated that 39.2% lived within 25 km of a capital city; 11.5% between 26 and 50km; 6.5% between 51 and 75km; 10.7% between 76 and 100km. 32.1% lived more than 100km from a capital city. While these statistics support the contention of access to metropolitan areas for the majority of students, it should be realised that not all university campuses are situated in capital cities. Deakin University, for instance, has two regional campuses. Hence, the proximity factor is but partially revealed here as the location has been restricted to a state capital city.
'mythical' to assume a desire for spoken interaction on the part of all students. Indisputably many students (most particularly at undergraduate level) adopt a minimalist strategy and where small group discussion leaves the student vulnerable to exposure in terms of how little of the course is being studied, it is not surprising that opportunities for intellectual discussion (both on- and off-campus) are evaded. As one lecturer said, '[they're] too scared to parade their own ignorance and minimal work and you'll never get them to confess this' (Thompson, 1990, p225). Cragg (1991, p50) referred to one respondent who "said she liked her own ideas and didn't have the patience to listen to others". Similar closed minds and an inability or unwillingness to engage with others were occasionally encountered in this study. Another consideration is that many students who have not had the opportunity to participate in effective small group discussion are not really in a position to appreciate what they have missed. One of the most memorable interviews of this study concerned a student in a remote part of Tasmania. Initially she had thought she would not participate in the programme as she did not perceive it would be of much personal value as her results were consistently well above average. After the first teletutorial, she found that direct spoken contact with her lecturer and her peers opened a significant new dimension to tertiary study. In her case her pleasure in the teletutorial was in direct proportion to the bitterness and sense of betrayal she felt because, in her final year of undergraduate study, so much of her tertiary experience had lacked this sort of interaction.

While there is, then, appreciation that a desire for spoken interaction is not a prerequisite of enrolment in tertiary study, it should be appreciated that these data (with the exception of the small group of MBA students in the second minor case study referred to above) are drawn from students who chose to participate in teletutorials. Hence they cannot reflect the perceptions of all distance students.

* * * * *

Although occasionally students indicated that they thought the aim of the teletutorials was to provide a lecture, the fact that in most instances they indicated that this aim was met inadequately indicated that it was the rare tutor who offered a lecture or resorted to a monologue. For most tutors there is a recognition that the course materials in many ways are a 'lecture in print' and that the audioconference serves as a tutorial, with spoken interactivity therefore a fundamental premise.

In questionnaire responses as well as in interviews, students indicated that an important motivation for, and expectation of, their involvement in teletutorials was interaction.
There were many comments that indicated appreciation of the opportunity to speak directly with mentors and peers and the value this was for their study. Indeed, this interaction with people supported interaction with the course itself. There was general recognition that a 'wider link up' enriched learning with different perspectives helping to broaden outlook. At the same time, a commonly expressed viewpoint was that the teletutorials had special value in bringing together people with similar interests for the sharing of ideas. As one student wrote:

Neither work colleagues nor family, unless they have first hand experience of the programme, can fully understand or provide adequate support at those times when you are about two assignments behind and you have not got a clue what the Study Guide is talking about! In my view, therefore, ... teleconferences are vital. (Michael, postgraduate student, Commerce, Fax, 22.7.91)

A second postgraduate student wrote:

Working as one of two dietitians whom I have little dialogue with - job therefore very isolated - linking with professional peers important - also other INTELLIGENT people who share a common interest. (Susan, postgraduate student, Health and Behavioural Sciences, Questionnaire, 1991)

and a third:

Initially I thought it would be confusing and unproductive. However, the teletutorials were wonderful. I was left feeling that I was getting individual attention, that someone cared about my progress, and it helped to see how others were going. It allowed for clarification of issues. I don't think I would have kept going without it. (Elizabeth, postgraduate student, Nursing, Questionnaire, 1990.)

At the beginning of her tertiary study, another student from the Faculty of Nursing wrote:

First year students need all the help they can get I feel. This nursing course is so much to do with locating ourselves within the discipline of nursing and communication, and teletuts blend in well with that theme. As students, as nurses, we can speak together and the teletut provides the perfect linkup. (Sue, undergraduate student, Nursing, Journal, 23.5.90)

However, a few students expressed very different views as typified by the following comment:

I see little value in 'teletutorials'. The information in the Study Guides plus further references ought to be sufficient for study. It may occasionally be useful to phone a tutor or a lecturer, but sharing the time with other students seems pointless. The telephone is an awkward communication medium, and suitable only for narrative communications. I am happier with either face-to-face group contact or a book. (David, postgraduate student, Commerce, Questionnaire, 1989)
While in the literature there seems consensus about the desirability of spoken interaction and a sense of what this will contribute to teaching and learning, there seems less appreciation of what this means for the students who are so 'challenged'. Responding to in-text invitations and presenting written assignments, students are not placed in the position of having their ideas challenged orally with the expectation of an immediate answer. This is a very different situation from the tutorial where there is likely to be overt pressure to generate response. For students this can cause embarrassment and a sense of intimidation.

A journal comment gives some insight into how forced interaction can feel for a teletutorial student:

The only time I felt a bit intimidated was when 3 of us said, "I agree", to someone else's statement and Bev said, "Come on this is academia, you can't just say, I agree, you have to say why". Then there was stunning silence but she didn't single anyone out so it wasn't too bad. (Anne, undergraduate student, Nursing, Journal, 4.4.90)

Referring to the same incident in the interview, she made similar points in similar language, but added "And that was a bit hard, but, no, I expected that kind of thing". While she expected to be "put on the spot", she stated that she didn't like that and felt that she would have been embarrassed and intimidated had she been nominated to comment as all she could probably have said would have been "I agree, but I can't sort of think now why I agree" (Anne, undergraduate student, Interview, Nursing, 6.4.90). The "can't sort of think now why" is a clearly different experience from the written response where there is time to shape a reflection. In the final teletutorial the same student was directly questioned and had to admit that she was "a bit stumped" and, when pressed for a response, had to expose her lack of understanding: "Oh, well, I can't quite answer that" (Teletutorial 3, Round 3, Nursing, 22.5.90).

It seems reasonable to conclude that there will be some connection between academic ability and the style of oral response. In Anne's case her final result (Credit: 64) indicated that she was an 'average' student in this subject. As a comparison, I have drawn on the journal entries of a postgraduate teletutorial student who gained a Distinction (77) in the subject she is writing about and received either Distinctions or High Distinctions (80 plus) for her entire course, with one Credit (60 plus). After her first two teletutorials she wrote:

I still feel very anxious when asked to speak or give an opinion; my heart beats so loud and fast that it is very difficult to concentrate on what I have said. I don't seem to recover very quickly so I miss what is said immediately following. In addition, I find that my emotions tend to take over which means I
say things which don't always convey what I mean. Then to top it off, I don't feel capable of correcting what I have said.

My concentration [sic] is improving - I hope - and I'm managing to take some notes as I listen. I still feel ill-at-ease when I talk and as a result I don't always say what I mean or I forget things I want to say. However, my heart did not beat quite as fast or as loudly as it did during the first few teletutorials. (Claire, postgraduate student, Social Sciences, Journal, 12.3.90)

Three months later, at the end of the semester, she wrote:

The teletuts do have their negative aspects such as, they rely on the participants to indicate how they feel, what their concerns may be, and whether they want to join in the interaction. Most of the time I would rather listen than participate to reduce my embarrassment when I become tongue tied. It seems an odd thing to feel embarrassed when no-one can see your face but no-one likes to feel 'inadequate' regardless of whether it is a direct or indirect sensation. ... I have felt ill at ease when I have needed to express my comprehension of the course or matters pertaining to the content. This does not mean I have not understood the material in the course but that I have not felt confident with expressing my understanding in an academic manner. Moreover, I like to 'warm' to my environment which takes time. There is a sense [sic] with the teletuts that I must 'think on my feet' about a whole range of human experiences as discussions are so varied. My usual reaction is to sit back and absorb what is being discussed before launching into unfamiliar territory. (Claire, postgraduate student, Social Sciences, Journal, 4.6.90)

While this student's journal indicates that experience is likely to reduce nervousness - "my heart did not beat quite as fast or as loud" - this does not necessarily mean that even students who have experienced several teletutorials, who have understood the material, and can articulate ideas, will feel "at ease" with the interaction of the teletutorial. Where, as in this case, a previous session has caused some embarrassment for there had been limited preparation and the set material had proved difficult, then the nervousness is even more pronounced:

The phone ringing always makes me jump! Tonight I felt I was far from prepared. I really struggled to keep up with what was being discussed. Most of the time I felt like I was missing the point but did not feel comfortable in asking for clarification (as usual). ... I should have kept quiet tonight! Instead of admitting I was not following the conversation I tried to give an 'intelligent' response through the personal examples exercise and only succeeded in talking about something that was not relevant to the discussion. Oh well!! (Claire, postgraduate student, Social Sciences, Journal, 9.4.90)

However, later in the semester the student has become to feel "a little more comfortable" with who she is. Having experienced an occasion where she assumed an academic stance and felt that she had failed publicly, she has come to terms with expressing her true feelings and using her own voice.
This week I’m feeling even more concerned because I couldn’t make head nor tail of the readings - there will be no attempt at pretence tonight. ... I had to confess my lack of understanding of the readings but received some good advice from the other students which came across as very supportive. (Claire, postgraduate student, Social Sciences, Journal, 23.4.90)

I endeavoured to allow myself to converse as I would normally rather than trying to use language which I am not familiar with (which always fails miserably). (Claire, postgraduate student, Social Sciences, Journal, 21.5.90)

Hence, although her results indicate that she is an 'above average' student, these revealing comments indicate considerable self-doubt and pressure. There is a sense that academic discourse demands a higher order level of conversational skills and there is considerable concern to be seen by mentors and peers to be performing at least adequately. So much of what is written about interaction seems premised on articulate, able students who are not only responsive, but also open and honest in their statements. Yet the reality is often inarticulate, struggling students who opt for the security of reticence, or conceal their lack of understanding by "pretence".

Hence it is understandable that students indicated that teletutorials would be made less stressful if tutors did not 'target' individual students who could well be unprepared or unconfident. However, for many tutors there is concern to involve reticent students and the common strategy is to ask such students direct questions. Often their responses are clumsy and awkward and reinforce their sense of inadequacy, so compounding an already difficult situation. A group of MBA students, confronted with the situation that their group was assessed as a whole for group tasks undertaken mainly through teletutorials, tried to resolve the problem of reticent students by saying, "No contribution. No marks". Feeling uncomfortable with that, they successfully modified it in response to reality by developing structures that would ensure the participation of everyone in the group: eg alternating the roles of chairing, introducing issues and being first respondent. In the final analysis, however, the interview with these students revealed that it was the developing of group cohesiveness that was the critical factor: "One of the reasons that we all contribute to the teleconferences is that we’re not about to let our mates down. That’s true." (Postgraduate students, Commerce, Interview, 15.10.91). Further, while tutors expressed dissatisfaction with students who occasionally or rarely spoke, interviews with reticent students often indicated high levels of satisfaction with the session. Although there may be some concern that they had not gained the most possible from the teletutorials by spoken participation, this is not to deny their interaction with the ideas presented.
At the opposite end of the spectrum is the dominant student. Students expressed dissatisfaction when individuals "tended to hog the stage" (Hilary, undergraduate student, Social Sciences, Questionnaire, 1988) and were intolerant when queries from individual students consumed what they considered to be inordinate time. As revealed in the first major case study (see Chapter 7), some students deliberately constrained their contribution and chose silence from concern that they could be regarded as unduly dominating the discussion. Although it is reasonable to advise tutors that they should not allow one or a few students to monopolise the conversation (Thompson, 1989, p.15), there were occasions when the discourse of articulate and able students was abruptly terminated by tutors and replaced by awkward gaps with the momentum of the exchange forfeited. Some of the restrained students interpreted this as rejection and withdrew from active interaction, while some of the students who had been forced into active interaction resented the attempt. Grimwade (1984b, p.50), responsive to an implied need for even involvement, advised teletutors to seek equality in participation over several sessions. While this research suggests it is unlikely that even the most determined tutor will achieve such aim - and I would contend that such an aim is not only unrealisable but it is also unreasonable - certainly tutors who aim for equality for all in each session will almost inevitably be disappointed and frustrated and their efforts to manage the discourse to achieve this end are very likely to be counter-productive.

It appears then that from the students' point of view interaction can be stressful, but a dilemma for tutors is that through this experience learning can result. As one student wrote:

The biggest advantage of verbal participation is that it slowly teaches one how to verbalise opinions and think on one's feet effectively. ([This] takes time though for the shyer student!) (Glenda, postgraduate student, Health Sciences, Questionnaire, 1991)

Another quite vocal student, concerned that "non-contributors or minimal contributors should be encouraged to speak up" stressed that it was "really important to get this experience".

Because you're actually sort of listening to yourself and I think that you're learning a lot about yourself. You're hearing yourself sort of speak; you're hearing yourself - you're hearing your own ideas that perhaps you hadn't sort of realised were actually sort of there; and you're learning so much about yourself that in the course of the work that has to be, that the whole sort of reason for studying is all about, that is dealing with - working with - community - working with the people in the community - that unless you really know a lot about yourself, the more sensitive work cannot be really accomplished satisfactorily. So I think the system actually teaches you a lot about your own sort of values and for me it actually has been very positive in that I sort of realise that I actually, that I have a slightly improved eloquence over and above what I
thought I had, just with exposure to this sort of system. (Janet, postgraduate student, Health Sciences, Interview, 31.7.91)

In Claire's case (cited above) the experience of talking with her lecturer and peers gave her greater confidence to be herself, rather than to adopt a stance that she perceived as desirable. Another student, Sue, wrote:

I felt really nervous, and tried to express a few ideas, but failed as I didn't back up ideas with sound argument. I learnt from that experience. (Sue, undergraduate student, Nursing Journal, 4.3.90)

Even where students confessed to feeling intimidated and stated the experience was unpleasant, this did not have an inevitable consequence that they would dismiss the experience as unnecessary or unhelpful.

Teletutorials are necessary I think to make contact in view of the course being external. The discussions certainly gave me food for thought. Sometimes I felt intimidated but often studying with others provokes intimidation in me so the experience wasn't especially new - just unpleasant. (Elaine, postgraduate student, Nursing, Questionnaire, 1990.)

Another student who clearly valued the interaction in terms of learning said:

... for some reason I don't sort of sometimes have the sort of confidence to accept that I actually have understood something immediately. It's obviously got a lot to do with my personality and perhaps the way I was taught years and years ago. ... I just can't quite work it out but sometimes I have to ask for verification - that it's the way it was intended. Once it's agreed that that's the point, it seems to be an enormous milestone for me and I can actually sort of build a lot of other information around it. (Janet, postgraduate student, Health Sciences, Interview, 30.7.91)

and

[Without the audioteleconference] my learning would have been more superficial because I do rely on the sort of comments and attitudes of other people in order to endorse a lot of the concepts I'm trying to grasp and accept. (Janet, postgraduate student, Health Sciences, Interview, 24.9.91)

While the literature provides abundant evidence of satisfaction with the interactive element of audioteleconferencing, writers such as Austin (1982) and McDonell (1992) have taken the argument further, contending that generally the participation level was higher than might be found in a face-to-face setting. This study, also, found students who contended that this was the case. For instance:

The satisfaction and interaction is far greater in this group than it was [in a face-to-face study group attended] and I think it's because we've got more commitment. It's a function not of the people who make up the group, but a
function of the fact that we acquire so much out of the teleconference. (Bruce, postgraduate student, Commerce, Interview, 15.10.91)

Others, however, have been less confident:

Justification for significant investments in the development of sophisticated infrastructure to support telelearning initiatives, is usually based on the perceived pedagogical value of "advanced interactive delivery". The proponents of Telelearning typically tout continuous interaction as the major benefit of this type of technology. The assumption that interactive delivery automatically engenders effective teaching and learning is often accepted without much critical scrutiny. (Taylor, 1991, pp4-5)

Yet interactivity is neither an intrinsic nor a natural feature of the technology. While the teleconferencing technologies can provide opportunities for interaction to occur, providing there are no technical impediments, the extent and value of that interaction are people-driven. Tutorials were described by one academic as "lectures with a pretence for Socratic dialogue". He considered that the energy required to stimulate "real" interaction was simply not worth it - he was not prepared to "massage students into contributing". In this instance the medium was not significant: his authoritarian style and patronising attitude were the determinants (Thompson, 1991b, p289). Even where tutors have articulated a theory of pedagogy that stresses collegial learning, negotiation and encouragement to stimulate independent thought, their teletutorials can reveal a didactic lecturing approach based on instruction and information, dismissal and ignoring of students' viewpoints and a domination of both process and content. The outrage of one student is clearly expressed in the following written comment:

I left this particular teleconference 'fuming'! Having offered quite a lengthy original viewpoint on how I saw the exercise I was treated as if hysterical and told to refer back to the section on 'burn out'. The whole incident epitomised the futility of offering anything other than what the lecturers 'want to hear' on this course. My viewpoint was shared by others, yet simply disregarded/left unanswered by Gill [tutor] who obviously found it way out of line with what I was 'supposed' to say - and what she wanted to hear. Later Mandy [tutor] and Douglas [tutor] both made reference to my input - hence the 'hysterical' comment. The opportunity was there for a really good debate with personal opinion being expressed quite frankly and openly. The 'teleconference' distancing agent didn't help things. (Patricia, postgraduate student, Health Sciences, Journal, 22.10.1991)

Another student wrote:

Gill [tutor] sounds unsure of herself and comes across as rigid. She cut in on someone after asking her to share her idea of her social change project. Bad, bad, bad. Especially when we're supposed to be hearing each other out. (Linda, postgraduate student, Health Sciences, Questionnaire, 1991)
The student had correctly perceived the tutor's insecurity. New to this form of teaching, the tutor concerned wrote in her journal that at the start of the program she felt "absolutely terrified". Even after some experience she felt "awkward still". With experience she became far more relaxed and confident and this had a positive effect on how she "chaired" sessions and interacted.

I'm feeling more confident all the time. I even thought fast enough to get some other input on the stereotype on Maori people that was given. (Gillian, tutor, Health Sciences, Journal, 27.8.91)

Many similar cases indicate that the success of the interaction for all participants is closely tied to the sense of comfort the tutor has with the medium and that this is usually associated with experience.

Despite the importance of experience, some attitudes appear to be entrenched. Kirby and Chugh (1992, p36) concluded that their data revealed two types of instructors: one "more sensitive to the nature of this form of mediated instruction [who paid] more attention to both the practical factors related to it and the skills required to use it effectively"; the other who appeared to be "firmly embedded in a traditional paradigm of instruction". This research also indicates that many tutors are concerned to understand the implications of telephone-mediated discourse and adapt their pedagogy. For others, however, there is little appreciation of the audio-only channel of communication, yet alone a desire to utilise its capacity for meaningful spoken interaction.

The level of satisfaction with the interaction is affected not only by the quality of what is said but also by the length and style of the utterance. First, quality.

As discussed in Chapter 7, the perceived value of what is said depends on what priorities for discussion are held. Where different agendas operate and there are many participants it is less likely that there will be a shared sense of satisfaction. For most students the greatest value of the interaction is to support assessable tasks; for most tutors the greatest value is to discuss key course concepts and engage with theoretical underpinnings of practice. Hence the data revealed that students often judged highly what tutors judged as inadequate and vice versa. To illustrate this point the third audiotaped session from the data of the second major case study has been selected. Reflecting on this session the tutor said:

Our objectives for that session have tended to start getting bogged down in the trivia of assignments, getting back, and stuff like that, so, in fact, we got off to a very bad start on that sort of issue and, um -

Just before you get off that, why do you consider that's a 'bad start'?
I suppose it wasn't what we planned. (laughs) You're right. It's a good question. It met the students' concerns, I suppose, the concerns that were uppermost. But of course we wanted them to start talking about their preparation work, and how well they're enjoying it, but they kept coming back with all this stuff about assignments and getting them back...

[AFTER THAT] it went, very much, you know, according to plan. They seemed to be responding quite well to the, you know, course material and everything now, but in terms of my major overall objectives for the session, which, I guess was to get them to focus on a pretty-large-scale issue - Up to that stage we'd been dealing with more specific sort of problems, and they really needed a bit of a leap in the imagination. ... I got a bit frustrated because they were tending to - in the small group discussions that were coming back, there were feelings of hopelessness, and "What can we do about these sorts of things?" Problems like discrimination, they seem to feel they are quite outside their capacity to do anything about, and so they weren't really getting the theoretical points I was hoping that they'd get - you know, about the structural nature of racism and sexism and ageism and so on, the importance of having an explanation, for they were tending to respond pretty much at the superficial level. ... I was a bit disappointed in their inability to do the structural analysis, which was my main objective for the session. (Douglas, tutor, Health Sciences, Interview, 27.10.91)

The interview made it clear that there was satisfaction with the amount of interaction - with the students' "willingness to contribute ideas". Although analysis of the session reveals consistent extended gaps, the tutor's assessment was "They were certainly very good at that. They've adapted to that very well and speak quite freely". The problem for him was the 'level' of the analysis for he believed the students "tended to get stuck very much on the initial [basic] thing", "to react on the descriptive level". Concerned with "their lack of development", the tutor tried to "force the issue", "push them a bit further", "lead them back to the theory", but found that the active earlier contribution was lost - "the reaction was pretty passive".

The student reaction (as evidenced by questionnaire ratings, comments and the journal entries) was very different. They considered that the discussion had been lively and informed - that people were "more inspired to talk spontaneously than before" (Jennifer, postgraduate student, Health Sciences, Questionnaire, 1991). One of the other tutors believed that "because the students felt more strongly about the issues" there were "people whose voices we hadn't heard", although she shared with Douglas the sense that "what they were coming up with was somewhat superficial and simplistic" (Gill, tutor, Health Sciences, Interview, 27.10.91). With the student informant for this group who considered that this discussion was "less superficial than before", I sought a reaction to the tutor's sense that students remained on the experiential level, rather than engage with the more analytical processes of the course. She replied:
That's one of the criticisms I've got of the system, that none of us seem to be sort of capable of getting down to that sort of level. Um, that, yes, the comments still seemed to be, because they're sort of spontaneous and because of the teleconferencing medium, that we never get down to the nitty-gritty. But that last - the last sort of session - um, sort of had a slightly deeper level than previous sessions. (Janet, postgraduate student, Health Sciences, Interview, 30.10.91)

While her perception was, in some ways, the opposite of the tutors' - less as against more superficial - her sense that the discourse failed to engage in truly intellectual issues ("we never get down to the nitty-gritty") was very similar to theirs and a different perception from her peers. This is partly attributable to her own sense that, at the age of 47, she has greater maturity and personal development - "some of their points of view were as perhaps I would have seen them twenty years ago". Yet, while her result (79: B+) evidences ability, of the 46 assessed students she ranked 20. Hence, although the tutor was dissatisfied with the superficiality of the engagement with academic issues in the spoken teleconference, there was obviously a much higher degree of satisfaction with the two written assignments and the examination for there were 19 A results (80% +), with 64% the lowest result.

Where the discourse consists of lengthy monologues that may be either tutor information or students reporting, then the 'to and fro' thrust of lively discussion is forfeited: "Many words about nothing" (Denise, postgraduate student, Health Sciences, Journal, 16.7.91). In many instances, where students have been unwilling to participate - and often this is due to inadequate preparation and/or inadequate indication of possible or probable areas that will be covered in the session - the tutor has resorted to a monologue. "It was more like a lecture than a group discussion. No-one had any specific problems so the tutor gave an overview of the course at the students' request" (Gerald, postgraduate student, Commerce, Questionnaire, 1989). Certainly where student reports are simply met with "Thanks", with an occasional addition of a remark such as "That's really good", students are not given any indication of the qualities - if, indeed, any are recognised - that have led to the differentiation in evaluation. When obviously highly variable responses are acknowledged only with an inclusive "Thank you very much for all those interesting comments" and there is no attempt to build on what has been reported then the interaction is limited in pedagogical value. As one student who had experienced this style of teletutoring wrote:

I feel that follow up comments are not quick enough - often left 'in space' - not very much acknowledgement of our views. Sometimes a perfunctory "That's good" but not a real comment and follow on for someone else to pick up on. (Heather, postgraduate student, Health Sciences, Questionnaire, 1991)
In contrast to the language of the printed study materials, students sometimes found that the spoken language of the academic staff in the teletutorials was discernibly different. As discussed later (see Chapter 7), Nursing students contrasted the esoteric and erudite academic language of the *Study Guide* - "so way up in the air" - with the "very down to earth" discourse of the teletutorial. Here the language of the teletutorial was welcomed and seen as preferable. Conversely, in another situation, the language of the teletutorial was judged negatively:

... it sort of seemed that Douglas [tutor] wasn't quite sure of what was expected of himself, and so he seemed to talk for a long, long time and sort of in a circumlocutory sort of way that seemed to exasperate a lot of people and probably disappointed a lot of people at first, because when one reads his writing he's terribly informative and stimulating, and yet he sort of doesn't actually speak in a similar type of style. (Janet, postgraduate student, Health Sciences, Interview, 24.9.91)

In the teletutorial the speed of the utterance, as well as the voice itself, influences response. So:

Mandy [tutor] speaks too fast to write notes down let alone write sense. (Denise, postgraduate student, Health Sciences, Journal, 22.10.91)

Douglas [tutor] has a very 'soothing' voice and I find it difficult to concentrate for long periods. (Susan, postgraduate student, Health Sciences, Questionnaire, 1991)

[Named guest tutor] - his voice is too soft and seems to wax and wane. (Lorraine, postgraduate student, Health Sciences, Journal, 16.7.91)

On some occasions it becomes apparent that the spoken dialogue is essentially a reading of what has already been prepared. As discussed in Chapter 5, the cadences of written and spoken language are distinctive and such material that reads well when visually seen is often too dense lexically to be communicated effectively orally. The general result is a 'turning-off' and boredom as there is a recognition that the life and spontaneity of the language exchange have been abandoned. One Social Sciences tutor, who was especially concerned by the dearth of comment after students had presented five minute prepared 'papers', sought my advice. We decided to experiment with students preparing set issues but then presenting the critical questions (rather than the answers) to the group. This strategy stimulated lively discussion and has been used successfully by several other tutors in a range of disciplines.

A further factor that influences spoken interaction is the number of participants. Edison-Swift (1983, p121) could describe as "really quite remarkable" the "large amount of interaction" that occurred; yet at both the teleconferences he studied there were over 600
participants. At Deakin University the optimum number for successful interactive audioteleconferencing is set between seven and ten, and this number was ascertained after extensive monitoring of teletutorials and information from participants. Such extremist views suggest that notions about quality interaction differ.

It was surmised that a significant difference between the models of audioteleconferencing used at the different universities of the major case studies was that the very different numbers linked for the national teletutorial would influence the interaction. Students researched in the second case study were asked to compare their model where small regional groups met individually and then were linked nationally as one large group of approximately 50. As there are several variables involved here, with face-to-face encounters in the regional study groups and the absence of tutor presence for all but the 'home' group being two of the most significant (both of which are discussed below), it is important to note that group size was but one determinant.

Contemplating the Deakin model, one student surmised that the lower numbers would lead necessarily to everyone contributing while the larger numbers of the model she was accustomed to meant "those who are not confident with speaking can get away with not touching the speaker [ie the microphone] in larger locations" (Carole, postgraduate student, Health Sciences, Questionnaire, 1991). While the Deakin teletutorials had many instances of student reticence, Carole's perception that it was far more difficult to "get away with" not contributing when the numbers are low is valid. However, even within the regional study groups there was some concern that the numbers were too high. For instance:

There are 11 in [our] group. This is too many for the off-air discussion as 2 or 3 dominate and the others don't get much to say even with a good facilitator trying to involve everyone. (Nancy, postgraduate student, Health Sciences, Questionnaire, 1991).

Another student, who had experienced a range of group size of 2, 3 and 10, considered that 10 was too high for the smaller number made it "much easier to listen, discuss ideas, concentrate and creates a better learning environment" (Sally, postgraduate student, Health Sciences, Questionnaire, 1991). Conversely, several students and tutors expressed concern that very small numbers were not only wasteful in terms of the resource of tutor time but also gave very limited peer contact and often led to disappointing discussion. Listening to such sessions leads me to support their conclusions.
When the session moved to the national network while there were occasional opportunities for any student at any location to contribute, the structure of the teletutorial sessions made it almost inevitable that only a few of the 50 student voices would be heard. Analysis of the tape-recorded sessions endorsed the views of several students that the same few people tended to contribute to the national teleconference. This was partly attributable to the designation of a student 'facilitator' who would act as spokesperson for each regional group, but also to the very extended passages of tutor lecture/reading that greatly reduced discussion time. Hence the pattern of the discourse was student report from some of the regional centres with minimal tutor comment and very rare student response, interspersed with extended tutor monologue on issues that the academic group had perceived were necessary to cover this way, despite the print package. A further restraining influence for several students was lack of confidence when communicating with a large and essentially unknown national audience. While Deakin University students tended to express excitement at being able to converse nationally and even internationally, for several New Zealand students the sense of the presence of "strangers" stifled involvement: "Conversation is not as free - tends to be a bit disjointed at times. I feel people are still afraid to voice their opinions to the whole group over the network" (Helen, postgraduate student, Health Sciences, Questionnaire, 1991) and "Some people feel confident talking in small groups but are not as keen on expressing their views nationally" (Sally, postgraduate student, Health Sciences, Questionnaire, 1991). However, one of the most consistently rated advantages of the teletutorials by both students and tutors was that they afforded opportunities to connect so many people across the entire country and so share a broad range of viewpoints and experiences. Listening to the sessions gave me a strong impression of very definite regional and cultural differences that coloured the discourse in a way that rarely emerged in the Australian case studies.

Bates (1991, p14) has similarly drawn attention to complexities and qualifiers when considering interaction:

It is even more important then that the interactive technologies are organised for relatively small groups, and that careful attention is given to structuring and moderating the interaction that takes place. Thus the new interactive technologies not only require sophisticated equipment and communications systems, but they also require highly skilled teachers, and in large numbers, if high levels of interactivity are to be maintained at a social level.

This research endorses Bates' views, arguing also that successful interaction is a product of a number of factors, and agreeing that one of these is the requirement for "highly skilled teachers". In their role as discipline experts, tutors are under pressure to
perform convincingly and communicate in such a way that they model the role of the 'academic', as they perceive it. As well as a demand for rigorous preparation of specific content areas, they have to have a thorough understanding of the entire unit to be able to respond effectively and immediately to a frequently unknown portfolio of demands. In their role as counsellors, tutors need to be sympathetic and sensitive as they respond to a whole range of student problems. In their role of mediator between the student and the university, they require a detailed understanding of the relevant administrative functions to be able to answer an inquiry or direct a student appropriately. As teletutors, there is a necessity for them to be able to handle basic technical equipment, and to be aware of the implications of teaching and learning through this medium. Tutors are as equally vulnerable to personal circumstances that can impact on their performance as are students. Tutors, too, have to control children and silence rowdy dogs and make themselves unpopular by turning off a favourite television program when they take their teletutorials at home in the evening and cannot justify the cost of childcare or the return travel to the campus.

While there is, therefore, recognition that the role of the tutor is indeed demanding, one area of responsibility that Bates seems not to have stressed in this instance is that of the students. While the technologies exist to facilitate the interaction, while the tutor orchestrates the discussion, it is the students who choose response or reticence. Lack of participation may have little to do with the tutor's stimulus or the student's ability. The student's reality, in itself, can militate against active involvement:

Having put in a full day teaching at secondary school, by the time 5.30 comes around I am often shattered, hence don't say or think as much as I would if I was less exhausted. (Alice, postgraduate student, Health Sciences, Questionnaire, 1991)

Having had numerous other tasks to do this day ... added to the stress of finding the caretaker, meant I missed some early statements. Consequently discussion not so free as usual. I'm still getting back into this method of learning having had one semester off. Don't feel really switched on to on-air discussions as yet. Also feeling deeply concerned as to whether I can manage work, study and motherhood. (Edna, postgraduate student, Health Sciences, Questionnaire, 1991)

Moreover, some students have deliberately restricted their involvement because they believe that they are simply helping weaker students and, in a competitive environment, they seem to find no moral dilemma in taking from others and giving little.

On several occasions in the second major case study, students in the protected environment of their regional groups were prepared to acknowledge that they had not
completed the set reading and where this was a necessary prelude to effective discussion
their lack of preparation precluded effective participation. Hence, successful interaction
depends not only on the willingness and ability of the tutor as facilitator, but also on the
students. The comments from one adult student who was considering this issue reveal
significant problem areas:

well, maybe it was because I was educated at the School of Home Science which
tended to be, it was a faculty which was much - in the ladder of liberalism it was
right at the bottom - we virtually never had, never were allowed to have our own
opinions. The course was all sort of set for us; we were forced to conform ...
and because I didn’t like the - I didn’t like that sort of way of being educated at
tertiary level, I deliberately took some other university subjects, but even so,
things were still tended to be more developed from a lecturer’s point of view
with minimal input from the class, but not to the same degree that I experienced
with the Home Science course. So I’m quite surprised when on this course,
with just how much the lecturer - how much sort of steering is expected by the
class in terms of the total development of the lessons - the course as such. I’m
delighted, but it takes a bit of time, even for me at forty-nine, to get used to it
and at first I sort of thought, "Oh, they're doing that because they know they
have to", but I’m starting to wake up to the fact that I'm starting to understand
more about an equally balanced format of teaching and how the lecturers are not
saying, "We know everything and this is what we think you should know" but
are saying, "We’ve got something to tell you, but we equally know you’ve got
something important to tell us" and I'm just getting used it. ... He [Douglas:
one of the tutors] seems to bend over backwards to encourage some input from
us and I think that the problem with the course - with his presentation just now -
is that people just haven’t got used to him. ... We’re not used to Douglas’s
style, I think.

How would you describe Douglas's style?
(Pause) He's offering less direction than perhaps [the previous tutor] did. He's
moved over to allow us to take up more room and at this stage we're not sort of
doing that. It's - he's encouraging a lot of participation and steerage from
the floor, so to speak, and he's not getting it and I think that he's in a wee bit of a
dilemma himself, actually. I can see what he's trying to do, I mean, when the
majority sort of pooh-poohed discussing the personal coats of arms that he
wanted each to fill out, I could see what he was trying to do. And he was
saying, this is a means whereby you could recognise your own values a lot more
clearly and he thought that was really important in relation to the sort of work
that we were doing. The [named study group] girls, you know, were really
quite adamant about the fact that they'd come there to learn. My position is sort
of perhaps half way between those two points of view. I can certainly see
what's he's doing and I would have gone along with it if the majority of the
class would have, but I sort of feel that he's still being a little bit tentative about
getting into the course. He still talks about, "You will be learning this" and I
thought to myself last night, "My God, and this is the second teleconference and
we're still talking about what we're ultimately going to learn, you know".
Maybe he's a bit unsure about the contents of this new course because, and he's
sort of looking for a bit of confidence and positive feedback too, and we're not
helping him! (Janet, postgraduate student, Health Sciences, Interview, 31.7.91)
The tutor was aware that the background students brought to their study was a significant determinant of their reaction. In response to the "anger" and "panic" that was especially expressed by the study group referred to by the student he said:

I think [the problem is] partly because we're hitting them in a very short time with a whole lot of material and also a whole totally new way of thinking. Many of them are coming from a sort of a Physical Science background and have worked in Nutrition and stuff like that so they - it's all new to them and they're feeling a bit I think. ... Some of them objected to some of the things they were asked to do in terms of looking at their own values and stuff. So this was a direct challenge to the whole ethos of what we are trying to do, you see. (Douglas, tutor, Health Sciences, Interview, 31.7.91)

and

... hitting people with the problem solving, sort of andragogical, self-directed learning methods that we try and use, always gets some resistance at the beginning of the course and people feel lost and threatened and upset because they're used to having lectures which they write down. (Douglas, tutor, Health Sciences, Interview, 24.9.91)

In this case the tutor perceived the role of the teletutorial was 'critical':

... the opportunity for feedback and everything probably helped settling down quite a lot because it was a very, very difficult course for them, and us, to come to terms with. It was so completely different from anything they'd done before and, you know, the ability of the teleconference to hasten the process. ... Their [the students'] ability to, in fact, say things, to develop ideas in their own groups and then to confront and challenge us about them, and to get our response, and to get immediate feedback has, in fact, been really critical. (Douglas, tutor, Health Sciences, Interview, 24.9.91)

In terms of the issue of the empowerment of respondents who are part of the research (see Chapter 3: section 3), it is apposite to note that this role of the teletutorial was initially unrecognised by the tutor. Accepting my point (which I stated had been derived from a student interview) that the teleconference had been significant in terms of changing attitudes because it gave students the chance to talk to one another and also with their tutors, rather than being individually frustrated, Douglas said in the interview that he found this "a very important, very cogent point - very true". In reviewing the transcript of the interview he added the comment that this was a "very important point" and that it had been influential in his thinking about teletutorials.

The role of the teletutorial as a forum for the expression of student dissatisfaction was discussed with the student informant for that group. On the one hand there was a sense that if the course had been entirely print-based and students had responded to this individually then much of the negativity towards the course would have remained unexpressed and it was possible that the dissatisfaction had been increased as students
reacted to the negative criticism of an "alien course" and rejection that dominated the early sessions. However, there was recognition also that the audio contact gave students the opportunity to express their feelings and to resolve problems that otherwise may not have surfaced and have led to a lot of frustration. While the main tutor considered resolution was an almost inevitable consequence of the students coming to terms with the pedagogy of the course, student comment and analysis of the tape-recorded sessions suggest that the tutors did adapt and modify to attempt to accommodate student wishes. To one student

... one of the advantages of the teletutorial is that if the producers are prepared to let the students steer, then the students, in the end, get the course that they want. This is one of the things that's happened with this course, I feel. (Janet, postgraduate student, Health Sciences, Interview, 24.9.91)

The above discussion reveals that satisfactory interaction is dependent not only on many contextual factors but also on the individual values held by the participants. Such qualitative data assist in interpreting the quantitative data that was gathered on this aspect of audioteleconferencing.

After an initial study of 35 Social Sciences teletutorial students, it was concluded (see Grace and Thompson, 1989, p19) that spoken interactivity (as assessed by the response to the question regarding the extent to which the teletutorial had value in stimulating an exchange of views/information) was an area where a significant number were left unsatisfied and it was the area of greatest student discontent. After a further 104 responses had been analysed, with students from a range of disciplines and at two universities, the conclusion was identical. In the initial study 22.3% used "Inadequate" and 6.6% "Very Poor" with the aggregated study offering 15.0% and 4.5% respectively - again the area of greatest discontent. While it is contended that these data reflect significant disenchantment, this is not to deny that most students expressed satisfaction. In the aggregated study, 22.8% judged the interaction as "Excellent", 28.3% as "Good" with a further 27.8% rating it as "Adequate". With a 1.6% non-response, this means that 78.9% were reasonably satisfied with the level of exchange of views/information.

Further indexes of interaction are the extent of satisfaction with answering specific queries and in clarifying course requirements and concepts. The table below indicates again that there was some disaffection but it is less marked, with each category showing an 83+% level of satisfaction and the "Inadequate"/"Very Poor" ratings dropping considerably, with one exception: "Specific queries" where 3.9% (as compared with 4.5%) gave a "Very Poor" rating.
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Table 6.1

(EXCELL = Excellent; GOOD = Good; ADEQ = Adequate; INADEQ = Inadequate; V POOR = Very Poor; NA/NR = Not Applicable/No Response.)

[\(n=180\)]

As Nursing represented one of the major case studies of this dissertation, it is interesting to note that in each of these four indexes of students' perceptions of the value of issues that relate to interaction Nursing responses are atypically positive: 70% and 60% ratings of "Excellent" (see Appendix Id) with only one of the ten respondents on one occasion ("Exchange of views/information") indicating dissatisfaction. In the case of the second major case study, the students were less positive in their assessments, with only 5% to 8.5% considering specific questions, course requirements and course concepts had been covered in an 'Excellent' manner and 18.6% when exchange of views/information was concerned. At the other end of the scale, 'Very Poor' was used between 5 and 6.8% of the times and 'Inadequate' from 6.8 to 15.3% ("Responding to specific queries"). While there was a greater likelihood for these students to nominate 'Good' than 'Adequate', these data (admittedly with much greater numbers - 59 as compared with 10 - and over 3 sessions instead of 1) are in marked contrast to the first major case study and consistently do not compare favourably with the aggregated data of 2160 responses. It should be noted, however, that satisfaction with the interaction varied, steadily increasing as the program developed, and the qualitative data cited above give a clear indication why this trend emerged.

TO PROVIDE OPPORTUNITIES FOR PEER LEARNING

Cazden (1988, p150, 153) wrote:

Any classroom contains two interpenetrating worlds: the official world of the teacher's agenda, and the unofficial world of the peer culture. Most educational research is interested only in the first, and implicitly assumes the perspective of the teacher. ... Whether as teachers or as researchers, we should not consider students only as filling the second slot in IRE sequences, thereby enacting a particular structure of classroom discourse and providing utterances that fill out the thematic content of a lesson.
The technical implications of the audioteleconferencing medium mean that peer interaction is far more controlled and hence limited than in a face-to-face situation. Hence, the sorts of 'asides' that Lemke (1985, 1990), for example, found so rewarding to study and which customarily go unnoticed or are ignored, do not exist. Nor is there the unofficial and generally uncondoned (both from an institutional and teaching perspective) peer interaction that is a normal constituent of most classroom practice. In these teletutorials the peer interaction was both controlled and constrained by the medium as well as the tutor and culture.

Peer learning should be separated from peer teaching. If 'peer' is defined as being of equal rank, the peer teacher, as reported in studies such as by De Volder et al (1985) is not, strictly speaking, a peer: in that instance fourth year students "were allowed to function as tutors in the first year" (p646). Not only is there an important difference in academic experience and status, but the role is faculty assigned, in direct contrast to the emergent leadership that students in the same course can assume. Further, in that instance, at least, a financial incentive was stressed: "... it should perhaps be underlined that peer teaching represents one of the few instructional innovations which does not call for an immediate additional investment" (p644). Conversely, here providing opportunities for peer learning through teletutorials necessitated expenditure. Even where tutors were not directly involved there was no expectation that any nominated student would 'teach' the others. Rather, there was a sense that the teletutorial could usefully provide opportunities for students to meet as equals to explore particular issues and aspects of the course. Generally students of the same academic rank (although not necessarily with the same academic credentials, the same age, ability etc) on the basis that they were enrolled in the same course of study were given opportunities to learn from one another as well as from the tutor.

The peer learning process is an important dimension which has often been missing in distance education courses, a dimension which can be accommodated by audioteleconferencing. The role of students in the teletutorials and the comments made in interviews, journals and questionnaires indicate that peer learning assumes different forms. As it was theorised that peer learning in the context of tutor led teletutorials and peer learning where there is no tutor are different pedagogic experiences, two groups of students who had exposure to both forms of sessions were researched.

The first cohort was ten MBA students (Commerce) from remote locations across Australia. In contrast to the other groups studied, this was a dominantly male group with eight men and two women. In a face-to-face interview with the group at their final
residential school, the issue of gender was dismissed as a total irrelevance by everyone in the group, the two women making the point that in their professional worlds they had always interacted mainly with males. One male did, however, make the point that, through the teletutorials, the group had demonstrated concern for "feminist caring values", while another male student made the comment that the telephone made it easy to disregard such aspects as gender and focus on the ideas and argument presented. This is in accord with the findings of Kirby and Chugh (1992 and 1993) where gender was ranked as the least important environmental element in audioteleconferences.

One of the advantages of the audioteleconferencing for these students was that it allowed group homogeneity to be retained despite relocations and it accommodated their business lives that involved considerable travel. Not only did this mean they had access to a learning experience that would otherwise have been denied them because of their location and mobility but the group could be retained for the period of their study, a vital factor in the success of the teletutorial program for them. They were unanimous and unshakeable - in their contention that the student driven teleconferences had been the single most important factor in both their level of success and their continued participation. As one student said:

It would have been bloody hard. It would be very hard indeed without this facility. ... Um I would go so far to as say that I would say everyone here - having got on it, if it was to be cut next semester, and we were together, we'd just continue doing it through our companies. (Charles, postgraduate student, Commerce, Interview, 15.10.91)

In the specific context of the education of managers it was argued that students needed consistent exposure to group discussion to develop "the group working skills that are critical to effective management practice" (MBA group, postgraduate students, Fax, 22.7.91). As one of the group expressed it:

The teletutorial provides a forum to participate and learn from group synergies. This is an essential management tool and cannot be learned any other way than by group discussion. (Kevin, postgraduate student, Commerce, Fax, 18.7.91)

In the group interview the students unanimously and consistently expressed the viewpoint that the "rapid iterative process" (Bruce, postgraduate student, Commerce, Interview 15.10.91) of the interaction with peers had been critically important for their learning:

It's given us a lot because you, as an individual, can go in with one idea or one train of thought and by the end of the conference you can come out with a totally different one and the reason you've changed is because of the interaction with the rest of the group. I don't think you'd get that by reading ten sets of memos [Referring to electronic mail]. You just won't read them. You may read one,
but the other nine you'd never read. (Charles, postgraduate student, Commerce, Interview 15.10.91)

I think what we get out of it [teleconferencing] is the immediate interaction. You might put a thought forward, an idea, a suggestion, and then someone might build on it and take a little bit away from it and someone might build on it a little bit more. By the time you get to the end of the session you've got a far more developed thought - possibly entirely different from the one you originally put forward - and it's the interaction, everybody feeding in to the information that you started off. (Jocelyn, postgraduate student, Commerce, Interview 15.10.91)

When put in the context of completing similar tasks with other groups at the residential school, they were very conscious - to the point of being scornful - that their standard and approach to problem solving and level of discussion were considerably more advanced than that of their colleagues. Their viewpoint receives some endorsement when the ten assessed tasks are compared for this group and the remaining MBA students. Although occasionally another group scored a higher result, as far as consistently high results are concerned this group is distinctive.

For these students, tutor participation tended to stifle group member input and, more seriously, denied them the opportunity to discuss issues as peers. They believed that the group had an educational function of providing a range of backgrounds, knowledge, experience and skills:

To get the feedback from a lecturer is fine but I know I talk for most of us, we'd much rather discuss it amongst ourselves and put our collective ideas together not because we know more than the lecturer (We usually do!) ... The lecturers have a different approach to the exercise too because they play their lecturing games and sort of draw you out and draw you out and you go through these tortuous mind games to get to the end of the discussion. Whereas if you ask someone else, "What do you reckon about such and such?" you get an answer, you get an opinion on it and it flows much more quickly. (Michael, postgraduate student, Commerce, Interview, 15.10.91)

The presence of a tutor was intrusive and stifled comment while being unable to provide the vital moral support function that fellow students offered.

We've found having lecturers present does quell some of the information transfer. Whilst we're all supposedly mature, adult people as soon as you put someone from staff in I know I, for one, shut up. (Simon, postgraduate student, Commerce, Interview, 15.10.91)

and:

I was terrified by those [with a tutor present]. I just didn't want to look a fool in front of the lecturer. ... I always look forward to them now because they're student driven and I've got to know everybody else and I didn't feel a fool in front of everybody any more. In the structure we're in we all realise that we're in the same boat and can relate to the same situation. We don't feel guilty any
more in saying, "I haven't done that assignment yet" and that's the first barrier to break down. (Jocelyn, postgraduate student, Commerce, Interview, 15.10.91)

Academic input was valued in course materials and for assessment of what the group had produced. This meant that, where the teletutorials led to group submitted assignments, the effectiveness of the process, itself, could be scrutinised:

The learning value of teleconferences is not confined to the analysis of the cases but includes the benefits of learning to work in a highly disciplined way as part of a group and, given that cases are assessed, some salutary feedback on the dangers and limitations of 'group think'. (Bruce, postgraduate student, Commerce, Fax, 11.7.91)

In workshops for those interested in teletutoring I have played a number of audio-taped excerpts from teletutorial sessions and sought perceptions of what was successful and what could profitably be modified. While I have noted interesting variations in response, reflecting differing pedagogical views as well as personalities, with rare exceptions the session judged most dynamic and stimulating is that of this group of MBA students who have no tutor present. This is the only occasion where the role of the leader (normally the tutor) is not readily apparent from either the dominance of the discourse or the style of the utterance. As these students appreciated, however, having consistent group contact over an extended period (the group had functioned as a remote learning group for the four years of their MBA and had used audioteleconferencing for nearly three years) was very different from the occasional contact over one semester that is the norm. Hence they identified one of the benefits of involvement in the program as

The multi-way discussions that result when group members all know each other which covers more meaningful material than many staff driven teletutorials where such group dynamics have no chance of developing. (MBA group, postgraduate students, Fax, 22.7.91)

The interview revealed that this group had gone through several "evolutionary stages" and that their success had been hard-won through experience. Finally they concluded:

What you need is structure. Structure breaks down barriers. That was our problem. We had barriers - human barriers, personality barriers. You need to put time and effort into building group dynamics and forming a cohesive group. (Bruce, postgraduate student, Commerce, Interview, 15.10.91)

"We're all singing to the same sheet of music" (Kevin, postgraduate student, Commerce, Interview, 15.10.91).

Significantly, on several other occasions with other tutor-led groups when tutors were apparently disconnected, students interacted more openly and enthusiastically. One Education tutor who was able to hear the students, but could not, herself, be heard,
claimed that this stimulated the most instructive period she has ever spent in reflecting on her own pedagogy. She considered the tenor of the discussion was qualitatively superior and that, on the occasions where she would have felt compelled to add the "academic dimension", a student assumed the role with aplomb. For some students, the unexpected absence of a tutor removed an inhibiting factor. For instance:

We lost the Lecturer for a time tonight which allowed us to talk amongst ourselves for a short period. It is a pity we do not have the opportunity to talk amongst ourselves (at least once without the Lecturer) so we could 'chat' about our progress uninhibited by the need to adhere to sections and topics and trying to 'sound confident'. (Claire, postgraduate student, Social Sciences, Journal, 9.4.90)

The second cohort of students, also postgraduate, was the New Zealand group who experienced group sessions in regional study groups without tutor presence as part of their networked national teleconference. Student comment focussed attention on the apparent greater formality of the national teleconference. For instance:

We're more restrained on air, we give fewer wisecracks, offhand comments and jokes, our own personal views we may not like to give to NZ. ... We disagree more off air with what is said on line. (Denise, postgraduate student, Health Sciences, Questionnaire, 1991)

People are much more polite! (Lyn, postgraduate student, Health Sciences, Questionnaire, 1991)

[The national teleconference] slows down a lot and is less spontaneous. Also occasionally you get one person 'holding the floor' and because people are speaking into microphones it becomes more formal. (Brenda, postgraduate student, Health Sciences, Questionnaire, 1991)

Listening to the tape-recorded sessions it is very obvious that the dynamics of the face-to-face group were very different from those connected by telephone. Although the 'Unitel' bridge (unlike the 'Conferlink' bridge used by Deakin University) can handle multiple audio signals, and so there can be two or more voices heard simultaneously, this occurred rarely. In contrast, the regional groups had consistent instances of multiple voices and many passages were incomprehensible to anyone listening to the tape-recorded sessions. The sessions were full of interruptions, incomplete utterances, competing voices as well as sounds of affirmation and agreement that overlayed the original utterance. As one student wrote:

One of the things I like about [our] system is the local group discussions - they are much 'faster' and can cover more ground as interruptions/agreements can easily be made. I think that to be 'on-line' all the time might be quite tiresome. (Brenda, postgraduate student, Health Sciences, Questionnaire, 1991)
For the student informant who was located in a remote area of New Zealand and was connected only by telephone with a sub-group of similarly isolated students, there were mixed feelings about being by herself. A vocal student, she appreciated the greater opportunities she had to contribute and the fact that she did not have to accommodate other people or worry about their reactions (Janet, postgraduate student, Health Sciences, Interview, 24.9.91), but she felt the telephone interaction had limitations when compared with the face-to-face interaction of the other study groups:

Yes, it was the interaction between members of that particular group who'd obviously got to know - knew each other - because they'd participated in the previous paper and when it came to responding there was a lot of interaction beforehand so that more conclusive answers were already available by the time that someone was sort of ready to speak back, whereas in my sort of situation sometimes when I am thinking through something I find that it is not as well developed as what it becomes when you're with a group and often when you're on your own you sometimes sort of miss the point a little bit because you haven't got someone next to you to say "Oh, what do they mean by that?" or "Did they mean such-and-such?" and whoever you're interacting with is able to say, just sort of guide you one way or the other. Also, you're, when you're with a group, you know, if something really quite humorous comes over, you can laugh with them and it really sort of adds a special sort of quality to that type of meeting. Whereas when you're on your own you sort of think that you should laugh, but you can't really laugh on your own. So, but the most important thing is being able to get information clarified as you are assimilating it when you're with a group. When you're on your own you can only sort of think you're understanding - there's no way, unless you actually press the button to ask for it to be clarified, and you can't obviously do it all the time - there's no way of really sort of being sure in some situations that you've actually got the point as it was intended to be received. (Janet, postgraduate student, Health Sciences, Interview, 30.7.91)

While the technology had an apparent influence here, the greater liveliness of the exchanges of the 'off-air' study groups and the relaxed, casual atmosphere, are attributable also to the nature of the encounter. For several students the social contact and the small group discussion of the regional centres were highly valued and seen as a main benefit of the course. Having been together for previous study, many students knew their peers well and in many groups the discourse had the linguistic qualities of friends who were very accustomed to one another's speech. So there was banter, comfort in 'cutting in' and instances of 'in' language. In the context of intellectual discussion, however, this has a cost. On many occasions students were not given the time and scope to develop ideas. As they attempted to articulate half-formed thoughts, strident voices would take the ideas away. In some of the larger groups, less forceful students found that the competition to express an opinion meant that (in the restricted time allowed: generally fifteen to twenty minutes) there was often not the space for them to have opportunities to present their viewpoints. For one student having contact with
the same group over an extended period was limiting: "Off-air time is not always productive and one is with the same group for sometimes a year or two. Better to have contact with a wider group at all stages" (Alice, postgraduate student, Health Sciences, Questionnaire, 1991). Another believed that "in the 'off-air' discussions we miss out on what might have been useful ideas" (Heather, postgraduate student, Health Sciences, Questionnaire, 1991). Further, as one student wrote, "You focus on what is being said on teleconference. In group discussion you can sometimes get sidetracked from set topics" (Marilyn, postgraduate student, Health Sciences, Questionnaire, 1991). Without the constraints of tutor vigilance to ensure perceived relevance, there were instances of clearly irrelevant conversation: choice of pizza and problems of car-parking, to name but two. In the case of the MBA students discussed above, academic guidelines existed in terms of set tasks and study materials, with the facilitation of the group vested in the students with no directly imposed structure. Here the structure was clearly externally imposed and while this was welcomed by some of the groups and scrupulously followed, other groups had difficulty. Particularly at the start of the semester, some student groups spent a considerable part of their allocated time venting their dissatisfaction and substituting their own agendas. There were some disturbing cases where students confessed, "I don't really know what I'm meant to be doing" when it came to activities for the regional groups. On such occasions the lack of tutor direction and guidance became problematic.

A sense that peer discussion was less valuable than discussion that included the tutors led some students to make negative assessments: "We break for group discussions. This is generally a waste of time. We would rather do hard learning and talk in our own time" (Jennifer, postgraduate student, Health Sciences, Questionnaire, 1991). Such a comment suggests that the tutor discourse is judged as superior, representing "hard learning". In contrast, another student was concerned with what she perceived as the changed nature of the discourse when the discussion moved 'on-air': For her there was

Less honesty. Less frankness. Less participation. More parroting what the tutors want to hear. More comments not voiced as people feel awkward/can't be bothered/know it isn't what the tutors want to hear. (Bernice, postgraduate student, Health Sciences, Questionnaire, 1991)

Where students and tutors were connected simultaneously peer interaction was still a vital element. The benefits of such interaction were discussed by students at one of the regional study centres:

It was interesting to find out if other people think along different lines and you really think perhaps that your's is the only way (Yeah) of approaching it. To discover that other people don't think like that.
It's just like a process of discovery, isn't it?
I never have any difficulty with people disagreeing with me but I do have
difficulty if I feel that I haven't had the opportunity to say what I feel (Yes!) and
at least be heard -
Or that they are putting you down for what you believe?
Oh, oh that's OK, that. But I feel that it's important to know that I've
had the chance to both say how I feel and that people have listened to it.
Does that change your views at all? Or, I suppose it makes you think?
I actually welcome um, I was going to call it, criticism, but it's not
actually that is it? To demonstrate a point of view, isn't it?
Unless you actually tell them your point of view then there's nothing else
for anyone else to refute or question or agree with - So you must have an
opportunity and that's really important, isn't it?"
(Regional study group, postgraduate students, Health Sciences, 30.7.91)

While this exchange suggests some of the dangers inherent in such interaction (the
"putting you down for what you believe"), it illustrates also that students will react
differently to what they perceive as negative response - "criticism". Further, it indicates
how important it is that time be allowed - the "opportunity" be given - to open students
to a wide range of views and, at the same time, allow them to express their own points.
While there was general acknowledgement of the role of tutors in facilitating the
discussion, what was particularly valued by students was the opportunity to
"brainstorm and spark ideas" with their peers in a way that tutors could not provide
(Bernice, postgraduate student, Health Sciences, Questionnaire, 1991). However,
where the tutorials are tutor led, the extent to which peer learning is accommodated
depends, to a very large extent, on the tutor, not only in terms of the amount of time
allocated but (as discussed above) by how student input is generated and responded to.

For some students the essential value of peer contact was that it allowed them to engage
in issues at what they perceived as their own level:

Teletutorials ... give a feeling of belonging. Although I realize off-campus
students are free to ring tutors at any time, it is the tutorials with others involved
that seem to present a wider variety of views at my level! (Carmel,
undergraduate student, Nursing, Questionnaire, 1990)

Contact with fellow students is extremely important. Yes, to be able to be
speaking at the same sort of level with a group of people with a common interest
means a lot to me. (Janet, postgraduate student, Health Sciences, Interview,
31.7.91)

* As discussed above, the discourse at the regional centres and as tape-recorded was full of
partial utterance, multiple voices as well as background noise. For this reason it proved
very difficult to transcribe and this passage has received considerable editing, in contrast to
passages quoted from the teleconferences.
As discussed elsewhere (see Chapter 5 and also Chapter 7), the academic writing of the print materials can intimidate students. As Moffett (1965: 1981, p147) advocated, knowing "the effects of one's rhetoric on someone who does not give grades and does not stand as an authority figure" is a valuable learning experience. However, for some students the teletutorials caused problems for they were forced to recognise that their peers were more articulate and apparently more knowledgeable and better equipped to handle the course than they were. For instance:

I lack confidence when speaking in a group with many people. Also (my) communication skills are not very good ... Felt inferior being in a group of more mature people who seemed so much more experienced and knowledgeable than me. (Marilyn, postgraduate student, Health Sciences, Questionnaire, 1991)

I must confess (as I am into confessing tonight) that at times the other students leave me in awe because they sound so capable, confident and knowledgeable. (Claire, postgraduate student, Social Sciences, Journal, 23.4.90)

However, while initially there was greater likelihood that "everyone else thinks everyone else is a superstar" (Jocelyn, postgraduate student, Commerce, Interview, 15.10.91), as students had more experience of speaking within the one group this viewpoint tended to be modified. Moreover, as the period of study progressed most students who persevered gained confidence with their ability to handle the course requirements. As one student wrote:

I found the teleconference very useful. It gives us external students a chance to find out how other people feel about this course and how they are going. Most of the girls feel the same as I do. Although I was bewildered at first, I am beginning to see where I am going. (Jenny, undergraduate student, Nursing, Journal, 21.5.90)

Many students appreciate the opportunity to set their work in the context of what other students are finding. Sewart (1981, pp9, 11) considered that where interaction was "strictly between teacher and student" the student was "therefore always at a disadvantage" as comparison with the peers was impossible with the student lacking "the usual bench marks" for self assessment. Kevin (postgraduate student, Commerce, Fax, 18.7.91), in claiming that a value of teletutorials is that they provide "an opportunity to compare standards, an incentive to lift effort if necessary, and the knowledge that I am keeping up to the standards of others", clearly agreed with Sewart. While such remarks appeared frequently, they came, however, more consistently from able students, towards the end of their undergraduate study or at postgraduate level and in disciplines that valued competition, such as Commerce.
As well as providing a ‘benchmark’ and sometimes motivation, peers contributed to learning in several other discernible ways. Students revealed that fellow students had opened new areas for them.

Lisa made a very good statement by saying that nurses had a lot of power with patients. I had never thought of that concept before and I agree with her. (Jenny, undergraduate student, Nursing, Journal, 3.4.90)

Peer comment provided affirmation:

The teletutorials were extremely helpful. It is reassuring to know that other students are having the same or similar problems or that there are shared positive thoughts and reactions. ... Listening to what the other group members had to say did not really add to my views but they re-enforced what I had learned. (Hilda, postgraduate student, Nursing, Questionnaire, 1990)

Peers could provide useful suggestions for major assignments:

I had also been worried about who I would choose for my case study but one of the other women who is not working is going to use her baby and do Massage Therapy so I might do Massage Therapy. I had been worried because most of the patients are geriatrics at present and none would be coherent enough to tell me how they feel. But ... neither can the baby, but you will be able to see how the baby reacts, the difference it makes to his behaviour. (Julie, undergraduate student, Nursing, Journal, 22.5.90)

On this occasion, the student suggestion not only gave valuable direction for her peer but it clearly changed the tutor’s perception of what was possible for this assignment task as she modified her view during the discussion. Initially, in response to Julie’s concern, the tutor had said, "Yes, I understand your problem. You’ve got to have someone fairly coherent". Then, on reflection and drawing on what another student had said earlier, she added, "Although in um Sue’s case, with a little baby, there’s no way the baby can communicate effect. You can actually see um effect, can’t you? It doesn’t have to be verbal thing. Is there any, er, chance with any of the disorientated older people that you could see an effect without a verbal communication?" (Teletutorial 3, Round 3, 22.5.90).

Class discussion could assist with problem solving:

It was great to hear others’ views. ... I enjoy taking part as a class - [it] helps solve problems. Added information is often an outcome of the conferences. (Mary, undergraduate student, Nursing, Questionnaire, 1990)

In [the first unit] I did case studies as a solo student and in [the second unit] as part of a group. In the former I always had the nagging suspicion that I had missed or overlooked some vital fact in the case. In the latter I gained considerable insight from the discussions with others. (Bruce, postgraduate student, Commerce, Fax, 11.7.91)
Students could discover through questions and comments from their peers that what they believed they had grasped fully had not been adequately understood. On this issue one student wrote in her journal that through the print material she had been satisfied that she understood what a Literature Review entailed, but the tutor’s response to a peer’s question showed her differently with significant consequences for her assignment and hence her assessment:

We had the teletutorial today. I am so glad that we did because I would have been on the wrong track with my next assignment. ... We discussed how to interpret Literature Review and Bev explained it was different points of view from different authors. I am glad someone asked that question because I looked at it but did not really absorb its meaning. I would have been on the wrong track with that assignment. (Jenny, undergraduate student, Nursing, Journal, 21.5.90)

While all these points are important, the most salient feature of peer learning was expressed by one of the MBA students when he said:

We’re there to learn, not to be taught and the big difference is teleconferences. We’re learning, not being taught. We’re learning from each other. (Michael, postgraduate student, Commerce, 15.10.91)

Cragg (1991, p52) concluded that 'classmates' were "a very important learning resource" for nurses because Nursing is a "group activity in which practitioners expect to consult with others before implementing ideas". This research endorses Cragg's conclusion for Nursing but takes the argument further, particularly by its reference to the MBA students. Any discipline/profession where consultative processes and group synergies are critical factors requires consistent exposure to quality peer contact. Further, these data suggest that all students, irrespective of discipline, are likely to gain from some peer interaction as part of their learning experience and the teletutorial can create such opportunities for distance education students.

**AS STUDENT SUPPORT**

Teletutorials are commonly interpreted as a means of providing student support. The social dynamics of the teletutorial are clearly part of the generic of interaction and in this discussion I have followed Henri's (1992, p126: from Berger) proposition that the social dimension is reasonably taken to exist in utterances that are not related to the formal content of the subject matter. However, it is important to note that how 'support' is interpreted varies, as does opinion about its necessity and rectitude.
Sewart (1982, p29) included telephone contact as part of a rich and varied mediating system which sustains and supports distance students in their learning. He wrote (p27):

Beyond the package of materials, there is a need for individualized advice, support, interpretation, and mediation capable of meeting the diverse needs of the students. The success of a distance education system rests upon a correct balance between the teaching package and the advisory and mediating function.

Here there is some confusion about what is entailed with 'support' for Sewart uses the word 'support' in conjunction with what many would see as its constituents: advice, interpretation and mediation. The statement, moreover, suggests that it is the province of the printed course materials to teach; that of the teleconference to act as a bridge between materials organised for the entire student cohort and the individual student. In this context support through telephone tutorials is commonly seen as remediation. In contrast to Sewart, Ehrmann (1989, p257) contended that, because the learning environment for those at a distance is "usually deficient" in interaction, more coordinated support would assist to alleviate barriers "especially in the area of higher order reasoning and open-ended problem-solving". Whiting (1987, p39) pointed to reduction of isolation and to social advantages once students are put into communication with one another. These sources serve to illustrate the kinds of arguments put forward to justify audioteleconferencing as both support of the course materials and support of the student.

The literature, however, gives clear indication that distance educators have differing views on this whole issue (see earlier discussion of Chapter 2: section 1). Even where the ultimate goal is the independent, self-directed learner, there is recognition that unless students are supported - especially in the early stages of their study - they are unlikely to make the transition from 'other-directed' to 'self-directed' learner without considerable difficulty, if at all. (See, for example, Da Costa, 1979, p24.) For Smith and Small (1982, p137) the goal of complete independence from mentors and peers is seen as "unfortunate", "futile" and "misdirected" and they sought mechanisms to provide moral support to "help the student to come to terms with the challenge of university study at a distance". In the literature that relates explicitly to audioteleconferencing there is some recognition that students respond to such opportunities for support in different ways. Crawford's (1991) research, for example, sustained the idea suggested by Thompson and Knox (1987) that tutorial support may be differentially effective for different groups or types of students. Heselton's (1985) characterisation of OLI students most likely to join teleconferences is a further contribution to this area. She found they tended to be students who had enrolled for long-term, specific goals; younger than forty years; male, and had the option of taking the teleconference from their homes.
The learning tasks of students comprise much more than the acquisition of the subject knowledge of a course. To succeed at tertiary study, students need some understanding of the value systems, behavioural norms, customs and practices - even language - that prevail at their university and within the faculty/school where they are situated. As Northedge, (1987, p147f) appreciated, students enter the exotic culture of the university and face problems of constructing meaning without an adequate frame of reference. Off-campus students are disadvantaged in that they have limited opportunities to gather information with which to construct meaning frameworks and even fewer opportunities to negotiate those meanings with others who operate in the same cultural setting. Meacham (1984) contended:

Distance learners are perpetual strangers in their chosen institutions, and they are largely unaware of the prevailing negotiated rules governing student behaviour and play a negligible part in the negotiating process. The distance learner is usually given a set of rules and tasks and is required to make meaning of them without reference to 'significant others' in the form of peers and authority. (npp)

In addition to learning the culture of academic disciplines and the formal and informal rules and norms relating to student behaviour, the off-campus experience includes learning how to negotiate at a distance with a complex bureaucracy. It is not surprising then that off-campus students use the opportunity provided by the teletutorial to gather a broad range of information as it is the medium through which their reality is constructed and negotiated (Grace and Thompson, 1989, p36).

* * * * *

Tutors typically believed that the contact provided by the teletutorial was an important support mechanism:

I tend to think that the most important aspect is the sense of belonging and having contact with other students and the university. They [the teletutorials] provide a support function - almost emotional support. (Quoted in Grace and Thompson, 1989, p24)

Student comment justified tutor perception. For instance, to select just a few comments from the first major case study:

Teletutorials, especially for distance students, provide contact, reassurance and give students a sense of legitimacy as part of the university student body. (Catherine, undergraduate student, Nursing, Questionnaire, 1990)

It was just so good to hear other nurses who are doing the same study that I am and who work and go through the same things. I really warmed to some of the voices and felt more part of a group than a sole student as I had before. ... It is a great release of tension to actually speak to someone else doing it [the course]
even though there are some constraints [not specified] of using the phone. (Julie, undergraduate student, Nursing, Journal, 4.4.90 and 23.5.90)

I have really enjoyed the teletutorials this semester. I feel that the contact with Bev Taylor and the other Bachelor of Nursing students has been a source of inspiration and has helped to maintain perspective throughout the unit. As I am the only student in Singapore doing the Bachelor of Nursing course, the teletutorials have provided me with a vital link and given me invaluable support. (Beverley, undergraduate student, Nursing, Journal, 22.4.90)

Students in other faculties and courses expressed similar positive viewpoints. For instance:

I can't emphasise enough the importance of the actual telephone contact. What you miss out on so much as a remote student is that you don't have the ability to touch, feel, talk to people. You feel so out of it. When you're two topics and three assignments behind the world's down on you. (Simon, postgraduate student, Commerce, Interview, 15.10.91)

The teletutorials opened possibilities for students to make contact with other students beyond the teletutorial. After her first session a student wrote:

I guess the biggest bonus for me was that now I would probably feel comfortable contacting another student for something now that the initial 'introduction' is over. (Catherine, undergraduate student, Nursing, Journal, 27.2.90)

Many students had the same reaction as Catherine and the interviews indicated that such informal networking was a frequent consequence of the teletutorial encounter. While some tutors actively encouraged this by spoken advocacy and administrative support, there is a need for sensitivity in this area. Tedious exchanging of addresses, telephone and fax numbers during the teletutorial is justifiably considered by most students as squandering limited contact time. However, the option occasionally taken of circulating such information routinely is equally justifiably seen as dubious ethically. Most tutors found that, where students expressed a wish to contact one another, facilitating this could be readily accommodated outside of the teletutorial time and students who chose to contact peers from the group were in a position to take the initiative and control the later exchanges. Although some isolated students expressed a reservation of the personal financial costs of this, in comparison to the 'free' teletutorial call, and there was a common claim that financial constraints reduced such networking, there are numerous instances of students supporting one another - not only during the original unit of study, but over entire degree programs - once the initial contact had been made in the teletutorial. Some tutors, mindful of costs and seeking such formal and/or informal networking, deliberately organised their teletutorial groups by locality. However, such
organisation precluded opportunities for students to explore issues with people from diverse regional backgrounds. Further, a minor study of informal student networks indicated that, although there was awareness of the cost factor, the far more critical element was the perceived value of the personal contact and, where distance precluded face-to-face or even telephone contact, letters were a common substitute.

Hence, even if students found that the discussion "wasn't too cerebral", the opportunity to speak directly with mentors and peers was still highly valued: "the most difficult thing about distance study is the isolation and the teleconference gave us a chance to simply talk" (Catherine, undergraduate student, Nursing, Journal, 27.2.90). Similar comments such as "The personal interaction - the personal aspects - is just as important as the process" (Bruce, postgraduate student, Commerce, Interview, 15.10.91) indicate that, although it is possible to judge a surprising amount of the teletutorial discourse as disappointing in terms of intellectual rigour (see Chapter 7), the "humanising of the printed course material" by the opportunity to talk with peers and mentors was highly valued and is, itself, a valuable aspect of the teleconferencing.

It cannot, however, be assumed that any contact is better than none as far as breaking down isolation is concerned. For a student located in a remote Northern mining town teletutorial contact reinforced his sense of deprivation:

In one sense they [the teletutorials] did assist in overcoming isolation; at another level they emphasised it even further. They reinforced the awareness of how difficult it is to keep up with national current events etc when the Sydney Morning Herald on a weekday costs $7.50. This made me feel reluctant to participate. (Dale, postgraduate student, Social Sciences, Questionnaire, 1988)

Nor can it be assumed that supporting some students by offering teletutorials will benefit all in the group. For instance, one acknowledged advantage of the teletutorial is that it allows many students who would find it impossible to attend on-campus tutorials to participate. In this way disadvantaged groups, such as young mothers, can participate. Sometimes, however, there is a cost. Occasionally teletutorials are interrupted by the sound of a child crying. Where the disruption became so marked that the student seemed unable to participate effectively as a result this caused stress not only for the mother but for the rest of the group.

[I want] to alert you to the problems of including young children in teleconference sessions! Top priority must be the learning experience. If a child disrupts constantly and dictates the agenda of the group against the wishes of the participants then surely the child must be withdrawn. We have honestly tried to be supportive. It's sad that we part on a sour note because the group otherwise
has jelled into a warm, stimulating, interactive supportive group. (Denise, postgraduate student, Health Sciences, Journal, 5.11.91)

While such comments can help us understand why some students indicated dissatisfaction with the teletutorials they experienced in terms of reducing isolation*, of all the categories listed in the questionnaires this was the one where the highest levels of satisfaction were recorded (see Appendix 1d) with 30% using the category of 'Excellent', 38.9% 'Good', 21.7% 'Adequate' and only 3.3% 'Inadequate' and 2.8% 'Very Poor', with 3.3% either furnishing no response or indicating they found the question not applicable to their circumstances. It is of some interest that two areas (Nursing and Commerce) received no negative categorisation in this regard.

Distance education is typically aimed at those who have too far to travel (the remote): those who are restricted from travelling (the elderly, the physically handicapped, the incarcerated) and those who travel too much (salespeople, businesspeople, those involved with armed forces etc). For these people the teletutorial offers possibilities for student support and hence the potential to fulfil the needs discussed above.

"Teletutorials add a personal touch, that I think we yearn for whilst doing a course via correspondence" (Sue, undergraduate student, Nursing, Journal, 27.2.90). However, the student contact provided in the teletutorial remains qualified:

What I miss, and what the telephone contact cannot replace, is the chance to meet and thrash out a topic etc. The syndicate group/case study way of learning is valuable but it doesn't translate to teletutes. It also helps to be able to go for a beer or coffee afterwards! (Hector, postgraduate student, Commerce, Questionnaire, 1989)

**AS REDUCING ATTRITION**

A logical consequence of using teletutorials as a support mechanism is a desire to find evidence of success. One quantifiable way that has been attractive to a number of institutions (partly in a context of cost justification) is to link teleconference participation with persistence. There are instances in the literature from all countries with substantial investment in audioteleconferencing that claim lower attrition rates as a result. In an

* Although the difficulties customarily associated with isolation are almost inevitably, as here, associated with the students, some tutors, especially those who are accustomed to face-to-face contact, find that the teletutorial contact with their off-campus students helps reduce their sense of isolation. This is a different expression of isolation from that of Kirk (1976), for instance, who, in her article "The Loneliness Of The Long-Distance Tutor", wrote of the dislocation of part-time tutors from the institution (in her case, the Open University) and especially of her sense of isolation from course teams.
early study, Anandam and Fleckman (1977), from the Miami-Dade Community College, focussed on telephone intervention in open learning instruction in a Psychology course. They found that those students who were systematically contacted by the instructor by telephone showed greater course completions. At the Open University drop-out from telephone groups has been shown to be very small (Daniel and Marquis, 1979, p41). New Zealand writers have used student evaluative feedback to support the view that the factor most relevant to the low dropout on the Otago network is the regular 'live' contact by audioteleconference: see Brown, 1990 and Love, 1989. Graham (1984, p31) asserted that the success of educational teleconferencing in Canada was reflected in the decreased rate of attrition with teleconference courses, as its interactive capacity set it apart from correspondence courses and home study with television. Her viewpoint was reinforced by McDonell's (1992) experience at the University of Ottawa where dropout rate in the remote communities (where audioteleconferencing is used) is very low: around five per cent when compared with fifty per cent in correspondence only courses.

Other study has been more circumspect in its claims. Brookbank's (1984) project observed and assessed any possible effect on student dropouts as a result of audioteleconferencing. He concluded (p61) that many factors could influence attrition and, with no substantial variation in dropouts between test and control groups, it was "evident that no argument can be made for the influence of audio teleconferencing as a factor in reducing dropout". Scales (1984), drawing on data from the Open Learning Institute of British Columbia, having found a 'modest' positive correlation between telephone contact and persistence, considered that the issue warranted further study.

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In an attempt to link this study with attrition, for one semester (semester two, 1989) statistics were extrapolated from the university data base to show the results of students for each course, coupled with a break-down of the 'Fail' results to indicate times of withdrawal, and the total enrolled in the course as compared with the total assessed. A printout of the results of students who had participated in teletutorials was set in the context of the overall results for each course. The purpose of this exercise was to do some rudimentary analysis to consider how students who participated in teletutorials compared with those who did not as far as attrition (and results) are concerned.

While it was readily apparent in statistical terms that students who had participated in teletutorials were more likely to achieve at a higher level and to persevere, it is
impossible to establish a causal relationship. In this regard, the research supported Crawford's findings (1991, p55) that, while there was a strong association between student initiated calls, in the case of her research, and completion status, there was no evidence that this was a causal relationship. Translating findings which correlate telephone contact and persistence to this study are made problematic because the students in almost all cases choose to join the teletutorials and so are immediately atypical; by their decision to participate they present as students likely to persevere. As Rekkedal (1989, p13) concluded, while those who had regular telephone contact with their tutors had higher completion rates than other groups, "the students who wanted to take part in the telephone activities, i.e. accepting a deeper involvement with their tutors, from the very beginning were the most motivated students". Further, there is a belief among some tutors that only those students who are confident with handling dialogue and feel they are likely to have at least an adequate level of knowledge and understanding of the course materials will become involved in the teletutorial program and/or persevere with it, while the 'weaker' - as well as the 'minimalists' - will opt out. Moreover, it was impossible to determine which students had participated in face-to-face tutorials as well as teletutorials and which ones had experienced no contact with university teaching staff in the period.

It is indisputable that issues such as attrition rates and results are multi-faceted. It is indeed a rare case where, as reported earlier (See Chapter 3: section 3), the decision of a student to continue with a course is directly attributable to the experience of a teletutorial. However, student comments occasionally have linked the teletutorial with perseverance as in the following questionnaire response:

I was feeling very down at the time of the teletutorial and thinking of dropping the subject. I was encouraged and came away feeling that I was not alone and with much more understanding of the subject. I went on with enthusiasm and finally received two HDs for my assignments. I would definitely have dropped out if not for the teletutorial. (Quoted in Grace and Thompson, 1989, p24)

In the case of the MBA remote teleconferencing group (see above) there was unanimous agreement that the teletutorials had been a "major factor" in their completion of the degree in the time scheduled. With 45 of 60 who had enrolled expected to graduate, they could point to a "10/10" success rate. As one student said:

It [teleconferencing] helped me a lot. It certainly encouraged me to keep going. Certainly in second year, in particular, the avenues are quite high to drop out of the course and think, "Well stuff this, it's not worth the effort". We've kept each other going for a few years. (Charles, postgraduate student, Commerce, Interview, 15.10.91)
Although there is concern that off-campus students tend to have higher attrition rates than those studying on-campus, Rekkedal (1982, p118), after a decade's research on dropout rates, concluded that there were good reasons to state that dropout generally did not seem to be a more serious problem in distance education than in other forms of part-time education. This study has not been able to develop the case further.

SECTION 2: PERCEIVED RESTRICTIONS

TECHNICAL PROBLEMS

In the earlier literature, especially in that relating to the United Kingdom (see, for example, Pinches, 1975 and George, 1979), there is much concern with the perceived inhibiting effects of technical problems. Cavanagh (1982) found that, like any innovation in the use of technology, technical problems are likely to be encountered at least in the early stages. Brookbank (1984, p78), of Dalhousie University, concluded that "the loss or distortion of one or two bridge experiences could seriously undermine the value of the educational experience and render the added administrative costs of audio teleconferencing much less productive". Rothe (1984) wrote that disconnections, faulty speakers, line interference and poor installations had proven to be the major obstacles in the quality of interaction and concluded (1985, p202) that the type of technical equipment and its reliability is a "major factor in the learners' active and satisfactory participation".

The 'Conferlink/Confertech' and 'Unitel' networks used by the universities whose teleconferencing experience has informed this study, have had technical problems to the extent that they have been noted in publications. Grimwade (1984a, p30), referring to the early days of audioteleconferencing at Deakin University, wrote that technical problems were encountered almost every week. He listed these and offered some comment on student reaction (seen as "teaching problems") but none on staff response. He considered (p37) that it would be interesting to find out how technical performance of a system as a whole affected perceptions of the audio quality. Five years later, Grace and Thompson (1989, pp27-30) concluded that technical 'hitches' were still perceived as a "significant problem" by Deakin University tutors and students, the Telecommunications Officer and Telecom and pointed to three main problem areas: disconnections; delays in connection or failure to connect; poor audio clarity. As far as the 'Unitel' network is concerned, Love (1989) referred to "occasional" technical problems but did not place any significance on these. In contrast to this viewpoint,
Madjar (1990) found the disruptions caused by technical problems within the 'Unitel' network interfered with the flow of the discussion and reduced the time available. Similarly, Broadley and Shaw (1982) found that sessions with considerable technical problems were frustrating and were invariably evaluated by students as the least valuable tutorials.

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While disconnection is the ultimate penalty, arguably the most significant technical problem is poor audibility as it has a pervasive effect. The teletutorial sessions revealed many occasions where students could not be heard clearly. At a minimum this disrupted the flow of the discourse as there was a need for repetition; at its most intrusive it caused students to disconnect for they felt they were ruining the experience for others. Analysis of one of the teletutorials suggests that the difficulty of hearing effectively silenced a student. Having been an active contributor before "fading in and out", and the tutor bringing attention to this problem, she contributes only twice more for the rest of the session: on each occasion by invitation. Although her parting comments are in accord with those of the rest of the group, her embarrassing position is reinforced in the frustration evidenced in the final tutor solicitation: "Kerrie, have you got any parting comments and I hope I can hear them!" (Teletutorial, Nursing, 1990).

Audio problems can lead to peer judgements of inadequacy. For instance:

Helen had a bit of trouble getting started, for one thing the line was bad and we all had trouble hearing her, and the other thing I felt she didn’t seem to know what to say.

And, after she had disconnected and had called back with a clear line:

Helen, who had not much to say in the beginning, really became involved and made some very good statements. (Jenny, undergraduate student, Nursing, Journal, 3.4.90)

Indisputably poor audio has a deleterious effect on the dynamics of the discourse and students' concentration:

The audio interference of tonight's session made it difficult to concentrate again. The voices and sounds seemed to boom out or fade which was very disorientating because I was frequently having to hold the hand receiver either away from my ear or tightly pressed against my ear. (Claire, postgraduate student, Social Sciences, Journal, 7.5.90)

... today's tute was a bit of a problem in that Bev Taylor's voice came over as a blur. The other participants had the same problem although we could hear each
other quite clearly. So I felt that this was rather a disadvantage. (Beverley, undergraduate student, Nursing Journal, 22.4.90)

Undoubtedly poor audio quality impacts on attitude as well as teaching and learning outcomes. One student wrote:

Of four teleconferences arranged in semester one, I was connected to two, both of which had very poor to inadequate audio quality. In the third I was disconnected less than a minute after hook up and could not be reconnected. In the fourth I received no call and at the time of writing do not know why. (Timothy, postgraduate student, Commerce, Questionnaire, 1991)

Failure to connect Deakin University students who are scheduled to receive a teletutorial has been of sufficient frequency to warrant a detailed record being kept for one semester in 1992. In this period there were 464 teletutorials with 4034 participants scheduled to be connected. With 2950 connected this meant that 1084, a disturbing 27%, did not participate. In the case of overseas students the failure to connect was even higher: 46% of connections. Wasteful in administrative time, there was special concern with how failure to connect impacted on students. Because of the amount of domestic organisation that the teletutorial entails for most students, a silent telephone causes anxiety - frequently anger - and disappointment. This is compellingly illustrated by one questionnaire response:

One evening a teletutorial was timetabled that did not eventuate. This was quite distressful at my end, as my husband was taking the children to the park to enable me to have an effective call. We waited some time before assuming it wasn't on; meanwhile the children were frozen and mosquito bitten, not to mention my husband's ideas and corresponding patience was running rather low! Perhaps our tight schedules and difficult arrangements could be considered more! It is not just the staff at Deakin who have schedules and commitments to keep! (Quoted in Grace and Thompson, 1989, p14)

Moreover, when tutors have invested considerable effort in preparation, the loss of significant numbers (and sometimes just the loss of one person who has been designated to fulfil a particular task such as to introduce or respond to a topic) can be frustrating and disappointing.

This study showed that the most common cause of a student not participating as scheduled (44.1% of the cases) was that, while the number was answered, the student concerned was not there. In 30.6% of the cases there was no answer and in a further 7.1% an answering machine had been left on. While it may appear that it is justifiable to blame the student's failure to meet a commitment, when this was pursued further, tutor and administrator failure to notify the student was the cause in approximately 10%
of the occasions, although where answering machines had been left on that was almost inevitably an oversight on behalf of the student. In 7% of the cases, however, a wrong number had been called and almost invariably this was a clerical error made at the university. It was also of concern that in 9.4% of the cases the student concerned had withdrawn. The remaining 1.8% was attributable to very late cancellations. On two occasions in this period sessions were cancelled by the tutor without informing either the students or the supportive administrative staff. With overseas students, there was frequent difficulty in making the necessary connections out of Australia and the different time zones were often the cause of the problem. These data alerted us to the extent of the problem and the need to undertake procedural strategies to reduce this difficulty. One of the strong recommendations made was that on occasions when the call does not eventuate due to a technical or staffing problem the students should have this explained to them.

Although there have recently been considerable technical improvements to the teleconferencing services at both universities, in the period of this research technical problems were significant. Students were specifically asked in questionnaires to evaluate the audio quality of their sessions and, while the majority were satisfied, a disturbing number expressed concern. 16.1% rated the audio quality as 'Excellent', 42.2% as 'Good' and a further 25% as 'Adequate' but for 8.3% it was 'Inadequate' and 7.8% found it 'Very Poor'. Further analysis indicated that response was variable for different cohorts, with the New Zealand students facing fewest difficulties and Nursing and Social Science students recording most dissatisfaction; see Appendix Id.

Less overtly problematic than technical problems, but clearly related to them, are technical constraints.

One student wrote of her difficulty in absorbing information in a telephone-mediated situation adding "I felt inhibited to ask others to repeat things I did not hear or did not manage to get written down" (Elaine, postgraduate student, Nursing, 1990). Further, handheld telephones reduce the concentration time span and students frequently commented that lengthy sessions were difficult to endure: "My ear felt like a cauliflower at the end of it" (Beth, undergraduate student, Social Sciences, 1988). As another student wrote in her journal:

I still find it difficult to concentrate and at times to hear. eg after holding the handset tightly against my ear for some time, my discomfort acts to distract me but if I move the handset I miss words which are important for my understanding. (Claire, postgraduate student, Social Sciences Journal, 12.3.90)
Recognition of the difficulty to manipulate reference material, paper and a telephone can affect pedagogy as students get a message that note making is unnecessary:

If you can take notes do, but I don't think it's really necessary. You're going to have enough trouble holding on to the phone, I think. (Bev, tutor, Nursing, Teletutorial, 1990)

Where there is no agenda and where students are trying to manipulate printed materials as well as the telephone, students indicated their concern that the time had not been used productively. For instance:

I was a bit confused/flustered because we had no idea what would be discussed tonight so were unable to prepare in any way. Although that probably makes things spontaneous it can also waste a bit of time while people are fishing through papers and readings to find things. Twice when I wanted to bring up an issue I was unable to find the relevant section in the readings. (Catherine, undergraduate student, Nursing, Journal, 3.4.90)

While technical problems do occur, there is some evidence that dissatisfaction in this area can be attributed on some occasions to poor use of the technologies. For instance, complaints of faulty microphones that are faultless on technical inspection can be simply inadequate microphone technique on the part of the user; disconnections can be caused by clumsiness rather than technical failure: see Grace and Thompson, 1989, p27. Teletutorials are a union of technology and people. Irrespective of cause, however, concern with the 'mechanics' is the prime consideration for most academics who are new to teletutoring. Not only does this cause stress, but it tends to override other considerations until there is comfort with how the equipment will be handled and an appreciation of how it will affect the communication it supports.

LACK OF VISUAL CUES

Researchers have consistently found no significant differences for users of audioteleconferencing as compared with face-to-face (see Chapter 2: section 2). Reid (1977, p411), for example, asserted that it had taken "ingenious experimental designs and highly sensitive measures" to demonstrate "subtle, small, and elusive" effects of the telephone medium, with the withdrawal of vision having "no measurable effect of any kind on the outcome of conversation". It appeared, then, that "visual cues were rather less important for turn-taking and synchronization than had been thought" (Rutter, 1987, p126).
Practitioners, however, have tended to react differently. So Muse (1982), drawing on experience with using audioconferencing for professional education through the University of Nevada-Reno, claimed (p28) that "the lack of a visual component posed the greatest restriction to the system and had a negative effect on both the participants and instructors". His concern typifies essentially all of the literature that addresses perceived restrictions. The impetus at several institutions to expand a single channel presentation into a multi-sensory experience (see, for instance, Hancock et al, 1984; McConnell, 1982, 1984; Broadley and Shaw, 1982) clearly evidences the extent of practitioner concern with the lack of visual input.

In an early paper, Short (1974) addressed the problems of teaching without the visual channel when that teaching was done by telephone. Although he acknowledged that, where 'affective' information was irrelevant to the task there would be little effect from removing the visual channel, he was concerned by a number of practical implications of non-visual communication. He drew attention to the lack of information about attitude and reaction, when all the clues of general appearance, expression, posture and gaze direction are absent. Smith's (1984) discussion of the nonverbal aspects of teaching, as well as Galloway's (1984) consideration of the nonverbal in the context of teacher-student relationships, indicate the impact of such signifiers on the communicative experience of education.

* * * * *

Almost invariably, teletutorials are regarded as better than no contact at all, but inferior to face-to-face teaching and learning and the hallmark of that alleged inferiority is the lack of visual cues. Where visual input is integral, the inability of the medium to convey such information is clearly prohibitive and for this reason teletutorials are inappropriate. Even where the discipline relies on spoken language, the lack of visual cues has an immediate effect in that the paralinguistic elements of the communication (gesture, body movement, visual cues) are concealed. If, as Douglas believes (1985, p77), eye motions and all facial expressions are "crucial", as they are "vital clues to the real meaning, especially the still hidden meanings", then the teletutorial is an impoverished communicative experience. As face-to-face is the normal, accepted mode that has formed the experiential base for most people, it is almost inevitable that this will be preferred to audio only interaction.

Interviews with academic staff found that the denial of visual input was almost invariably regarded as a limitation. This is likely to have a pervasive influence on how
they regard teaching and learning by audioteleconferencing. At its extreme it is an insurmountable barrier to participation: "It's no good me trying it. I know it wouldn't work for me, I simply have to look at people I'm talking with" (Shirley, tutor, Social Sciences, Interview, 2.5.90). In some cases those who attempted teleconferencing found their initial negative perceptions were reinforced:

It [audioteleconferencing] is certainly better than nothing but I knew I wouldn't like it and I don't. Because I can't see faces I can't judge how people are responding to what I and other people are saying. It's like having an invisible audience. I can't gauge anything with confidence and find it really difficult. (Lorraine, tutor, Nursing, Interview, 9.7.90)

Accustomed to visual cues to set the pace and tone of their teaching; reliant on body language to guide their interpretation of the session, the loss of vision is assessed as deprivation. For a first time teletutor, the experience which was judged as an "absolute disaster" meant that even the one specific objective she had set herself to achieve was not realised. Not only did she fail to learn any names or locations but she realised "the great extent [she] relied on body language to get and give feedback". Although she was more satisfied with both her contribution and the level of interaction by the end of the year, she was still dissatisfied "particularly with getting to know people by their voices" and concluded that teaching by telephone was "not so satisfying as face-to-face teaching" (Mandy, tutor, Health Sciences, Journal, 25.10.91). In her case, however, the situation was aggravated because 50 students were involved. But, to reinforce the sense that reaction to visual cues varies, a tutor in the same group expressed the opinion that "the idea of talking to people that you can't see" was "really exciting" (Gillian, tutor, Health Sciences, Interview, 27.10.91).

Many students also expressed reservations about the loss of visual cues and Claire chose to express her concern on several occasions in her journal. For instance:

Without visual contact it is very difficult to express my 'confused' understanding (or is that misunderstanding?); no one but me can tell when I'm confused which makes me solely responsible for expressing my confusion to the others. Not a pretty thought regardless of the fact that it is awkward to find the opportunity to say anything over the phone with so many competing others. (Claire, postgraduate student, Social Sciences, Journal, 23.4.90)

and

Pressure to be involved can be stressful particularly when your voice rings in your own ears and the silence from the other participants is psychologically as well as physically magnified. I like to feel confident about what I am discussing and as there are no visual cues to show approval or to warn of topic deviation (on the wrong track) it is a bit frightening to simply talk, without any knowledge of how others are reacting. (Claire, postgraduate student, Social Sciences, Journal, 4.6.90)
She was not the only one to express a connection between lack of visual cues and difficulty with concentration when she wrote:

I found it very difficult to concentrate because I did not have any visual cues. The effect was that I tended to fade in and out of contact with what others were saying. (Claire, postgraduate student, Social Sciences, Journal, 26.2.90)

Further, although such cues as intonation are possibly enhanced in the audio environment of the teletutorial, they are not supported by other indicators such as gaze and gesture. Experimental research has suggested the 'very important' role of gaze during social interaction. Gaze is seen as an important way of communicating intention to continue or not continue speaking (Cook and Lalljee, 1972, p212). Bull (1987), concerned specifically with posture and gesture, concluded (p157) that such body movement "communicates information about listener emotions and attitudes, and provides very specific information about different aspects of speech".

There's definite disadvantage in not being able to see expressions and attitudes. You get tones of voice and that type of thing which can be both negative and positive feedback. (Gerda, postgraduate student, Health Sciences, Interview, 30.7.91)

The only thing I felt whilst I was talking, I didn't know where to end, as there was complete silence. I would've liked a bit more interaction whilst I was talking. (Jenny, undergraduate student, Nursing, Journal, 3.4.90)

For the tutor of the unit that is discussed in the following chapter (7), "sensing how the flow is going and picking up where appropriate" is "the art of teaching" (Bev, tutor, Nursing, Interview 23.5.90). In the teletutorial, knowing when to intervene, when to allow space for reflection, is especially difficult: "I think you get a lot from people from their faces and I haven't got any faces to look at" (Bev, tutor, Nursing, Interview 23.5.90).

While participants may attribute disappointment and dissatisfaction with teletutorials to an inability to see reactions, there is an assumption that if there were such visual input reactions would be conveyed, they would be noticed and they would be responded to appropriately. Observation of the same tutors in face-to-face situations suggests that this assumption is not necessarily warranted. Often proffered responses that rely on body language rather than voice are ignored, facial expressions and gestures are disregarded, tutors ask questions of students busily engaged in note-making. As Cook and Lalljee (1972, p220) concluded, "human communication is very redundant, often very casual, and frequently ignored entirely". Hence, it is false to assume that "every [non-verbal] signal is given deliberately, conveys a vital piece of information and is the
only signal to convey that information, and is anxiously awaited and carefully digested by the listener". Moreover, there is a tendency to hide or disguise inner feelings when such feelings are perceived as inappropriate. One tutor who illustrated her disappointment with teletutorials by saying that she had been shocked to be told that, in response to her session, a student "walked in the garden for hours and hours because she didn't seem to have the same understanding as the rest" believed that this would have been avoided in a face-to-face session because she would have been able to see the student's face. Later the tutor commented about that particular student's reticence - a cue, in itself, that the student was not at ease with the situation - and further remarked on the pressure of her administrative workload that meant she could not prepare adequately for the sessions and is inevitably under stress. Both these factors could also account for why she failed to perceive a particular student's discomfort. There is also an assumption that the student's face would have revealed her inner turmoil. Hence, when visual input is seen as the problem it is instructive to set that perception in context to determine its possible validity (Thompson, 1991b, p288).

It was possible to look more closely at the effects of visual cues on teleconferencing communication as the New Zealand experience had groups who were interacting face-to-face within their own sets, and individuals with no visual contact. To one of the tutors:

Certainly in the group of people that are isolated on their own, you know, people on their own in remote locations, who have to use the teleconferencing mechanism for their discussion, are much slower and halting and there's great big gaps in the discussion and stuff like that. I think that's because they haven't got a lot of visual cues and things. So their discussion is much more slow and halting and less well - you know - obviously operates a lot less well than when a group of people are in the room together. (Douglas, tutor, Health Sciences, Interview, 26.9.91)

While the tape-recordings bear out the perception that the face-to-face groups communicated far more freely than those at remote individual locations, it seems unlikely that this was solely attributable to the presence or absence of visual cues. While there was appreciation that the denial of visual cues impacted on the communication, an interview with a student from a remote group revealed that the issue was far more complex. Her comments (and they are supported by questionnaire and journal entries from other students) suggested that this group lacked a sense of social cohesion and that this was strongly influential and revealed that the organisational structures were especially significant. She said:

Thinking about the small group situation and trying to work out why we didn't really, we really find it very hard to accomplish the exercises set, I sort of realised that you know, that because the majority of us haven't sort of met, um,
that's within the small group - I mean we've got no idea of what, of how each will respond to anything that we say. We don't know what they look like or how old they are, or what sort of personality that they have, or what their values are and, um, so consequently, even though we're meant to be a group we actually are - still sort of - we'll always be sort of a fairly fragmented one, you know. I mean, if you make a comment - I'm inclined sometimes to be a wee bit of a tease, you know. Maybe it's because of my age, I don't know, but sometimes I sort of put out things waiting for just a wee bit of a reaction and I - one doesn't really know, in most cases, how a side comment or whatever has been taken up because there's no body language, no expression, nothing whatsoever, to actually be able to gauge the outcome.

She chose to return to this theme later in the same interview.

I became aware that in the group exercise that we actually didn't get through - as we usually didn't - we didn't get through the list of exercises within the timeframe that we were given and I was analysing it, and I realised it was because our interaction is a lot slower than it would be amongst the larger groups because you know, as you sort of identified yesterday on the phone, they sort of work as a group within a group. They actually have sort of two systems unfolding simultaneously, meaning that they can sort of talk amongst themselves as the tutorial is underway, whereas we in the single group haven't got that sort of contact and, um, conversation as such, or our sort of contributions are on a much less sophisticated level because we really haven't developed our thinking. When the larger groups develop - sort of make comments on the air - they've already sort of thought it out a lot and modified their sort of, their thinking, and probably reorganised it according to the general consensus of the group, whereas when you're in a single capacity, you, you know, the first thing you say is really the first thought that's in your head.

(Janet, postgraduate student, Health Sciences, Interview 25.9.91)

It was generally concluded by teletutors that rapport was more easily created and interaction facilitated where there had been some face-to-face contact. Sometimes students pondered how lack of face-to-face contact could affect how they engaged with their peers and with issues:

I don't know that "the group" and I think along the same lines and maybe if we knew each other face-to-face I'd be more inclined to challenge them on issues.

(Catherine, undergraduate student, Nursing Journal, 21,4,90)

In the following two journal entries a student reflected on the effect such personal contact would have on her next teletutorial.

Tonight's teletute follows the weekend school. It shall be interesting to see if the face-to-face contact will make any difference to the flow of discussion. I often feel that the verbal skills of the other participants are beyond my capabilities. The face-to-face contact has allowed me to experience these 'voices' as people who have other dimensions to their character. In addition, I met other students which widened my scope of comparative reference; in other words I felt less inferior.

It was different. When the various ones who were at the weekend [school] spoke there was a sense of familiarity. The strangeness of talking with
unknown people was greatly reduced. (Claire, postgraduate student, Social Sciences, 21.5.90)

These journal entries convey the impression that for this student, at least, the audio only experience of the teletutorial has restricted her sense of the people who are participants and a much fuller sense of knowing has been provided by the face-to-face encounter. Her perceptions are very similar to those of many students and tutors who expressed a sense of incomplete personal knowledge through the teletutorial: "You never know what their attitudes are"; "A sense of knowing the student doesn't develop"; "A very bad way to get to know anybody - you just get impressions" (Quoted in Grace and Thompson, 1989, p26). The enthusiastic response to a teletutor's suggestion of an on-campus meeting "to see one another's faces" - "It'd be great"; That's terrific. I'd really like that"; "I think it's a fantastic idea" (Teletutorial, Nursing, 22.5.90) - is further indication of how teletutorial participants miss the fuller personal contact of an on-campus seminar. However, face-to-face contact will not invariably be productive nor necessarily enhance later teletutorials. In one instance a personality clash at a weekend school was carried into a teletutorial. The tutor approached the session with definite misgivings and they were conveyed in both his voice and utterance. The student response, which occasionally verged on the belligerent, had an unfortunate effect on the whole session with the call exacerbating the antagonism.

It should not be assumed that having visual contact is inevitably an advantage. While there may be an intent to shield the other from what are perceived as inappropriate responses, body language can betray feelings it would be preferred to hide. Some teletutorial participants expressed the view that it was emancipatory to be able to grimace, scowl, raise a quizzical eyebrow and know that the response remained private. Several students have commented about the sense of embarrassment that has been reflected by their body language when a perceived difficult question or issue has arisen, and their relief because of the security that such messages are obscured from other teletutorial participants. Tutors have felt free to react physically to what they term as aberrant responses, without jeopardising their relationship with the student. While the aberrant behaviour of one tutor who chose to conduct his teletutorials from the privacy of his bathtub is an extreme example, the fact that he could maximise his physical comfort and could ignore his appearance illustrates the sheltered communicative environment of the teletutorial. While conclusions about an individual presence can be drawn from the way language is used, concealment is readily possible. Personal circumstances, race, age, and, to a lesser extent gender, are masked. A student with a severe physical disability found that the 'joy' of the teletutorial experience was that, for the first time in her education, the disability was truly irrelevant to how she was
perceived as a scholar; the prisoner was known and accepted as a student, not as a felon; the elderly student who was "too embarrassed to sit in lectures with young students" could conceal her age. For some students an unseen audience is less threatening:

I always feel a little nervous about responding in the teleconferences - not so much because of the unseen audience but because of those who can watch me in my group. (Heather, postgraduate student, Health Sciences, Journal, 16.7.91)

and

I feel that because I'm by myself I can actually be more honest with the microphone, because I don't have to worry about people sitting either side of me and worrying about what I look like and what they think of me. (Janet, postgraduate student, Health Sciences, Questionnaire, 1991)

The same student from the same cohort referred to an occasion where there were "quite a lot of constructive, heated sort of not exactly arguments but certainly differences of opinion with a lot of anonymous people". She correctly recognised that people atypically did not identify themselves and she concluded they had used the visual anonymity to be more forthright in their opinions - "I think they wanted to speak out" (Janet, postgraduate student, Health Sciences, Interview, 30.10.91).

Hence, while empirical research failed to find measurable effects of any kind on the outcome of the conversation when vision was withdrawn when a telephone was used for information transmission and problem-solving conversations, this research indicates that discernible - if not 'measurable' - effects occur. Garrison and Brook's (1991, p56) conclusion that, although the quality of the interaction was 'somewhat diminished' in audioteleconferencing, no one found it was a serious constraint, is not endorsed by this study. Rather, this research has provided further evidence to support Bates' (1981, p221) sense that different individuals may respond in different ways to different media. It gives credence to Burge and Howard's conclusion (1990, p61) that the effect of denial of vision is inextricably tied to that degree to which participants in audioteleconferencing rely on visual modes of perceiving and processing information or, as Cragg (1991, p49) expressed it, the degree to which teleconference students are 'auditory learners' - and their tutors are 'auditory tutors'.
CD-ROM PRESENTATION

The following chapter (7) has been presented in conventional text and also by CD-ROM.

Spoken data are indicated by the use of a different font: 12 point Palatino.

As noted in the Preface, p7, the system requirements are:

- Macintosh with a 68020 processor or better and an Apple sound chip
- 4 Mb of RAM minimum
- System 6.0.7 or later
Chapter 7

THE TELETUTORIALS: THEMES FROM THE DATA

THE TENSION BETWEEN RHETORIC AND REALITY/BELIEF AND PRACTICE

Talk, when it is serious rather than casual, is as much as it is anything at all a labor of understanding, of listening and interpreting, of clarifying and acknowledging what has been said, and responding. It is an interactionally constituted activity sustained by conversationalists. The form and substance of serious talk is shaped by a dialectic of questioning and answering, and requesting and responding, and explaining and responding. And, in its course, the dialectic of talk realizes the many asymmetries that constitute the dialectic. (Paget, 1983b, p72.)

In the context of the more generalised overview discussion of the previous two chapters, this chapter gives close attention to individual passages. It offers a discourse analysis of four excerpts from the audio-taped teletutorials of the first major case study. The theme (the tension between what is espoused and what eventuates) emerged as the dominant and most significant issue from my listening to the audio-taped teletutorials and also from what the participants expressed both in writing and orally.

ESPOUSED THEORY AND THEORY IN USE

The written text of the Study Guide tells students that "theory in use [may be] at odds with ... espoused theory" (1990, p63). To 'show' students how reflection on practice can be revealing and expose previously unrecognized and unacknowledged gaps between thought and action, the print material draws on the journal experience of the educator. As a reflective practitioner, Bev writes:

I had begun to question my practice and suspect that there might be a difference between what I think and say I do and what I actually do. (Study Guide, 1990, p63)
In comments to her teletutorial students, Bev again reveals awareness that espoused theory and reality may not be in accord. Recalling candidly an experience that led to self-revelation, a self-revelation that she now opens to others, Bev comments that her journal entries disclosed to her that she was not as warm and caring a nurse as she espoused to be.

I always thought I treated people fairly well and always thought I was very approachable. And I thought I was basically the same person off and on duty. But when I looked at er one day when a patient gave me a very spontaneous hug, I was surprised by the warmth of it and when I thought about it, and I looked over my journal, there were other instances when I'd actually distanced myself from patients and it came as a real shock to find the person I thought was Bev, the the person, was actually quite different from B-Bev, the professional. And it's a constant dilemma for me I'm always working through. Um, Bev the person, Bev the professional, and where do the two meet? That's the sort of - I had an espoused theory of being close to people and found in my theory in use was actually distance of, you know, of a certain degree. Not too bad. (Little laugh.) (Teletutorial 5, Round 2, 5.4.90)

In drawing on this instance (both here and in two other tutorials), Bev uses the same incident she wrote about in the print course materials. While this is readily understandable on the basis that this was a critical incident for her, the context of the printed text reduces the impact of this candid sharing. This is not new to the students who have read the material. They are not privileged sharers of an intimate moment. Rather, the material is being reworked (Study Guide, 1990, p61) and foregrounded to reassure them that recognition of such gaps is both normal and healthy. Indeed, the written material, while acknowledging the possibility of damaging consequences, stresses the positive outcome:

This does not become the source of merciless self-flagellation, rather this becomes an exciting awareness through which I can grow. (Study Guide, 1990, p63)

The salient point here is that the tutor, in terms of her professional role as a nurse practitioner, can recognise that what she 'espouses' is not necessarily translated into action. This context makes it probable, then, that a similar situation will occur when the tutor assumes her professional role as a nurse educator.
At the start of this section Bev articulates her pedagogical philosophy, her espoused theory:

Now, what I'll do, rather than me tell you I'll get you to tell one another and if you need clarification I'll come in at that point. Because I really think that we learn from one another. I don't pretend to be a guru here. I'm learning with you and all I'll do is facilitate your thought processes. (Teletutorial 1, Round 2, 3.4.90)

This is consistent with how she expresses such beliefs in other teletutorials. For instance:

I don't for one minute claim to have the answers - and, um, I don't know that anybody does have all the answers - but I can certainly, um, give you some clues or help you with whatever I can. But you basically help yourself, you'll find. You'll find that once you get into it you'll be feeling quite confident, really. (Teletutorial 4, Round 1, 27.2.90)

and:

We're in a joint search for knowledge. I don't put myself up as a smart Alec. Ah, I don't know everything and I continually learn from you. Now, if at any time you think that I am putting myself up as an edifice of knowledge, you've got to say, "Now, Bev, your, your um philosophy says that this is a joint search. Get down off your high horse." (Teletutorial 5, Round 1, 28.2.90)

It is consistent also with the pedagogical philosophy of the Faculty of Nursing in which she is located, as restated in the first chapter of the Study Guide.

We believe that we are jointly participating in the experience of the Bachelor of Nursing course. ... Our hope is that we will be able to examine our collective assumptions to try to reach some corporate agreement as nurses. (Study Guide, 1990, p1)

Despite this consistency in articulating belief, there are tensions inherent in espousing a theory of 'joint' participation, with an implication of equality, rather than the normative paradigm of the teacher as the superior and powerful player. This case study is of students in their first semester of their first unit of post-diploma undergraduate study. Even where the context is that of the postgraduate colloquium, where "graduate students
are in the process of becoming peers", it is contended (Tracy and Carjuzaa, 1993, p189) that equality is unrealizable.

To accomplish equality, as well as "good" intellectual discussion, participants need to treat each other as equals. Each person must have the right to speak his or her mind freely. Yet to the degree that exercising this "right" demands a level of expertise acquired through extensive reading and experience, equality cannot be realized. Thus intellectual discussion among faculty and graduate students cannot escape the tensions between expertise and equality.

Further, in the context of an orientation towards a negotiated classroom, to attempt to impose the 'joint' nature of the experience on essentially unknown and inexperienced students is a high risk venture. Students were aware of the difference time made: "Because we are further advanced in the course we were able to speak more freely about what we know" (Sue, Journal, 7.4.90). As Boomer (1992, p281) recognised, "the less time a teacher has with students, the less rapport, mutual understanding and room for progressive negotiation there is likely to be", for it cannot be assumed that students will know the benefits of negotiation.

Students must be taught what negotiation of the curriculum is, what it can do, and how to do it. If students' question asking capacities in schools have atrophied, they must be revivified and legitimated. If students cannot work in groups, they must learn to do it. If students cannot evaluate their own work, this too must be learnt. (Boomer, 1992, p286, emphasis in original).

Nor can it be assumed that students will necessarily and inevitably respond to the debunking of the myth of the teacher as the expert transmitter of knowledge. As Lester (1992, p136) found, students have a propensity to see university professors in the role of spreading pearls of wisdom with the expectation that they will be consumed and regurgitated. While she found compliance was the norm, she was concerned by the resistance she encountered to take on a critical stance toward learning. Her account of one experience with a negotiated curriculum supported Boomer's contention of the need to ground the theory of pedagogy in careful planning and "the necessity of giving time to learning how to learn" (p141), as well as indicating the difficulties in overcoming entrenched student denigration of student-centred learning in a university program.

**EQUALITY AND SUPERIORITY**

Arguably, any presupposition of equality of power is constrained by both institution and convention. While the tutor may feel comfortable with the language of, "Now, Bev, your, your philosophy says that this is a joint search. Get down off your high horse" (Teletutorial 5, Round 1, 28.2.90) it is highly improbable that any student would speak so forthrightly. While she would expect to be called 'Bev' it is unlikely that the tutor would actually expect, let alone accept, "Get down off your high horse". To
Grimshaw (1989, p13) "the academic situation is made more complicated by a myth of community whereby professionals engage in ... informal use [of address terms] from a first introduction". While address usages are usually a useful index of the nature of social relationships, to conclude in an academic environment that a student's easy use of 'Bev' is as significant as her use of the student's first names and (at times) a diminutive, and evidence of equality, fails to recognize the cultural context. Similarly, what is friendly banter in a truly collegial setting becomes discourtesy or an indicator of resistance and challenge in the institutional context, because the equality of powers is rhetoric, rather than reality; the language use symbolic rather than literal. Hence the failure of any student in any session to respond to the invitation proffered, although there are clearly occasions (as discussed later) where the tutor's language betrays the 'joint search', indicates the students' assessment of the real intent of the utterance and the reality of where they are situated.

Part of that reality is that the tutor is, by virtue of her position, in a powerful position. Her change from the inclusive 'we' to the personal particular 'I' in the following comment is revealing:

And I just thought I'd give you a few little pointers about what we expect. I guess it's me, really. I'm the only person managing the entire unit so I'll talk about what I expect, I suppose. (Teletutorial 4, Round 1, 27.2.90)

Her superior position is especially apparent when the issue of assessment is brought forward. Referring to 'coaching' both the students and any sessional markers, the consistent 'I' gives an unambiguous message of control:

What I'm saying to everyone is that this will not be a fail situation. I see this as a coaching time. These first two assignments, particularly. And if anybody's got real problems in answering the question or they've missed the point entirely, I'll get them to resubmit. Um, there won't be, I won't be carrying any fails on the assignments, I can assure you. (Teletutorial 5, Round 2, 5.4.90)

For one of the most able students in the teletutorial groups (as evidenced by results), recognition of the power of the tutor in her role as an assessor meant that the tutor's discourse assumed a privileged status:
But in a way, you know how you always are keeping aware [Yes] as you study of what the person who's setting the paper for the course is in tune with and you know how they think. Um, and certainly because it's such a different course too to what Nursing courses have been in the past, I think it's been good to hear some of Bev's views. To know um what the School of Nursing thinks and, you know, I mean, we've got it on paper but I don't think that's quite the same thing. Certainly, um, direction with with some readings and things like that. (Catherine, Interview, 22.5.90)

Her comment "we've got it on paper but I don't think that's quite the same thing" is a passing sensitivity to the differences between printed and spoken interaction (see Chapter 5) and suggests the perceived value of direct engagement with the tutor.

In interview, Bev agreed that she was the one who ultimately had to make the decisions and that this was an important power. While she was comfortable with her own role in this regard, she recognised that this could cause anxiety for students: "I know I'm no threat, you know. But they don't know that, do they?" (Tutor, Interview, after Round 2, 6.4.90) Interviews with students prior to any teletutorial experience indicated they were typically apprehensive, uncertain about the course itself and the teletutorial experience - "I'm just hoping I can cope" (Louise, Interview, 26.2.90). As a consequence, Bev strove to convey a non-threatening, helpful persona and the students responded to that. To the student who was the informant for this session:

Bev came across really well. [Right] She's a very knowledgeable person. I wish I had a bit of her knowledge, and she comes across as a very, um, I'm not saying 'layback' but, you know, she comes across as a person that doesn't sort of um make you feel nervous [No] or uptight. (Jenny, Interview, 3.4.90)

Other students from other sessions expressed similar sentiments. For instance:

I feel um very reassured (little laugh) and um yeah I don't think it will be hard as I thought it was, and it was lovely to um put a voice to to the contact person. Yeah. And she sounded um very reassuring and, yeah, it was great. (Julie, Interview, 1.3.90)

Although students had received a personal note and a photograph in the written course materials, this comment indicates how, for many teletutorial participants, the ability to add the dimension of voice to the personal construct was a significant attribute. Further,
the voice register influenced the way the message was interpreted. The descriptors, "warm" and "friendly and warm" were used by another student (Jan, Interview, 28.2.90) and in journal entries: "The tutor sounded very warm and friendly and sounded like someone who was really out to help us and not to mark us critically out of existence each time we handed in an assignment!!" (Julie, Journal, 2.3.90). Bev was consistently described as sounding "very approachable" (Louise, Journal, 26.2.90) and "very, very supportive" (Jenny, Interview, 1.3.90). While there is much that can be seen as pleasant and constructive from such comments, the point remains that, if the espoused theory of equality had been translated into action, such comments would not have been made as there would have been no need for them.

Within the espoused collegiality, understanding comes through both parties offering viewpoints. The entire written unit is premised on dialogue of the academic writers with the students and many exercises are provided that give students consistent opportunities to respond. In some instance to evade the exercise would mean an evasion of any intellectual discussion of the point. Yet this is not the message that students received in the teletutorials. In the context of giving "a few hints on how to catch up in a hurry" (Teletutorial 5, Round 2, 5.4.90), advice is given on setting priorities. The tutor's comments reveal that the student's thoughts are the least significant factor for they can be dispensed with, while it is important to retain the thoughts from the academics, whether as commentary or part of the set reading. So students are advised:

Skim over some of those exercises. It's not necessary to do them all. Ah, it's not necessary to write great reams. Just put a few words beside each, if you want to, or just ignore some if you want to. Um, what I'd like to see you do though is read the commentary in each of the chapters - you know, around the exercises and try and read the readings at the back. If you could do that I think you'll catch up a lot faster and you'll be a lot less er weighed down. (Teletutorial 5, Round 2, 5.4.90)

In this instance, the students get the message that student input is not only onerous - it weighs them down - but it is, in the final analysis, unnecessary. Further in the same teletutorial, in response to a student who has used evocative words such as "bury" and "swamped" to explain her reaction to the "stuff" of the course, the tutor says:

Lynne, can you take my counsel before to to skim over exercises and allow yourself not to become too concerned? I'd rather see you stay
with the unit and with the course than give up because it's all too hard and, um, frustrating. (Teletutorial 5, Round 2, 5.4.90)

When the student replies, "Ah. Oh that's what I'm doing. I'm trying to - Oh, I'm not going to look into so deeply, I think", the tutor's reaction is "That's fine" (Teletutorial 5, Round 2, 5.4.90). While this comment can be interpreted as revealing the tutor's concern to keep students in the course, it can be seen also as endorsement for a less rigorous and more superficial pedagogy.

If student contribution as far as interaction with the print text is concerned can be treated this way, what of spoken interaction? True equality would entail that whatever students bring to a session is as pertinent, relevant - acceptable - as anything the tutor contributes. Hence, while both parties may make judgements about the value of the contribution, neither would use that judgement to privilege one sector. Both the sessions and the interviews indicate that there is a judgement of the value of what the students initiate. On this occasion the students' agenda is judged as acceptable. They are deemed as having prepared adequately for the issues raised are 'academic':

But the content was there today because I er solicited from all of them what their issues were, what their concerns were, and they p-picked out um five main academic areas er that basically knitted together um that they wanted to talk about. Um. So there was um more emphasis on content because I think they're ready for it, having done the reading and having thought through things. (Tutor, Interview, before Round 2, 3.4.90)

Significantly, on other occasions what the students proffer is judged as unworthy. While judgement of contributions does not negate the validity of pursuing a 'joint' activity, when one player uses this judgement to override, and it becomes, as here, an invitation to more overt tutor direction the collegiality has been lost. So:

Um, they they'd picked out issues they wanted to talk about and they were what I'd call domestic issues of how to journal, assignment worries and so on, um and when I did um pull out an essay here and there, I think there was one person really who - er, [a reading] a reading now and then um, there was about one person who really followed what I was on about. I referred them to page numbers to cover any confusion, but a lot of the discussion was um anecdotal
and not really related to the reading. (Tutor, Interview, after Round 2, 6.4.90)

After the completion of the third and final group of teletutorial sessions, the tutor was prepared to acknowledge that the pedagogical theory of a shared agenda, the hallmark of a negotiated teaching and learning experience, had not been translated into practice. There were two agendas and they differed, with that difference creating a "tension". She said:

But I, um, I have a sense that my agenda varies from the students'. Um, I have a want of them to start analysing the readings um and make and make sense of them, but it's invariably me who introduces the topic of readings and what sense they're making of them. Um, it I I know that the support function is important but, um, if I don't at some stage pull the er the discussion back to their analysis of the readings and how they relate to their practice, I find that they stay on domestic issues such as how to do a case study. (Tutor, Interview, after Round 3, 23.5.90)

Interviews with students prior to their teletutorials consistently revealed that their concerns were tightly related to assessment tasks, with what the tutor consistently relegated to "domestic issues". Similarly, their level of satisfaction was tied to how they believed these concerns had been met. The tutor is correct in her perception that links with the set readings were "invariably" tutor generated. Theory was seen as remote and esoteric; assessment tasks were immediate and linked to survival in, yet alone success with, the course. The tutor's evocative phrase, "pull the discussion back" (Tutor, Interview, after Round 3, 23.5.90), is compelling evidence of her perceived need for control and her exercise of authority.

Although consistently seen by the students as assuming a supportive role, the tutor, herself, expressed differing senses of her level of responsibility to her students. On one occasion she said, "You feel accountable somehow, accountable for making it a worthwhile experience for all students" and "You feel so responsible" (Tutor, Interview, after Round 3, 23.5.90). A little later in the same interview she was adamant that she had limited responsibility as far as her students were concerned. Stating that she was not "invincible", she said, "I'm starting to lose my need to salvage everyone" (Tutor, Interview, after Round 3, 23.5.90). While she aimed to have her students
rethink their approach, and hoped to be influential in this regard, she was not prepared to be answerable for what happened with them and to them.

I've actually felt a lot happier in my teaching of nurses now that I realise that I am not responsible for how they develop as individuals. I can only hope to facilitate some some ways in which they begin to think about who they are. I used to think that I was responsible for students' grades, students' attitudes. When a student did something wrong, in inverted commas, I used to think, "Oh, God, what have I done wrong?" But I'm losing that parental attitude to teaching. [You've gone past that.] I'm actually thinking, I espouse they're they're adults, I treat them as adults. Let them fall on their face if they're going to fall on their face. (Tutor, Interview, after Round 3, 23.5.90)

Her rejection of what she calls a "parental attitude to teaching" is a rejection of tutor superiority. Not only does she state a belief in the students assuming personal responsibility for their own successes and failures, but she indicated in interview that the students were more valuable resources to one another if she gave them the opportunity and did not dominate the discourse. To support her contention she referred to an incident in the third group of teletutorials: see Appendix IIa.

The episode begins with the tutor, as customary, taking the role of setting up the interaction. Commencing with a reading, the tutor, after a slight pause of 1.75 seconds, nominates a student, Julie, (9-10) to respond to the question "Do you think that Nursing has to do with intimacy ...?"(5-6). Julie had said "I'm I'm not a person that likes to get really that close to patients though. So I don't like the word 'intimacy' with patients" (14-17). The tutor remembers the incident as one where she stood aside to allow the students to provide their responses:

I'll tell you how I'm improving. There was a person who said - we were talking about intimacy in Nursing - and that int- actually means getting into one's circle and into, you know, interacting in a genuine way. And she said, "Oh she has great difficulty doing that, letting patients see who she is". Now, ordinarily, I'd want to very gently tell her, "Look, have a go!" but I didn't do that. The students did it for her. [No.] It's not my responsibility, I thought. She is at this level of her development and that's her awareness, and that's her perception. And who's to say I'm right because I believe certain
things about my world? The students gave her their experience and I think that was far more valuable. (Tutor, Interview, after Round 3, 23.5.90)

After a 3.5 second pause following Julie's admission it is the tutor who is the first to comment. She asks the clarification/development question: "And what does the word 'intimacy' um conjure up in your head?" (19-20). When Julie states that she feels "uncomfortable when patients ask me questions about myself" adding, "I don't like that" (23-26), it is the tutor, again, who responds by offering reassurance, both by the formulaic "That's fine" (27) and the empathetic acknowledgment that follows:

That's fine. What do the other people think about this particular thing, 'intimacy'? I mean it's a pretty heavy word, isn't it? (27-30)

After a 3.5 second pause Beverley develops the conversation (32-42), drawing on her own experience and ending with the defensive "Does that make sense?" (42-43). Observing the tutor during this session, I noted that, at this stage she had leant forward to reply but deliberately checked herself and waited for a student to respond. After 3.5 seconds Sue does (45-70) and her comment is immediately built on by the remaining student in the group, Jan (71-98). Each student has responded directly to Julie and each has indicated that, as a nurse, she has found it easier than has Julie to share with other people. After the affirmative "Yes" (99) from an unidentified student, Bev by her response, ignores the comments of the three students to assume the role of restatement (100-103). Watson and Young (1986, pp127-128), analyzing the teacher-reaction phase, concluded that at this stage "many teachers quite unconsciously alter pupil responses to fit their own frames of reference". On this occasion Julie's personal admission that she feels "uncomfortable" when patients ask her questions about herself and she doesn't like this (21-26) has been interpreted and re-phrased to become the generalized "it's sometimes difficult to divulge to patients things about oneself" (101-103). With "I mean, I think" Bev moves to develop her own position (103-116) and ask the next question (116-119). This time there is no pause that triggers the need to nominate a student. The student who voluntarily contributes, again speaks of her personal circumstance and her desire for greater opportunities to communicate more with patients (120-138). It would appear that the discourse has led to a modification of the student's initial position. Julie can agree with what her peers have said regarding the influence of training (140-8) but can add:

But, thinking about what the others have said, too, I find it a lot easier to get closer to midwifery patients which is my preferred field.
Perhaps I've got more in common with the patients. I don't know. (148-153)

Analysis of this episode indicates greater tutor involvement and influence than the interview suggested. It does, however, still give credence to the tutor's contention that the students have acted in a supportive manner; for her, the hallmark of a successful teletutorial: "Yeah, it was good. They (the students) were very supportive". Reflecting on her second group of teletutorials, Bev felt that she had "re-learnt" that students were "very capable of knowing what they want and how to go about it and helping one another". She recalled that, in response to the invitation to say goodbye and make any other comments, "the very first one thanked the rest of the group for the way they'd helped her clarify things" (Tutor, Interview, after Round 2, 6.4.90).

The teletutorial, itself, supports her memory:

Tutor [Bev]: Now, I was thinking what we might do now is, starting with Helen, any finalising comments and goodbyes and er we'll go through and er say goodbye to one another. But feel free at this stage to comment on any of the domestic issues I've just raised or anything at all that's happened in this hour together. So, take it away, Helen.

Helen: Um, no, well, look actually, a lot of um, actually just listening to the other girls has really sort of got my brain cells functioning quite hectically at the moment. It's clarified quite a few little gaps. Um, and, um, I'd really thank to them for their contribution. (Teletutorial 1, Round 2, 3.4.90)

From this, Bev continued in the interview to say:

And I've always believed that was what students could do for one another and somewhere you, you, I don't know if you take it for granted or forget about it or what, but I was heartily reminded that students are very capable of doing that and very heartened by it. (Tutor, Interview, after Round 2, 6.4.90)

Considering an earlier episode in the same teletutorial, one of the "scratchy bits that could have been dysfunctional", she said,
Oh there was one one patch during - that was really funny actually. It was when they lost the connection and they had to reconnect Melbourne. We were talking about dominant ideology and I said, "What other relationships are involved here other than doctors and nurses?" and somebody said, "Nursing administrators" and so two of the people had a nice conversation about nursing administrators and how unsupportive they are and a third one said, "Can I get in here? Um, I'm actually a nursing administrator!" (Laughter) And she started calling them "you people" and I thought isn't it a wonderful example - she was saying that she's not er part of the dominant ideology but her language was betrayal betrayal. "You people!" And I thought, well, no, look, I'll let them sort it out. And then we got our connection back and I reiterated basically the main themes of what we'd been through. But, um, so, even though it was generally optimistic and positive all through, there were a few scratchy bits that um could have been um dysfunctional. But I found here here again, as you've asked me what I've learned, I found again that you can always trust students - um mature students, motivated students, people who really want to be there and learn. Well, they will redeem that - I didn't have to do anything to redeem that situation; they they talked to one another and explained why it was they were annoyed with nursing administrators and became more specific, rather than dealing with generalities. (Tutor, Interview, after Round 2, 6.4.90)

To consider whether her judgement of the power of students to redeem a problematic situation is valid, it is helpful to look closely at the actual episode: see Appendix IIb. In the interview the tutor conveys her sense that it is the students who have managed to "sort it out": "I didn't have to do anything to redeem that situation". Listening to her it is reasonable to conclude that, after the potentially discordant utterance of the student who is a Nursing administrator, it is the students, themselves, who resolve - "redeem" - the situation and the tutor has been silent. The text of the teletutorial session shows that this is not the case.

Although there is a strong tutor sense of student power and control in this episode, the opening T stage is clearly the province of the tutor: 7-18. After Jenny's response (19-27) it is again the tutor who asks the next question (28-29). After Jenny again responds, she deliberately seeks tutor affirmation with "Do you agree with that, Bev?"
(42-43) Although the tutor does not evade giving her personal opinion (45), she brings another nominated student into the discussion. For an extended period (47-101) these two students engage in a dialogue that is evaluated by the tutor in the interview as a "nice conversation". The sense that this is now a privileged sub-conversation is reinforced by the student who seeks permission to enter - "Can I come in here?" (102) - and the fact that it is the dominant student, Jenny, who gives licence (103). Jan is allowed to speak uninterrupted for an extended time; 104-142. Her unease is evidenced by her halting speech; a lack of fluency which becomes so obvious that she feels compelled to say, "Oh, goodness! I've become very tongue-tied here" (133-134). As Jan struggles to defend nursing administrators, as the tutor picks up, her very language of "you people" (116 and 129-130) betrays her espoused collegial stance. Significantly, although the tutor then avers that she has withdrawn from the exchange to "let them sort it out" (Tutor, Interview, after Round 2, 6.4.90) at the apparent finish of Jan's utterance, she deflects the content, mood and tone with a procedural detail: "Can I just check if Helen's with us? Helen, are you there?" (143-144). Having expressed her concern for the student who was "missing things" through the bad line connection (149-152), she then recapitulates in an innocuous, defusing way (152-160). Rather than letting Jenny and Lisa respond directly to Jan, she moves the dialogue abruptly with her own concerns:

But I'm actually wondering, where is the patient in all this and how will the patient benefit from nurses being more educated? (160-164)

Her deflection seems even more contrived as it is Helen, who has not been part of the exchange, whom she invites to comment: 164-165. Helen's response picks up the desired 'patient' emphasis and although she ends with "Does that make sense to you?", inviting a response, Bev uses time management to move even further away from the earlier potentially "dysfunctional" incident,

I'm, er - It does. I'm just thinking it's er a quarter to twelve and um I'm aware that we have just reflective processes you um want to talk about, and we we should get on to that, I think. Um, and then there's a few domestic issues I guess you're um wanting to air, so what if we start talking now? And I guess we could get on to reflective processes by asking a few questions. (Teletutorial 1, Round 2, 3.4.90)

ending by referring them to a specific page in the Study Guide. Although later comment in the session does support her claim that the students moved to give specific instances,
they do so after a significant time interlude and very definitely in response to tutor management.

* * * * *

In this section both episodes have been selected because they were occasions where the tutor felt most convinced that the students had been the significant players in the shaping of the discourse. Analysis of the texts of the teletutorials, particularly the second, suggests otherwise. While the students' voices have been clearly heard, the control of each session has been clearly within the tutor's domain. This is not to judge these sessions as unsuccessful in terms of some absolute pedagogy, but to suggest that, even in circumstances where the tutor is most confident of withdrawal, the normative paradigm of teacher superiority prevails.

Having suggested that the equality of adult learners and educators is unrealisable, a related consideration is whether teacher superiority is undesirable. Claiming that "one of the distinctive features of adult education is the equality of teachers and learners" Candy (1987, pp168-169) wrote:

And just as I would be dismayed if a surgeon or mechanic denied his or her special expertise in the name of a spurious democracy, so I would be justified in feeling cheated if, having enrolled in a course of instruction, the instructor suddenly denied that he or she had any special knowledge of the subject, and insisted that I had the ability (and indeed the responsibility) to discover things for myself, to plan my own programme of enquiry, and to identify my own learning goals. ... it is reasonable to expect the adult educator to know (at least at the outset) more about the subject than the learners, and to accept a leadership role, rather than handing over control to the learners and expecting them to identify learning needs in an area which, by definition, they are ignorant, or at least less competent than the instructor.

While students and tutors can engage in intellectual discussion and the teaching role will not inevitably and necessarily be assumed by those designated 'teacher' and the learning role by those designated 'student', it is a mistaken and unhelpful proposition to claim equality in this specific context. Even where the word 'teacher' is rejected in favour of 'facilitator' as "anyone who helps others to learn" (Boud, 1987, p223) the helper, in that instance, is in a superior position to the one helped. To pursue an intent of collaborative learning is not to pursue equality: collegiality and hierarchy are not mutually exclusive terms. What they represent is respect for the position and the rights and the contributions of each person. They do not suggest that on all occasions it is possible or desirable for those contributions to be of equal value. Young (1991, p52) considered the issue in such circumstances was whether the asymmetry of speech role
present in a given situation was "functionally justified". In the case of the university tutorial there is a strong case to condone such asymmetry.

It is not difficult to discern the influence of the Deakin University Faculty of Education on Bev's pedagogy for she had fairly recently completed a Master of Education there. While she had responded to a philosophy that sought symmetry, she was not only unable to realise it in her practice but did not seem to appreciate its inherent difficulties. In contrast, a Professor in the faculty, Kemmis (in Modra, 1991, p92), was at ease in saying:

I share that kind of disillusion with some of those Freirean ideas about dialogue, and the words that are very problematic in there for me are the ideas of symmetry and equality of teachers and students. Even if there is symmetry of some sort of ideal type, it's not describing the relationship that characterises us in real institutional settings, especially where credentials are at stake. Equality in terms of knowledge of the subject and so on is a problem. ... If I offer myself as a guide to curriculum theorising then I'd better know what I'm talking about. ... We're in a process towards that [equal participation in a situation of reciprocity, symmetry and equality] with our students, we don't meet it as an initial condition.

STUDENT CENTREDNESS AND TUTOR DOMINANCE

There is a further tension between an ideology that is premised on a desire to be student centred and a reality that retains the normative paradigm of teacher dominance. The following comment can be used as an exemplar of a tutor who wishes to give students ways of contributing to the agenda and ensures that they have space to fulfil this:

I've basically fulfilled my agenda and I thought I'd give you a chance to make sure you've fulfilled yours. (Teletutorial 6, Round 1, 28.2.90)

However, it needs to be recognised that it is the tutor who has given students "a chance" and that this opportunity is provided in the context of farewells at the end of the session and after the tutor's agenda has been fulfilled. In commenting on a similar invitation in a parallel teletutorial, the student attributed the fact that "no one took that opportunity, really" to comment as "they all felt that things had been covered in the tute" (Catherine, Interview, 6.4.90), reinforcing the sense that the agenda had been drawn strongly from the tutor's domain. However, her comment "it would have been a good chance for people to bring up things that were worrying them" is suggestive that there were other areas that could well have been opened. Her explanation of why this did not occur revealed telling constraints on contributing:
And I think people do feel, you know, that they're going to be on the wrong track [Yes] in comparison um to everyone else or whatever that might be. (Catherine, Interview, 6.4.90)

and there was fear on the student's behalf that they may be seen as "taking control" (Catherine, Interview, 6.4.90).

Similarly, with the invitation to the students to set the agenda in:

Now, um one by one, if you could just say what areas you'd like to cover in this tutorial. I was thinking anywhere between chapters one and six, say. We're now in semester week six, so, as we go through, starting with Helen, just um indicate what you'd like to talk about. (Teletutorial 1, Round 2, 3.4.90)

The apparent student-centredness of the triple 'you' is arguably a further instance of tutor dominance, if in a subdued, qualified form. Here the process has been tutor determined - "one by one", the parameters have been tutor set - "anywhere between chapters one and six". Further, given that the tutor concerned had written the relevant areas of the Study Guide, as well as providing the assessment tasks, what the students proffer as their agenda is naturally and clearly derived from a province that is clearly that of the teacher. Finally, although ostensibly student-directed, its adoption is premised on the students being able to contribute meaningfully, for, if that had not been the case, an alternative strategy of a teacher-imposed agenda would have been substituted.

I I thought, now we've got six chapters under the belt er and there is so many things that could be brought up. And I had a list of things in case they didn't find things. (Tutor, Interview, before Round 2, 3.4.90)

On this occasion, however,

... going through and having them all list what they wanted to talk about was fine. And because they generated it there was an investment in it, rather than me deciding what they wanted to talk about. So I think I'll continue that. (Tutor, Interview, before Round 2, 3.4.90)

The final statement, the "I think I'll continue that", with its teacher centrality and control, is further evidence that in any pedagogical situation it is the teacher who makes
the decision of what direction will be taken. The teacher is the organiser/facilitator. If students are to take initiative in areas such as setting the agenda, this has to be made possible, accommodated - let alone encouraged - by the teacher. It is the teacher who directs not to direct. As Candy (1987, p172) contended:

There is no getting away from the fact that, when an adult educator decides that learners should exert more control over the instructional events than hitherto, he or she is imposing a value just as surely as if he or she had decided not to consult them. From the point of view of the learners, any attempt to ignore or deny the value-laden nature of such a choice may come across as insincere, contradictory or, worse still, hypocritical.

It is therefore understandable that the language of the third episode selected for scrutiny in this chapter (Appendix IIc) reinforces the dominant T of the teacher who is in control for, at the very time there is a move to a more student centred approach, the language is strongly teacher directive: "I'll do ...") (13), "I'll get ..." (14), "I'll come in ..." (15). In the opening cadence the inclusive pronoun "we" has been employed ("We can talk": 1) but this is quickly followed by the personal T in "I think" (3) and the distancing 'they' in reference to students' customary beginnings (4). Here, the "we might just start talking" (11-12) is immediately transformed to the series of 'Ts'. The eloquence of the simple "I'm learning with you" (18-19) is initially reinforced within the same utterance by the inclusive "help er Helen and the rest of us um get an idea of what praxis is" (28-30). Later in the section it is betrayed - "I can give you the answer" (72) and "see if you can make some sense of it" (77-78) - with the implication of teacher knowledge and superiority rather than the espoused collegiality.

The emphasis of the word 'really' in "I really think that we learn from one another" (16-17) almost acts as a disclaimer. There is a sense that this is a response to an implied utterance; that it defends the stated belief of learning from one another against those (at institutional, faculty and student level) who would discount this with the normative claim that students learn from their teachers and teachers do not - and are not there to - learn from their students. There is a significant difference between the unmodified direct 'I think' and the sense that this needs to become 'I really think'.

While the tutor perceived that, in this instance, the students were the dominant players in setting the structure, analysis of what eventuates in the episode dealing with one of the five points chosen is quite illuminating.

Five points form the ostensible structure: 'praxis', 'paradigms', 'positivism', 'dominant ideology' and 'reflective processes'. Drawn from the students' nomination of issues to
discuss, they appear as linear and clearcut. But the teacher's utterance shows that there is a disturbing circular element whereby seemingly discrete instances are linked. So, we find that the first instance, 'praxis', is immediately linked with the last, 'reflective processes', for "the notion of praxis ... has to do with reflection" (20-22). Indeed, before the five points are outlined, students have been told that they will talk about "reflective processes and journalling all in one" (1-2) and so tasks and concepts have been integrated. The plane of content and the plane of process have been collapsed and have crossed over in a relatively confused fashion. Hence, what appears initially as a clear structure is linked in complex and subtle ways that are presumably clear in the teacher's mind but are left as clouded and even contradictory in the minds of the students. The situation is aggravated because the 'tele' aspect denies the normal face-to-face teaching strategy of listing such a structure so that it can be seen as well as heard. The students have to rely on the language cues to grasp the structure and diagrammatic support to map the conceptual linkages and emergent structure is impossible. Abstractions must be handled abstractly.

That the students are unable to respond adequately is clearly apparent as the episode develops. None is able to engage with "what praxis is" (30). An acceptable evasion strategy has been established by the tutor at the beginning of the session, and restated here - "If you have nothing to say, just say 'Pass'" (26-27). Although the tutor believes that students "were unwilling to say 'Pass'" (Tutor, Interview, before Round 2, 3.4.90) the first student resorts to that. The second, in taking the same option, reveals, as does the third, that she is reliant on what she has written down and, when she cannot locate this, she cannot undertake any response to the question.

It is probable that what has been read and noted has not been known, in the sense of understood, for neither student can recall anything, yet alone articulate what has been read and take the written material of the Study Guide and make it her own by using her own language. This impression is reinforced by the way in which the students engage with 'praxis'. It is the tutor who speaks the word. The students speak about it. In this episode the tutor speaks 'praxis' thirteen times (5, 6, 21, 30, 64, 69, 98, 103, 107, 116, 119, 130 and 146); the students twice (38 and 149). For the students 'praxis' becomes 'it' (33, 34, 42, 44, 46, 47, 80, 87, 132, 136, 137) and 'that' (31). It appears that the students are not at ease with a concept that is alien to them. There is a kind of deferencing here: 'it' is the other. The tutor has the knowledge, has the pedagogic authority and is at ease in naming the word. Hence, this instance illustrates that, when there is a word that is part of the language of the discipline, lack of comfort and
familiarity make it highly probable that the word will be distanced until the students come to own it and - in Bakhünian terms - it is internally persuasive.

A second possible explanation for the paucity of the student response is that the printed text has been an inadequate learning vehicle for these students. This impression is reinforced by their decision to bring this issue forward. Here it is helpful to consult the text of the Study Guide.

"Praxis and theory-in-action" form the final section of a chapter prepared by the tutor with the title "Through self reflection". On the issue of 'praxis' students are referred to a single reading, a conference paper, "Emancipation Through Praxis: The Reflexive Relationship Between Theory and Practice" (Brown, 1989, Study Guide, 1990, pp137-148). They are then informed, "In order to tease out and clarify some of the central concepts we will examine (the) reading" (p65). That 'examination' takes the form of four questions:

- What is Friere's concept of 'praxis'?
- Is there, or could there be, such a thing as 'nursing praxis'?
- How would it be realised in nursing?
- What purposes would it serve? (Study Guide, 1990, p65)

Students are advised to reread the relevant sections of the Study Guide if they are "experiencing difficulty". As these relevant sections remain unspecified and there is nothing directly related to the concept of 'praxis' this advice is unhelpful.

It appears, then, that 'praxis' is a legitimate area of concern for students in that it is raised in the printed course materials and has been covered sparingly to the point of inadequately. The tutor's approach to such a situation is "to have people find their own understanding" (Tutor, Interview, before Round 2, 3.4.90) by drawing on peers to attempt to furnish answers. This is consistent with her stated position of not being seen as the "guru", and with the "joint search for knowledge" that has been espoused. So, recalling this session, Bev said,

Now, for instance, they asked me "What is 'praxis'?", "What is 'paradigm'?", ah "What is 'dominant ideology'?", and "What is 'reflective processes'?" and when it came to [Did you answer you answer them?] No way! I said, "You know it, you you're going to help one another". I said, "I'm just here to facilitate and give you a few clues". (Tutor, Interview, before Round 2, 3.4.90)
This approach becomes problematic for all parties.

Recalling a session that had proved a "struggle", Bev said:

Yes, I had a real dilemma last night because of - my tendency is to have people find their own understanding, give them clues - [Yes, that's right.] And I even had them looking at a page. I referred them to the page, I referred them to the section, and I asked them the difference between 'espoused theory' and 'theory in use' and even I assume with the page open they still misunderstood what it was. So what I tried to do was to build on what people had said, to to affirm their own statements, but, in effect, no one really got um got the differentiation between 'espoused' and 'theory in use'. But, um, that puts me in a dilemma as a teacher because I think, um, I think to leave them go with a misconception is is [You can't] dangerous and it's also frustrating too to say to them, "Oh well, you'd better go away and think about it a bit more". I think that's fine if you're in a classroom situation [Where you've got - overlap]. (Tutor, Interview, after Round 2, 6.4.90)

For the tutor, who here specifically separates the pedagogy of the teletutorial from that of the conventional classroom tutorial, there is both dilemma and frustration. Because teletutorial sessions are few in number and there are extended gaps - here six weeks rather than the six days for on-campus students - it is especially unhelpful to leave students without providing some sense of resolution. The problem is compounded in a pedagogical context that seeks such resolution through the students rather than from the tutor. In this instance the tutor has assumed that the necessary information is on the page of the printed text material and/or in the words of the teletutorial; that the misunderstanding and failure to differentiate between the two theories is attributable to student inadequacy. Hence, her attempt to "build on what people had said, to affirm their [ie the students'] own statements" was inevitably going to be unproductive. Should the tutor, then, actively withhold? When, and to what extent, should the tutor intervene, to "give [the] few clues"? For Bev, while expressing her view of educational practice by stating that she knows "it's an educational process that the teacher's non-directive, that she's not there to supply answers ...", intervention is justified if and when the students cannot sustain the discussion: "I think that application is needed, especially if you can throw in a link somewhere where the chain's broken" (Tutor, Interview, before Round 2, 3.4.90). 'Clarification' is needed when issues remain "blurry" (Tutor, Interview,
before Round 2, 3.4.90). Students cannot be left with 'a misconception' (Tutor, Interview, after Round 2, 6.4.90). However, if the teacher is inevitably seen as the inevitable and ultimate source, there is a perceived danger of student reliance on this:

The only thing I remember reading somewhere in my education studies that if the teacher then gives solutions at the end, students learn to wait for the end for the solution. (Tutor, Interview, after Round 2, 6.4.90)

From the students' perspective, the issue becomes problematic when students feel that they are left to confirm one another's inadequacies and that there is no progress towards further understanding. The normative paradigm of teacher dominance is as true for the students as for the teacher. This has coloured the learning experiences and framed their expectations. They frequently express disaffection if they feel there has been an abrogation of roles and the tutor has failed to 'deliver', relying on the students to work through the issue to resolution with minimal, if any, assistance.

Jenny, a student in the episode being discussed here, was asked directly if she was "happy with how [she] got answers to [her] questions". Her response with its contradiction symbolises what is happening here.

Oh yes and it it wasn't always Bev answering the questions, even though, you know, she always did. But er it was it was the interaction of the other people, of the other pupils, which I I found extremely good. (Jenny, Interview, 3.4.90)

The exchange continued with:

Right, so instead of giving you an answer as such Bev encouraged other people in the group to think about your questions?

That's right.

Is that a fair comment?

Yes. (Jenny, Interview, 3.4.90)

and:

Now what's your reaction to asking someone a question and having the question put back at you?

Oh, no, I think that that's good because, you know, I had told her that I had a feeling that I knew what it was [Right] but I wasn't a hundred per cent sure.
So you'd prefer that than some- Because it gave you a chance then to test your own knowledge?

Oh, yes, yes. I think, yes. (Jenny, Interview, 3.4.90)

Returning to the episode, Jan's reaction suggests pressure - "my mind's a total blank" (39) and Helen indicates that this is a concept that demands more time for reflection: "I'll have to have a think on it. I'll have to pass for the minute. I'll have to sort of sit down and really think." (79-82) The one student who finally does attempt to address the question, Lisa, is not only tentative - "I would say" (85) - but returns to the opening that the tutor has provided. Bev had started with "the notion of praxis ... has to do with reflection" (20-22) and, while Lisa adds the dimension of 'action', she cannot proceed far: "I would say that 'action' and 'reflection' are important words in it". (85-87) Clearly, the response is not fully satisfying for, despite the affirmatory "Yes, reflection is a very important element" (88-89), which restates the centrality of reflection, the student initiated point of 'action' is ignored and there is effort to push the student further along a line where the teacher obviously has a known answer: "And there's something that happens because of reflection. Can you see what it is?" (89-91) Here Bev is applying her stated 'tendency' "to have people find their own understanding, give them clues" (Tutor, Interview, after Round 2, 6.4.90) and Lisa, after a relatively short pause of 2.5 seconds, comes up with: "Well, the liberation. Liberation of the education bridging the gap between education and practice" (92-94).

In her response she echoes an earlier comment by Helen: "Ah, basically, um through education comes liberation. Make sense to you?" (Teletutorial 1, Round 2, 3.4.90) which has been reinforced by the tutor: "Yes, I think you want to talk about the idea of um liberation and praxis in education" (Teletutorial 1, Round 2, 3.4.90). But Helen's uncertainty has been conveyed by the defensive "Make sense to you?", the slight laugh at this stage and her admission that she is unsure whether praxis is a concept and that she is "a little bit confused at the minute" (Teletutorial 1, Round 2, 3.4.90). This is the context of the tutor's affirmatory "That's right" (95). This is a qualified assurance for there is a perceived need for amplification (95-96) and paraphrase: "So ... what you're basically saying ..." (96-100). In an attempt to clarify further the tutor moves to an analogy, one that is drawn from the shared culture which allows a connection of the microcosm of self to the macrocosm of the "social world". The illustration is transposed to the confident conclusion: "So that's what 'praxis' is ..." (107). To this is appended the ostensibly reassuring "and you basically knew it" (107-108). The tone of Helen's "Yes, simple" (109) reveals scepticism and belies the affirmation assumed in the "Yes". The exchange is further eroded by the inherently contradictory development
in the next tutor utterance. Presumably designed to reinforce that it is all "as simple as it can be" (115), there is a stated understanding that words such as 'praxis' "aren't easy" (117). Earlier in the episode the tutor has included 'praxis' in a short list of "pretty dense words" (54-55) which have been "generated from German philosophers" (62-63). Here students are receiving two inherently contradictory messages: 'praxis' is a notion that is simple to grasp; 'praxis' is a difficult concept to understand.

In terms of modality, 'notion' is different from 'concept'. More informal, more tentative, 'notion' is less abstract and less academic than is 'concept'. In this session, the more academic 'concept' is used only by the students: two of them use the word seven times. Its use by the first student is very tentative:

Um, the one thing that I'm really interested in, er, is just the er, um, the concept - Look, the one thing that I'm really interested in is the um concept of praxis, or the process of praxis. (Teletutorial 1, Round 2, 3.4.90)

The second student, while discussing the "concept of paradigm", states that she is "trying to get some concept of what it really meant". She links the word a little later with framework and the discipline of Nursing when she speaks of "making an example. um, like a framework, a new concept of Nursing" and, moments later, employs 'concept' again in connection with an unclear 'it' - "I think it would be a wonderful concept" (Teletutorial 1, Round 2, 3.4.90). Hence, although the students choose to use the term, neither user reveals precision or confidence.

In contrast, the tutor consistently prefers 'notion'. In each case the word 'notion' is coupled with the term being discussed: on two occasions this is 'praxis', on the other it is 'paradigm'. From this instance it seems that students want to be seen as academic and so there is a tendency to use more academic terms: so 'concept' is used rather than 'notion'. Language use is a further tension as far as the tutor is concerned. It is discussed more fully in the following section of this chapter: Part 4.

As there is some ambivalence with the use of language, the implied security of "So that's what 'praxis' is and you basically knew it" (106-108) is undermined by the implication that there may be need for further clarification in the invitation to students (118-119), and the tentative "wondering" (130) and "might" (131) when one student is brought into the discussion. That student's mind has been more on the practicalities of not having her study material with her (122-128). She begins with a hesitative "I, I think I know - I had a feeling it was something to do with practice" (132-133) and
chuckles at her own simple (if dictionary antithesis) connection of the words 'practice' and 'praxis'. She takes confidence from drawing from the tutor, as acknowledged source: "But, I, as you said ..." (135-136) and "As you said ...", (139). She adds "transitional form" (138) to the discussion but her contribution is essentially limited to a simple restatement, revealing a vague and general sense that remains closer to a "feeling" (132) for the word, her starting point, than an understanding of the concept. The tutor again begins with the affirming "That's right" (142) and attempts to focus with the qualifier "organised" (144). She then moves to a directed question, again "wondering" about the student's reaction, as she attempts to link theory with practice: "Now, I'm wondering, um, Lise, have you any idea how praxis might have any relevance at all to Nursing?" (145-147) The question is phrased in such a way that a weak student can grasp the double "any" as justification for a limited response, but more able students would possibly be uncomfortable with the implication that they would have to struggle to make a fairly obvious connection and grope for "any idea" (146). The student asked is the one who had made the first effort to respond to the question of what praxis is (85-87). This time there is no hesitation and she responds fluently (148-154).

Her response is similar in vein to the conclusion of the written Study Guide.

The concept of ... praxis (was) introduced to affirm the belief that reflection on action and on the contextual determinants of practice can lead to the transformation of the practitioner and the practitioner's worlds. The message is optimistic. Reflection can lead to change. (1990, p66)

As with her written teaching material, Bev is satisfied to deal with the issue briefly and simply. After the customary affirmation "I'd agree with that" (155) she asks students if they would like to discuss it further or "move on to the next thing" (155-157). The phrasing of the question and the brief pause for student response (3 seconds) both signify that the matter has been resolved satisfactorily as far as the tutor is concerned. Silence is always an ambiguous signifier, but here it is interpreted as meaning "Move on" (158-159). Given her concern with the group who wished to discuss domestic issues (see earlier quotation) there is some irony here that it is the tutor, herself, who brings 'domestic' issues forward at this stage in the context of time and task constraints.

Towards the end of the teletutorial, 'praxis' is revisited as part of the summation. Here, and very typically, the tutor dominance of the conversation is marked as it is her language that locates and sets up the key definitional stages. She uses her perceived role of time manager, "gatekeeper", to enter the discussion after three of the students have
been involved in a lengthy exchange where they vent frustration at aspects of their practitioner lives. It is her desire - "I was just wanting" - that sets up the reiteration.

Um, I'm looking at the time, now. You you'll find that I’ve got to keep track of time, um so I'm sort of the gatekeeper. And, I was just wanting to reiterate what we've been through in this time together. We've talked about and clarified the notion of 'praxis' and said that when people reflect on their worlds they have the ability or the potential for bringing about change. (Teletutorial 1, Round 2, 3.4.90)

The interview indicated that the move to reiteration was purposeful: to provide "finalising minor definitions" to give a general clarification for anyone who was still uncertain (Tutor, Interview, after Round 2, 6.4.90). This was seen as shielding struggling students from the embarrassment of further admission of difficulty and as a way of providing resolution. While the summation is apposite and succinct, it is of some concern that what is seen by the tutor as a "very brief definition" (Tutor, Interview, after Round 2, 6.4.90) is a restatement of almost the entire discussion, with the only significant omission being the qualifier of 'organised' that the tutor had introduced (144).

Before concluding discussion of this episode, a useful approach to bring to a discussion of equality versus teacher dominance, is an analysis of the episode using the I (Initiation), R (Response), E (Evaluation) framework: see Chapter 3: section 4. Within the espoused pedagogy of mutuality it is reasonable to expect that the power invested in the role of initiator will be shared between tutor and students; that it will not be inevitable that it is the tutor who, for instance, introduces topics, generates organizational structures and asks questions (the 'T' role); while it is the students who follow the topic introduced, conform to imposed organizational patterns and answer questions (the 'R' role). As the evaluation (the 'E' role) is integral to supporting the teacher as the dominant factor, in a pedagogy that deliberately seeks to downplay the teacher's determining role, it is logical to expect that this role will be assumed by students, as well as the tutor. Further, as Rogers and Roethlisberger (1952, p47) proposed:

... the major barrier to mutual interpersonal communication is our very natural tendency to judge, to evaluate, to approve (or disapprove) the statement of the other person or the other group.
Moreover, where equality is the premise of the interaction, an analysis of the interaction pattern of the discourse should reveal complex dynamics and peer exchanges, rather than simple adjacency pairs of tutor/student.

In this particular episode, the 'T' role is assumed by the tutor on five occasions: 1-30 with the addition of 41 with 49-50 and 53-78/84; 89-91; 118-121 with 129-131; 145-147 and 155-164. That the opening initiation needs development and reworking is a product of the limitations of the responses: 31, 32-35, 36-40, then 42-45, 46-47 and 51 followed by 79-82 and 85-87. In this first subset, the 'E' role becomes assurance by the tutor (41) and then affirmation of correctness by a student (48). The student is affirming a basic point, locating material on a specified page. The first evaluation of any substance is made by the tutor: "Yes, 'reflection' is a very important element" (88-89) and this leads to the second initiation (89-91). After a response from one student (92-94) there is a more extended 'E' stage (95-108) where the "That's right" (95) becomes the introduction to recapitulation "so ...what you're basically saying" (96-97) and resolution: "So that's what 'praxis' is and you basically knew it" (106-108). One student, by tone more than content, provides an evaluation of what the tutor has just presented ("Yes, simple": 109) and, by her comment, takes the role of initiator at the same time, for the next tutor utterance (110-117) is clearly a response to what she has said. This is an occasion where a written dialogue would probably have remained ambiguous in intent. Here, because the tutor has heard the tone she appreciates the implied message and can shape her response to it. Hence, as well as picking up the key word 'simple' (115) she explicitly shows that she recognises the satire of the comment; that it is not simple: "I, I understand that" (117). The next initiation (118-119), again by the tutor, becomes awkward for, after no student responds to the general invitation, the tutor imposes both the question and the need on one student: "I think we're up to Jenny" (120-121 and 129-131). The student responds initially by changing the direction. She begins with an apology: "Well, I'm sorry, Bev" (122). Given the turn-taking that has been imposed on this group (discussed below) it is probable that she is apologizing for her failure to conform to the guidelines; her mind had been elsewhere - on her personal frustration of making an incorrect decision regarding bringing study materials to the tutorial. The reassurance comes by both tone and statement. The use of the diminutive: "Don't worry about it, Jen" (129) and the transformation of the generalised "does anybody else" (118) to the personal "I was just wondering are you clear ..." (129-130) make the moment more intimate. At the same time the student is reassured, the tutor restates the direction she wants the conversation to go and the student then conforms to this (132-141). The 'E' stage is again taken by the tutor (142-145) who uses this as a time to affirm, restate and amplify. There is a sense of closure here for the next
initiation (145-147) opens a new line. This time a specific student is targeted and again the diminutive is used. After this response (148-154) there is a further evaluation by the tutor "I'd agree with that" (155) followed by the final initiation in this episode which closes this section (156-164).

As far as the interactional pattern is concerned, analysis indicates a high preponderance of adjacency pairs. Inevitably the tutor is the locus of the discourse and on the two occasions where students speak consecutively without tutor intervention (31-40) and (42-48) they are involved in parallel exchanges in response to a tutor opening. (The extent to which this is typical is discussed below.)

Working through the episode in these ways leads to the conclusion that, on this occasion, despite a desire to adopt a different approach, the normative paradigm of teacher dominance/control has occurred. Even on the one occasion where it is possible to see a student assuming the T role with "Yes simple" (109), this remark is not clearly directional as far as the sequence of exchanges is concerned. At each of the other T stages, the tutor asks questions and sets up what will follow. Here, it is because the tutor chooses to pick up the tone of the comment that what is essentially an 'E' remark leads in to the next tutor utterance. Throughout this episode it is the tutor who has shaped the exchange in pattern and content. As well as forcefulness her words dominate in number: the one tutor has 98 lines; the four students share 66. This is not the desired situation, for, in setting the context for the second round of teletutorials, the tutor has indicated to students that the intention is for them to speak most:

And what we'll do in teleconferences from now on is to, um, use it as more of a tutorial session where you do most of the talking and I just sit back and er put in a word here or there if I'm required or if I want, or if I'm burning to say something myself. I'd like it to be that you do most of the talking from um here on in. (Teletutorial 4, Round 1, 27.2.90)

Conversation is a binary of speech and silence. Although frequently overlooked, lapses in conversation are a significant phenomenon: see Chapter 3 section 4. The extract we have been considering (Appendix IIc) is taken from the first teletutorial in the second round of sessions. It is especially instructive to consider the periods of silence in this teletutorial [referred to, for convenience, as A] as it is the one occasion where there has been a deliberate intervention in the structure of the discourse: a decision to nominate speech order and then retain the established cycle for student utterances. A significant
motivation has been a perception that there had been difficulty in managing the conversation dynamic in an audio-only context and that, as a result, there had been extended periods of unproductive silence. Discussing the speech protocol 'experiment' the student informant for this session also considered it was justified given the first experience: "the last time with the first tutorial I think there were long stretches of silence too because you sort of wondered who was - we were all afraid of talking too much" (Jenny, Interview, 3.4.90). However, analysis of lapses in that particular teletutorial (as well as the other four transcribed from the first round) does not support such a conclusion. In the 42 minute session there are only six lapses with two significant pauses (3.5 and 3.25 seconds): a total of 17 seconds or 0.67% of the time. In contrast, in this 51 minute session there are many more significant pauses (fifteen), the silences are greater (here, the longest is 16.5 seconds and the average is 5.78 seconds). There is 1 minute 36.5 seconds of silence, in percentage terms 3.15% as compared with 0.67%. Further, student comments revealed that such an approach could trigger reticence as readily as response:

I think perhaps er we were a little bit too hesitant perhaps even to sort of, you know, we were all wondering which turn it is even though Bev did really explicitly say she had formed a design and we had I had the names all down. But a couple of times I forgot it it was my turn and so there was silence. [Well -] A couple of times I could have said quite easily certain, you know, something but I was too too afraid of saying too much. And there was dead silence anyway, so I could have said it. [Right, I know: overlap] Just because I felt it wasn't my turn. (Jenny, Interview, 3.4.90)

On this occasion, the tape-recording of the teletutorial evidences that the student perception that she forgot her turn and so caused a gap in the discourse was well-founded. It is impossible to verify in the same way that there were other occasions when she would have participated but felt constrained because it was not her turn.

The tutor's decision to impose a speech protocol is communicated at the very beginning. While put as a 'suggestion' the immediate application of the idea sets the strategy as a command.

This is Bev Taylor. Welcome back again. Hello. Now it turns out we've got one, two, three, four, five people, from what from what I can calculate, and according to the feedback last time it's much better if we have an order of speaking. Um, so I suggest that we talk -
When we have discussions that, if you've got a comment to make um, if you've got um a list in front of you it should read: Helen, Jenny, Lisa, Ethel and Jane. Now, when we're in a discussion type situation if you could talk in that order and if you have got no comment to make just say "Pass" and the person after you knows that they can make their comment next. I, I think that might work better 'cause I had the feedback that some people are sitting there not knowing if they should speak up or not. So welcome to semester six* and I hope you're sitting comfortably and er ready to talk about the unit. Now it might be good if you go through and just say your name and the town and state you you come from. So if you start, Helen, Helen. (Teletutorial 1, Round 2, 3.4.90)

In the context of student centredness/tutor dominance of the situation, such an approach is explained as stemming from student feedback. Although the student informant for this session may have a memory of being asked - "I think that she asked" (said twice) (Jenny, Interview, 3.4.90) - the teletutorial itself indicates that the strategy was imposed by the tutor with no invitation (either when introduced or throughout the session) for students to comment on it. Moreover, while it may have been stimulated by student feedback of uncertainty of when to speak, there is some uncertainty about the provenance of the idea. To the student informant "it seemed a bit of both" (Jenny, Interview, 3.4.90), indicating successful negotiation between tutor and student. The way the strategy had been presented to her makes this a reasonable conclusion. In contrast, in the interview in the context of a 'problem' and a failed experiment, the tutor indicated that both the stimulus and the strategy were student inspired:

One of the students last time suggested that she didn't have - know when to talk and she was being polite and holding back. And she suggested that we order them, so "Jenny, Max, blah, blah, blah" and so people knew when they were to talk and if they weren't going to talk they'd say "Pass". Now I tried it and it was awful. (Tutor, Interview, after Round 2, 6.4.90)

Irrespective of the source of the idea, the decision to apply it was the tutor's and, by its regulatory nature, inevitably reinforces tutor dominance through the process it establishes. The consistent attempt of the tutor to enforce it provides even greater

* After repeated listening to this tape it appears that the reference to semester six is a slip. These students are in the first semester of their study and it is the first semester of the university year.
reinforcement of her control of the discourse. That the situation has arisen and the way in which it is handled furnish further evidence of the mediation of the technology and its effect on pedagogy.

The first time the order was used the tutor considered it necessary to name each student and to repeat the instructions after the first 'round'. After Helen's next response there is a 3.5 second pause after there has been a definite closing: "Is that it?" (tutor); "Yes, indeed" (student). Bev again has to prompt: "Jenny?" and then "Lisa?" and moves to Jan before Lisa has completed her comment. In the extract considered above (Appendix IIc) Bev again feels the necessity to repeat the order and does so twice at this stage (23-26). The discussion is not advanced by this forcing mechanism (31-40) and for the first time the students speak 'out of turn' with Lisa's action of finding the page motivating her to volunteer the information (46-47). After the closure of the answer to the tutor's question seeking a page reference (49-51) there is a considerable pause (7.75 seconds) before the tutor develops the exchange (53-78). After Helen is forced to "pass" (79-82) - again she is nominated by the tutor (77-78) - there is a very considerable pause of 16.5 seconds that Jenny, the next in order, does not break. She recalled this in the interview saying that she had forgotten it was her turn (Jenny, Interview, 3.4.90).

Looking at this, the most extended pause in [A], reveals that it is simplistic to analyse turn-taking and attribute failure to set up the next stage of the discussion solely to the interactant who speaks immediately prior to the gap. While Helen may have failed to respond adequately she has been informed that "Passing" is legitimate and her response has been engineered by the imposed speech protocol. The fact that the silence is allowed to continue for as long as it does furnishes compelling evidence of the tutor's preparedness to allow space for students to formulate a response, although it is reasonable to anticipate that the students and tutor are waiting for the one student, whose turn it is to respond. When Bev finally speaks, it is, however, not to prompt the next person, Jenny, but to offer a general invitation - "Anyone else like to um lead in?" (84) - and so the turn-taking is dispensed with. Here Bev abandons the turn-taking with a general invitation: Lisa responds and there is an exchange between that student and the tutor (85-108). When no one responds to the tutor's next opening - "Does anybody else want further clarification on 'praxis'?" (118-119) - by attempting to resurrect the order after a 4.5 second pause with a directive to Jenny (120-121), she imposes the need on that student, who, again, has not been aware that it would be her turn and admits that her attention had been deflected. Somewhat ironically, a little later in the session where there are two unspecified requests in close succession - "Do you know about paradigms anyone?" and "Can you elaborate more, anyone?" - it is Jenny who chooses to respond.
As the session develops the tutor usually follows her stipulated order, but usually has to nominate. Where the context is supportive (for instance, after an extended comment that raised many issues) such nomination does lead to immediate response, but it should be appreciated that there are many instances where the turn-taking has been smooth without any such regulating device. Further, where the opening is more problematic (as in the case where a student is asked to evaluate a peer explanation: "Is that right or wrong?") it is likely, as happens, that nominating the next student in sequence will generate a pause rather than comment. By the middle stages of the session the students are becoming confused. In response to the tutor’s question of "Um, what sort of people in the world, do you know of, who would subscribe to this way of looking at things?" the student who has previously commented, and so can legitimately see that it is appropriate for her to continue the exchange, is conscious also that now she is not the next in line and so deflects the development of the argument with the procedural "Are you talking to Lisa, or anybody?" The tutor response of "It can be Lisa, or Jan if we keep going in the circle" proffers uncertain direction and neither student responds, thus causing an extended lapse of 8 seconds. Bev then indicates her preference with a direct comment to the student who would have been the next nominated speaker. "Beep it out if - or say 'Pass'". Jan does respond but is defensive: "That that's very unclear". This extended 8 second pause suggests that, while the uncertain direction of the utterance leading to the gap is significant, the way in which the stimulus is couched, as well as its cognitive demands, are relevant issues. The context for the "this way of looking at things" for these inexperienced first-year students has been tutor reference to the "so-called 'positivistic paradigm'" and "the 'empirico-analytical paradigm'.

From about the mid-way point, although the order is retained by tutor nomination of each speaker, the utterances tend to be much longer and more fully developed (compare Appendixes IIc and IIb). Helen is the exception. As nominated first speaker (for all occasions but one when Bev sets out the sequence) she has been arbitrarily placed in a demanding role and her situation is more problematic because she was difficult to hear and had difficulty, herself, hearing to the extent that the tutorial was disrupted by the operator to allow her to be re-connected, a further indication of the possible obtrusive effects of the technology. Although it is a plausible interpretation that her "I can't hear you very well" has been used as a convenient and face-saving deflection, "patchy" sound was mentioned by the tutor from the very start of the tutorial and, after re-connection, the tenor and length of Helen's contribution reveal greater assurance and ability to articulate and develop ideas. About three-quarters of the way through the session the attempt to enforce turn-taking seems to have been abandoned: "If anybody wants to, um, make a comment, go ahead and comment" and the exchanges flow quite
smoothly without extended gaps and with greatly increased voluntary participation. It appears, however, that the tutor has not quite let the idea go for after a 5.5 second pause she says, "I was waiting to see if Jenny [the next in order] was going to pick it up then" and she repeats both the original instructions and the order. On this occasion, however, although she states that "we go Helen, Jenny, Lisa and Jan" it is Jan she nominates. Although this is logical, given that Lisa was the previous speaker, if students were not closely monitoring the order - and this could well deflect them from concentrating on what was being said - they could have been confused. The sequence is then maintained to the end. For the first time it seems the students have become accustomed to the approach and they follow one another smoothly without tutor nomination. There is only one significant pause. After a 5 second gap Jenny comes in, but this time without prompting: "Right. Me? Jenny."

Although this analysis indicates that students will adapt to such an imposed system and the tutor chose to persevere with it to the very end, with even the farewells invited in order, the interviews with the student informant for this session and the tutor revealed strong dissatisfaction. Judged as "awful" for it "wrecked spontaneity", the idea was abandoned after the first attempt, the tutor concluding, "I'd rather have a few pregnant pauses than this, you know, mechanistic approach to talks" (Tutor, Interview, after Round 2, 6.4.90). Given the reaction of the other participants and the analysis of this teletutorial, there is much to justify the rejection of an imposed speech protocol.

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Reflecting on this episode within the context of the theme of this chapter (the tension between rhetoric and reality/belief and practice) it becomes apparent that gaps do emerge. The stated intent for the tutor to take a facilitating role in a collegial shared search for knowledge with learning from one another in this instance, at least, has not been realised. Significant tensions have been revealed also in the attempt to implement a pedagogy that is student-centred rather than teacher imposed.

If it is so difficult to move from the normative paradigm of teacher dominated discourse and transmission in a face-to-face environment, and the literature is unanimous on this point, the situation of the teletutorial may well make it even more difficult to realise the rhetoric. Every tutor has to prioritize in order to meet the imposition of time constraints but the particular situation of the teletutorial with its much reduced contact time remorselessly compresses what can be covered in this way. In this context, much of what the tutor imposes can be seen as sensible and productive: see, for instance, the
deflection 129-131, Appendix IIc. Further, for students as well as their tutor, to
develop teaching and learning sessions that are very different from their frame of
experience, considerable time needs to be spent to get to know one another, as well as
what each individual and group is seeking. These students have never met as an
homogeneous group before. Not only is their teletutorial experience limited to one hour
but that was six weeks in the past. Moreover, there is an implicit structure here that
naturally privileges the tutor and places her at the centre. She has organised the
teletutorial, set the time and made the decision of how much teletutorial contact there will
be. She has written the printed course materials and so, almost inevitably, despite any
wishes to the contrary, the agenda will come from her domain. Hence, any desire for
openness is inevitably set against the closures that are endemic to the system.

What is of particular concern here is that students and tutor are engaged in a situation
where it is contended that it is impossible for the 'espoused theory' to become 'theory in
use'. However, while this may be of concern to the observer/analyst, the extent to
which this is problematic for the participants depends on the extent to which they
perceive there are tensions. The tutor sees herself as someone who values student
discourse - someone who is aware of the dangers of dominating the discussion, but
someone who does not allow this to happen:

But I actually think that there is a connection er between what one
tends to do in one's private life and the classroom and on the
telephone. And if you're a person who basically thinks that other
people's values - er value other people's opinions and try to get
them to talk and not to dominate their their discourse - I think that
wherever you are, whatever the arena you'll allow that to happen.
(Tutor, Interview, before Round 2, 3.4.90)

The assessment of the student who was the informant for this session was not only
positive but indicated she thought everyone was involved:

Yes, well I thought it was great. You know, the girls - There was one
girl actually, I think, who was very hesitant to sort of talk at first and
perhaps she didn't quite understand, or didn't quite know what she
was going to talk about and then we all started to talk and the
atmosphere was feeling a lot more relaxed - oh, you know - in the
end she said, "Oh, I've learnt so much!" and she was talking as
much as anybody else. (Jenny, Interview, 3.4.90)
It seems that on this occasion neither the tutor nor the students either during the session, or reflecting on it, can recognise that gaps have appeared between stated beliefs/intentions and what eventuates. As Lemke notes, (1989b, p229) such close analysis magnifies the significance of what passes very quickly for participants. As he suggests, it is instructive to look at other occasions and see whether the same patterns repeat.

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Of particular interest in this regard, is that, similarly to the informant for teletutorial [A], students in other teletutorials have the sense that the sessions are, in fact, "student driven" (Louise, Interview, 10.4.90) for "we talked about what we wanted to" (Julie, Interview, 6.4.90) in "a pretty even exchange" (Patricia, Interview, 6.4.90). As one student explained:

Bev played a very backseat role in um most of the discussion. She made people sort things out amongst themselves and um when there were pauses she didn't necessarily jump in and make things better. She waited for for someone else to um keep the ball rolling which was good because it made people talk a little bit more I think.

Right, so you don't go along with the line, that, you know, the tutor's there to be the fount of all knowledge?

No, no. I think as a facilitator I think again she was quite good because she didn't jump in and she wasn't very directive. [Mm] Um, she was sort of quite good at um - Certainly when when things got off track - I think there were a couple of times when she did sort of say, you know, "I'll just mention the other blah, blah, blah" but for the most part she was good in that she didn't um direct the flow of things. And she allowed them to go whatever way the students felt was right. (Catherine, Interview, 6.4.90)

Another student, who asserted that "the tute was directed solely by what the students wanted to discuss" (Patricia, Interview, 6.4.90), on reflection gave a more modified view.

We got into an interesting discussion in the course of in the course of um discussion amongst students [Mm Mm] and the tutor interrupted and stopped it. And it had obviously got way off the
track of what she wanted us to discuss so that's why she interrupted interrupted.

Now, what was your reaction to the interruption?
Um, well, because I was interested in what the - in listening to what
the other girls had to say, um I was sort of a bit a bit peeved as I really
I found it an interesting subject.

Was it at all relevant to your course?
Um, probably not, probably getting off the track. It was um getting
into the realm of industrial um problems, I guess.

Right, so yeah I can see - as probably you can - both sides of that of that
argument. [Yes] So on that occasion um Bev intruded to say, "Hey, enough's
enough".

Yeah, [Yeah] well more or less to bring us back on track again. She
found something that was in one of one of the books and then
brought the subject back around to what she thought was more
relevant to discuss. (Patricia, Interview, 6.4.90)

The opening "she wanted us to discuss" and the closing "She ... brought the subject
back around to what she thought was more relevant", not only negates the student's
opening assessment of what had happened, but shows how it is the tutor's judgement of
relevance that will have the controlling voice.

Although this interview clearly indicates dissatisfaction by the student with the tutor
privileging her agenda, student journals indicated acceptance that this was a legitimate
tutor role:

Another interesting thing was the feminist tone coming through, the common
frustration with Doctors, and we really got going on that subject and Bev had
to stop us to get us to cover other topics. (Julie Journal, 4.4.90: my emphasis)

Further, one cannot assume that students will invariably or necessarily accept that what
other students - with tutor acquiescence - choose to discuss is helpful. For instance:

That's - I think that's one of the traps too of of um when it is
external study that people focus, or or I don't - I sort have focussed
on the pieces of work, um like the assignment to be completed, um
and tend to sort to sort of lose sight of the weekly exercises and things like
that. Um and I think that that was it. That you know we were in
the middle of doing our our final assignment and even though the
semester wasn't over for me um we were talking about finishing off
and goodbyes and and next semester and what subject we were doing next semester. I felt a little bit like people were getting off the track for a group forum and and going off with their own agendas and and bringing up points that perhaps weren't relevant to other people. (Catherine, Interview, 22.5.90)

Students also expressed their fear that they could be seen as assuming an unduly dominant role. To consider this more fully an episode has been selected from a teletutorial where a student reflected on this matter at some length in an interview.

I'm interested that you feel that you felt the need to restrain and constrain your contribution.
And that's, I mean, that's just my problem. That's something that I have to deal with.

Just because you you feel that otherwise you you are unduly dominant?
Yes. I think that, I think that because it is such a limited time that I didn't want to um be the one that was taking up all the time and that maybe if - I think that sometimes those silences can be really useful; [Yep] um because it can get people thinking and maybe if I do shut up someone who may not have said anything um will say something. Or if I keep talking that person, who might have said something if I'd shut up, will think, "Oh well, I won't bother". Um, you know.

Yep. I know, I know what you're saying. It's very, very logical. [Yes.]
(Shared laughter) Yes, suppose too, from the other point of view, though, if you hadn't shut up and you'd come up with something incisive, illuminating and brilliant, all the others would have thought "Now, there's a thought that I might never have perceived in my life!"

Well, that's right, but knowing myself the the chances would have been very slim! (Shared laughter)

No, no, I wouldn't think so. But it just does depend, doesn't it, from the perceptions that you have and from where you're coming from.

Mm. There was this one woman from Rockhampton. Um, being a Queenslander I know all about Rocky people. I could just imagine. I was picturing her; like I had this mental picture of her because she just reminded me so much of so many people that had taught me at the Royal Brisbane hospital. [Oh, right.] And she was talking about, you know, being a Nurse educator and da da da da and it was just
awful. And she was the one that it found most difficult to just hold back and not say anything because I disagreed with probably ninety-five per cent [Mm] of what she had to say.

How do you think Bev handled that? 

Um, I don't know. I think she probably should have - I think she was perhaps a little bit um overly protective of us at one stage. I can't remember the exact incident, but I remember at the time thinking, "Um, come on. Let's go for each other. That's all right!"

(Laughs) Go for the jugular! [Cross-voices] We're all nurses, we can mop it up later!

Yeah. Well, I mean, I think that's really useful some time to all sort of jump in. A bit of academic debate. Um. And I think people didn't like disagreeing with each other. And I found that Bev didn't really disagree with anyone either. And I know that's not really her role but there were times -

Why isn't it her role?

I don't know. I think, you know, I think she was trying really hard to be a facilitator and a peace maker and da da da but I think sometimes um it would have been really good to hear - I mean I just really enjoy being challenged by somebody. [Yeah. I think that's the fun of the fair!] The ideas and then having to justify them. And I love it. And I didn't really - There were a couple of times when I said things and I know I didn't even really say what I meant to say, um but I really was almost wanting someone to say, "No, no, no I don't agree with you" or [Yes] or "No. Really?" or something and that never happened. And I think that was maybe a bit disappointing. (Catherine, Interview, 22.5.90)

As a prelude to this discussion the student had revealed a sense of discomfiture about her involvement: "I just felt I was being an obnoxious little loud-mouth" and "I felt like I was a bit of an angry young girl at times" (Catherine, Interview, 22.5.90). Despite her sense of undue dominance - of being a "loud-mouth" - she spoke also of "holding back" and was prepared to own responsibility for that:

You know, I was holding back which I know was something I shouldn't have done, but I was sitting there a lot going "Oooh!" and then stopping because I just sort of thought, "Oh, no, I don't agree with that!" or "Oh, God, you know, why do you think that?" And
that it's, you know, my own problem that I just should say "Well, no, you know, I think da da da da da" - I think in a way people were a little bit too, um, you know, beautiful about everything. (Catherine, Interview, 22.5.90)

The student expressed similar concerns, but far more briefly and hence less fully in her journal, writing: "I felt myself holding back from saying things because I was conscious of dominating the conversation" (Catherine, Journal, 21.5.90) and in a further comment suggested reasons for her reticence:

I don't know that the group and I think along the same lines and maybe if we knew each other face to face I'd be more inclined to challenge them on issues. At the moment we're all being polite and nice (Yuk)." (Catherine, Journal, 21.5.90)

With this context of the student's perceptions, an episode from this teletutorial has been selected for closer study: see Appendix IIId. It is fruitful to look at the interaction sequences, especially the tutor's initiation and the individual student's response, and to see whether the informant did dominate in this episode to the extent she believed and then consider the extent to which this episode typified the teletutorial and how it compared/contrasted with the one previously discussed.

As with the other episodes discussed in this chapter, this instance begins with the tutor clearly in the T role of setting up the discussion. Again the tutor attempts to facilitate student control of the agenda but again it is clearly within an imposed framework:

Now we last talked um around about chapter six and I was thinking that any of the information from six up until nine - you can include nine in that if you want to - um, would be good to talk on tonight and er those areas have to do with er encountering phenomena in Nursing, therapeutic Nursing and things related to the case study. So, um, you might like to spend some time talking to one another about what you've been reading. Anything interesting, anything you'd like to raise tonight for discussion, so I'll just sit back and let you talk to one another and then when you're finished I'll pull out some ideas and um assess you as I can. OK. (1-17)

The comment "I'll just sit back" (14) indicates a deliberate non-involvement, withdrawal. In a non-visual setting "I'll just sit back" is an image as well as a reflection of the actual situation for while in all conversation there is a tendency for those speaking to sit forward, in teletutorials this is more universal as speakers position their mouths closer
to the microphone(s). The permission, "let you talk to one another" (15), is a revealing utterance in terms of the tutor's assumption of power and authority to dispense the right for the students to speak directly with one another. While she is prepared to concede the control of the time with "when you're finished" (16), she later uses a significant pause (5.5 seconds) to redirect the conversation to areas she considers appropriate: "This is Bev. Um, I was wondering if we could um move this conversation to um relate it to chapter eight" (334-336). The qualification at the end of her introductory comment "um assess you as I can" (17) has a tenor of diffidence by the qualification, but the double "I" clearly locates the point of control and the powerful role of assessor has been assumed. While the students may make personal evaluations of the worth of the tutor utterances, these thoughts will, in all likelihood, remain private to the rest of the group. What the students will say will be judged and that judgment communicated to the group by the tutor in terms of her role and values.

It is one thing to invite students to set the agenda; it is quite another for them to respond. In this instance her invitation leads to a considerable pause of 10 seconds and the tutor does not - as many tutors would - intervene. As discussed above, the informant for this session believed she had assumed too dominant a role and deliberately had held back. Here, although early in the teletutorial, it is another student, Jill, who responds - "I thought I'd better start" (19-20). She raises a problem area within journalling that was picked up and discussed without tutor intervention by each of the other four student participants: (46-102). After each has taken a turn, it is the third student who has spoken, Kerrie, who continues. The next tutor utterance is enforced because it is impossible to hear Kerrie as far as the tutor is concerned and the tape, which was recorded at her site, bears this out: "I've just lost contact here. This is Bev speaking. I'm just wondering if there's anything happening out there or have we lost you?" (103-106)

From Kerrie's first contribution, Bev has expressed concern: "Kerrie, you're fading on me" (Teletutorial 2, Round 3, 21.5.90). Although Kerrie agrees to speak more directly into the mouthpiece, the problem, with one exception (136-147) is persistent to the extent that the tutor feels compelled to say:

It seems - This is Bev here. It seems that there must be a connection problem with Tassie um because when Kerrie finishes talking we're never too sure when she's finished. Um, so just keep on talking after Kerrie's been talking or if there seems to be a gap just take it up. (Teletutorial 2, Round 3, 21.5.90)
To this point Kerrie has contributed on six occasions. Not surprisingly, there is a considerable gap before Kerrie comments again and on the only other occasion she chooses to comment (in contrast to the two occasions that are tutor questions seeking responses from each of the students) she adds "I'm finished now", (Teletutorial 2, Round 3, 21.5.90) stimulating laughter from the group. Although this is an instance where technical difficulties have negatively affected the flow of the discourse, the students, who could apparently hear Kerrie, considered they had "faded out" (109) (replicating the tutor's language: 108) and "dried up" (110). The tone and comment of the next tutor utterance are a direct response to this and she plays back "dried up", using the more sophisticated "dehydrated": "Oh, I see. The old cells brain cells have sort of dehydrated a bit" (111-112). Her 'E' comment, "Um, right, well this is good" (112-113) where the "this" is unspecified and would justifiably create confusion in the student's minds coming directly after the previous comment of declining cerebral activity, becomes clearer when she adds, "It seems er that even though um the journal exercise was a bit of a mystical trip for a start that people are starting to see the sense in it" (113-117). Although responding to an earlier student question,

But when I came to the readings bit about knowledge embedded in practice, and the knowledge that we have as nurses, I found that a really hard concept to look at my work and work out what it was that I can do that was um specialist. (32-37)

with a partial paraphrase of "How do you actually get to that knowledge embedded in practice?" (118-119) she then clearly controls the next sequence: "I was thinking" (117) and "my answer is" (120) and "So, can I tell you ... " (129-30), inviting student reaction with "What do you reckon about that?" (135) Kerrie's response is closely tied to the tutor: "I can see what you mean" (136-137) but, significantly, she adds "in theory" (137) and separates this from her own experience in practice - experience that she indicates is extensive (137-147). There is a strong sense that the tutor dismisses her stance (which is almost identical to that raised by the first speaker, Jill) of "I find it hard to think of it [Nursing] as being particular knowledge, special knowledge" (145-147) for she invites other students to "help Kerrie" (150) by citing an example from their own practice. Although Bev indicates she could do this with "I've got one [an example]" (152) she deliberately stands aside: "it would be nice if somebody who's been in recent clinical practice could just talk to this for a while" (152-155). After a 9.5 second pause, only the second significant pause in this episode and again one that the tutor does not break, it is Catherine, the informant for the session, who responds. Self-deprecatingly she begins with "I'll be my cynical self" (157-158) and evokes some shared laughter. She responds, as requested, with an example but one that she claims is
"probably not a very positive thing" (159-160). Her example is to evidence that experience/time does not necessarily make one a clinical expert and the example she uses is of a nurse who, she believes, acts highly inappropriately. As Catherine states her example (167-185) it can be seen to have been triggered by Kerrie's contextual remark that she had "worked in one area for such a long time" (142) and, when this is realised, the example chosen is hardly supportive and seems by its counter case not directly apposite to Kerrie's perceived need. Hence, although Bev says that she wishes to "reinforce" (190) what Catherine has said and claims it is a "good example" (191), she takes from this and reworks it to fit her contention of nurses as experts. With her generalised, inclusive conclusion, "But you see the thing with nurses is that they do that [ie consider all the variables] so easily, they don't actually see that that's special" (206-208) Bev seems to have no problem with the fact that the nurse who has been negatively criticised by Catherine in her example, and who in her own assessment "doesn't really reflect knowledge embedded in her practice" (196-197), is still a nurse. Citing a comment from a student in an on-campus tutorial to reinforce her position (210-216), after a 4.5 second pause Bev again moves to engage the students:

Any other comments related to what you're reading? I mean, you might like to keep on the journalling tack or um anything at all you want to share with the group. Please feel free to talk to one another. (218-223)

It is a long time (15.5 seconds) before any student takes up the proffered invitation and experience of listening to many other tutors indicates that here the tutor shows unusual patience.

In interview, the tutor commented on her struggle to keep silent.

Do you know one of the things I think's the hardest thing to learn? It's to shut up! Now I found today, when they they didn't seem to be connecting to this bright idea I had, but I thought I'll let it go, anyway, and I was quiet, and I think if you allow the quietness, if people can live with the silence, [Yes] it's fine. We don't feel that we have to fill the bloody gaps! [Ironically, voices in competition.] (Tutor, Interview, after Round 2, 6.4.90)

Rhylla's somewhat cryptic response that she was "just testing" (226) could be interpreted as her desire to see whether the tutor, or anyone else, would take up the
discussion. Her role as a nurse educator seems relevant here. Again it is not Catherine who comes forward. Rhylla's response (226-256) does "keep on the journalling tack" and, in the context of personal difficulty, raises two salient points: the reductionist approach of imposed selection in journalling when the readings stress an holistic approach, and the fine line between being judgmental and being objective. The tutor allows the pause after she finishes to last and, after 7.5 seconds, Anne continues the point about objectivity. Both the lack of fluency and the content indicate that she is struggling and she has not recognised the complex underlying points raised by the previous student. Both Anne and the following speaker, Jill, are more confident when they can move from concept/abstraction/problematising to their Nursing worlds, and both find solace in the unit of study. Rhylla has asked for "some comment" (240-241) in relation to her difficulty. With the students seeming unable or unwilling to proceed further, after a 5.5 second pause, Bev "move[s the] conversation" with:

This is Bev. Um, I was wondering if we could um move this conversation to um relate it to chapter eight. Er, just to see how you're making sense of your reading and whether or not the theory parts all seem useful to you. I'm getting the impression that the practice of journalling is becoming a useful thing so I'm wondering what sense you're making of the of the reading itself. Er, chapter eight begins on page a hundred and seventeen if you've got your Style Guide, your Study Guide here, and it talks about Nursing as a therapeutic act. Now this is rather a bold claim: that Nursing is not only a caring thing but it also has healing potential. I'm wondering what you think about this? Do you think we're going over the top here or do you see that your Nursing is both curative and curative? I'll put that to you. (334-355)

In this utterance, in common with the students, she has failed to respond to the quite significant problems Rhylla has raised. With the triple statement of "I was (am) wondering" (334, 342, 350-351) she abruptly changes the whole course of the discussion.

Analysing this episode using the 'T R E' framework, the 'T' role is assumed by the tutor on eight occasions: 1-17, 105-106 with 108, 117-119, 135, 148-155, 218-223, 334-339 with 342-355. The two occasions, Jill (43-45) and Rhylla (240-241), where students can be seen to have assumed an 'T' role, come from a response to what the tutor has already initiated. The students assume the 'R' role. On thirteen of these
sixteen occasions it is a student in response to the tutor. This does not mean, however, that the discourse is inevitably tutor initiates, student responds and tutor evaluates. Although the tutor has the first 'T', the response by one of the students leads to her own initiation, as a refinement of the general opening. At this stage there is no explicit evaluation. The response of the second student builds on the closing question from the student, and there are three further student comments before the tutor again assumes an 'T' role. As stated earlier, this is enforced because of difficulty in hearing one of the students. There are three brief responses from individual and unspecified students and the tutor's next response, which incorporates an 'E' movement: "Um, right, well this is good" (112-113), leads to a question which she, herself, answers. The next 'T' move sees one student response and is followed by a second tutor 'T'. This pattern is repeated with the addition of tutor evaluation (190-191) and response. A new tutor 'T' leads to a student response and development into a student 'T'. Two students respond to this. Despite the expectation given at the start - "I'll ... assess you as I can" (116-117) - the tutor's move is not to evaluate what they have said, but to move the conversation into a completely new area.

* * * *

Interpreted this way, again this episode leads to a compelling conclusion of tutor dominance. Yet in each of teletutorials discussed in this chapter it is the tutor's expressed intent to give space and time for the students to develop the discourse. For this reason, the customary interpretation of lapses in conversation exhibiting inadequate skills on the part of the participants (see, for example, McLaughlin and Cody, 1982; Rumelhart, 1983), needs to be set in a context of allowing space for student reflection and a deliberate withdrawal on the part of the tutor to promote student interaction. So, on one occasion in teletutorial [A] after a 5.5 second pause, Bev tells the group:

(Pause) I was waiting to see if Jenny was going to pick it up then. Um, what I'm trying to do is not interrupt too much. I was trying to think of a way it might work without me interrupting. (Teletutorial 1, Round 2, 3.4.90)

In a later section from the second teletutorial [referred to as B] discussed in this section, after a more extended pause (11.5 seconds), Bev says:

(Pause) Ah, this is Bev. Don't expect me to continue um keeping you going. I'm trying to keep quiet to give you a chance to talk, so take it away.
To which a student, probably Catherine, replies:

Come on, Bev, you're supposed to save us. (Teletutorial 2, Round 3, 21.5.90)

again generating some laughter from the group. In the final teletutorial Bev's efforts have been recognised and appreciated: "... thank you Bev for not being too controlling and for making us realize that we can fend for ourselves" (Teletutorial 2, Round 3, 21.5.90).

While the tutor deliberately strives to allow time for students to comment, there is the chance that the silence may not be attributable to student reflection or reticence but to technical failure. After a very extended pause of 18 seconds Bev says, "I've got silence on the end, here. I'm not too sure if that means if you're OK or not. Have I still someone out there?" (Teletutorial 2, Round 3, 21.5.90). She generates an immediate affirmation of presence ("Yes") but no further response to the question she had asked. Earlier in the same teletutorial, after a significantly lesser gap of 6.5 seconds, she had expressed the customary fear of all teletutors: "Oh dear, don't tell me we've lost them?" and given an audible sigh of relief when a student commented after a further 4 second pause (Teletutorial 2, Round 3, 21.5.90). Hence in the teletutorial not only is silence far more difficult to interpret as there is no visual input, but it is likely to generate tutor anxiety and concerns of teaching and learning within a technologically mediated communicative environment.

While statistically in this episode the pauses are more frequent (22 compared with 15 where there was an imposed speech protocol), of longer duration (the longest is 18 seconds and the average 7.04 seconds, compared with 16.5 and 5.78 respectively) and the percentage of silence is greater overall (4.86% compared with 3.15%), this difference is too marginal and there are too many other possible significant variables, not the least of which is a different student cohort, to conclude that the speech protocol strategy reduced latency. However, a comparison of teletutorials [A] and [B] clearly reveals that the imposed speech protocol enforced tutor dominance of the discourse.

Further analysis of teletutorial [A] indicates that where the speech protocol is most dominantly enforced the adjacency pair is inevitably tutor/student. Excluding the section where the operator intervenes because of technical difficulties, the conversation flows tutor/individual student on 57 of 63 speech groupings*. In [B] this occurs far less frequently and of these 18 occasions, 7 form part of one episode where an individual

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* Here, a speech group is student(s) plus tutor.
student is seeking tutor advice. That there are far fewer speech groupings (28, as compared with 63) is further evidence of the significantly reduced level of tutor input. In [A] there are 6 exchanges (compared with almost double the number - 11 - in [B]) where students speak consecutively without tutor utterance. In all but one occasion this is because they are taking their designated turns to respond to what the tutor has raised and there is minimal peer/peer discourse. The only section of the teletutorial where the students speak directly to one another, rather than speak parallel utterances in response to a tutor invitation, is a period where the speech protocol has been relaxed. Over half way through the session there is a series of exchanges between two students and a third enters the discussion (See Appendix IIb, 47-142). This passage of fifteen exchanges without the tutor voice is atypical for this teletutorial (while occurring regularly in [B], if not to the extent of fifteen exchanges without tutor input) and once the tutor is involved (and she moves the discourse abruptly with procedural concerns: 143-144) the dominant tutor/student pattern is continued. In contrast in [B] where there is no speech protocol imposed the pattern is very different. There are extended periods where the students speak directly to one another and the shaping of the discourse is far more clearly theirs than in the whole of [A], with the one exception noted above. Here tutor/student adjacency pairs are rare until towards the end where there is the extended set of exchanges referred to above. In [B] there is a further difference in that students are prepared to ask open-ended questions of their peers, (eg "Does anyone else find that they're having a problem with that concept relating to their own work?: 43-45) in contrast to the one directed student/tutor question of [A] regarding an administrative matter and the two student/student questions that are part of the one extended peer exchange (Appendix IIb, 63-64 and 67).

A further index of dominance is the number of lines of utterance. In the episode that forms Appendix IIId the tutor has 111 of the 355 lines, the five students sharing the rest. When it is appreciated that there is a further 39.5 seconds of student comment that are unrecorded, the students have a much greater participation level than in the previous episode analysed (Appendix IIc) where the tutor speaks 109 of the 164 lines. Catherine, who sees her own role as so dominant, speaks 63 lines. While she is the most vocal of the students as far as number of lines evidences, the number of lines spoken by students is fairly evenly divided: Anne 53, Rhylla 53, Jill 46 and Kerrie at least 50. A second useful indicator of dominance is an assumption of the 'I' role: the initiator. As discussed above this is almost entirely the province of the tutor. On the basis that a further indicator of dominance is preparedness to break the silence, in the case of teletutorial [B] of the 22 occasions when there is a significant pause, on half of these (11) it is the tutor who undertakes this. Despite Catherine's perception of
dominance the students share this role fairly evenly: Catherine 3, Rhylla 3, Jill 2, Kerrie 2 and Anne 1. Hence, although the tutor makes a stated effort to "keep quiet", she remains the dominant voice. Again in [A], despite a similar statement that she is trying to avoid "interrupting", it is the tutor's voice that continues on most occasions: here, on nine of the fifteen significant occasions. Hence it appears that while attitudinal indicators may suggest otherwise, analysis indicates that the normative paradigm of teacher dominance has prevailed.

Speaking at the end of the semester Bev focussed particularly on tutor domination. Her comments are revealing.

So, is there anything that you think, in terms of you, as a teacher, that you've learned from the experience?

Certainly and I learned it on the very first occasion. You commented that I had a tendency to give um mini-tutorials, mini-lectures [Did I? Yes] er and I've always tried to deal with my tendency to dominate in the classroom by holding back and sitting back and integrating sentences and leading people on rather than taking over. Um, it's something I've been dealing with as a teacher for years now. And it's particularly challenging in a teletutorial where silences might mean the whole bloody system's dropped out or it might mean that people are thinking. Um. So I've - It it happened yesterday there was quietness and then giggles and er I I said, "Look if there's a silence, it's not because I'm not here. It's because I want you to talk to one another". And they said, "OK, Bev". And at the end of it one of the students said, "Thank you for letting us talk to one another". But that's the thing I've learned: maintaining silence and not dominating. And I still don't do it well, but I think it's something I'll always have to work at. [Cross-voice: But you're aware of it.] (Tutor, Interview, after Round 3, 23.5.90)

THE CLINICIAN AND THE ACADEMIC/ NURSING EXPERIENCE AND ACADEMIC STUDY

In each of the first teletutorials the unit (Phenomena Encountered in Nursing) is outlined:

And, um, so the phenomena encountered will take us into a journey. It will take us into a journey of Nursing but basically into
your own terrain. You'll be looking at your own practice, you'll be keeping a journal - I'll talk about that shortly - um, and you'll be looking at the value of yourselves as clinicians. And we can't emphasize this enough. That we really believe that the people doing Nursing are the ones who generate the discipline: discipline being a body of knowledge. So, what we try to do in this unit, is bring out the practitioner knowledge you have. (Teletutorial 4, Round 1, 27.2.90)

This contextual statement unambiguously makes the point that the study undertaken, the "journey", will be set within the students' own cultural parameters - "basically into your own terrain". Hence the emphasis on practitioner knowledge.

Students are explicitly and consistently told in both the printed text of the study materials and the spoken text of the teletutorials that their role as clinicians and the experience they can bring to the discipline are highly valued. For instance, in the first group of teletutorials the students hear (in almost identical language on each occasion)

And what I love to do - one of the main things I love about this Bachelor of Nursing course - is I constantly remind you that, as clinicians, you are special and that you have knowledge which you don't even know about. Now, the reason for the journalling, is basically to bring to the surface tacit knowledge you have - tacit being hidden and and, um, unrecognized in a sense. But when you work day to day you work in very fluent ways that you're probably unaware of and the journalling will help you bring to the surface the sort of knowledge which is motivating your action. It's called 'reflection in action' um and um you'll be reading along - um, there's a guy called Schön, for instance, who's written a lot on this and you'll be directed to read some of his work in the Unit Guide - Study Guide, rather. (Teletutorial 4, Round 1, 27.2.90)

Students are, therefore, receiving a message at a critical stage of their academic study that they are "special" with highly valued skills and that this unit of study has as one of its particular aims to encourage them to reflect on their experiences and that such reflection will lead to both recognition and awareness.
As the unit develops, for the students there is inherent problem. Their expertise has been consistently stressed and they have been encouraged to the point of cajollement to enhance their self-image of their role as clinicians/practitioners. At precisely the same time, having drawn so heavily on this basis for their written assessable tasks, they receive information that makes them seriously question their burgeoning self-image of competence. To the tutor the distinction is readily apparent: they are experts as practitioners; they are novices in the academic environment.

These people, know it or not, whether they know it or not, are experts. They're clinicians who are working in the in the field in fluent ways. They don't even think about the knowledge they're using in the action that they're doing daily. Now they have relative levels of success. Even though they're very self-critical and somebody picks them up when something goes wrong in the ward, they basically do things very well. They come into academia um and they bring with it their expectations, as experts, they're going to be just as successful here. But they come as novices.

It's a different context.
It's a different context. And they've got to learn that they they need to practice, just as they did in their clinical areas, to become the expert they are there. You have to practice in academia. (Tutor, Interview, after Round 3, 23.5.90)

These sentiments are conveyed in similar language to the students. So

I notice a lot of you were saying that you're a bit disappointed with your results. Just remember that you are experts in your clinical field and you expect great things of yourself. You're doing life/death stuff there. And you come into a tertiary situation. It's a new thing. You can't expect to get H-High Distinctions straight off. Passes are wonderful at at tertiary level. You have to re-evaluate your sort of credit loading for yourself. And it's no comment on you on you as a person that you get a Pass. A Pass is beautiful. And you need to re-evaluate what that means. Um, I've done a lot of talking like this in the last week or so. We've got a lot of disappointed people because they've got a Pass or a Credit. It just means that you're practising in a new field. If you like, you started at novice and you'll be an expert in this before long just as you are in your clinical areas. (Teletutorial 3, Round 3, 22.5.90)
Here there seems a suspect connection of ideas. Having been assured that "Passes are wonderful at tertiary level" and "A Pass is beautiful", the students are almost immediately told that a Pass - even a Credit - reflects their status as novices and that, inevitably and inclusively, as they became expert in their practitioner roles so they will in the academic environment. It seems time and experience will ensure this and from such comments students can reasonably expect that "High Distinctions" will be a consequence of persevering with the course. Yet the conclusion of the interview indicates that is creating a false aspiration for:

If we start handing out H-High Distinctions like little chocolates, they're going to expect that all the way through and their disappointment will be even more intensified when they start getting knocked back in the other disciplines. (Tutor, Interview, after Round 3, 23.5.90)

It appears, then, that although the students have been told that the journey will be basically in their own terrain, the final arbiter will be the new world of academe where, at this time, they are indisputably novices.

Providing assurance to the students that it is highly desirable to draw from their own experiences has a danger that this will give what the tutor judges as an undesirable focus to the teaching and learning sessions. As discussed above, the tutor's agenda, her stated priority, is to build on the theoretical basis and link this with the reading material and theory. She is clearly dissatisfied when the discussion is "anecdotal and not really related to the reading" (Tutor, Interview, after Round 2, 6.4.90) but this is not unproblematic. Speaking of a session described as disappointing she added:

Even though there wasn't much theoretical knowledge as I would say, you know, as as sort of expressed through the Study Guide there was a lot of experiential knowledge. They were clinicians, and I was actually - would you believe? - sitting on the loo thinking about that, thinking "Am I becoming elitist in my expectations?" I mean, these people are coming into tertiary study for the first time; they've got years and years of clinical experience. This is the whole ethos of the the School of Nursing at Deakin. Now I want to be careful I don't expect too much theoretical jumps, leaps, conceptual leaps and gymnastics of people who are just getting into the into the swing of it. (Tutor, Interview, after Round 2, 6.4.90)
Hence teacher expectations of what represents a satisfactory teaching session are in tension with the 'ethos' of the faculty, which stresses the valuing of experiential knowledge and the empowerment of students to negotiate the learning experience. And within that 'ethos' there is further tension. While valued, the educative processes entail that what the students own will be subsumed to the identity of the discipline for, in drawing so abundantly on practitioner experience, students are being asked to recontextualise that experience and place it in another field of reference. Thus they must estrange themselves from their own experiences to gain a sense of them and these experiences will be reshaped to the extent that they will probably no longer be recognizably what they were.

Research reported by Tracy (1993) in the context of the university colloquium indicated similar conflicting beliefs about the role of experiential knowledge. She quoted (p20) a junior faculty member who believed that it was often perceived that "it's a greater intellectual skill to deal with it [a topic] abstractly without referring to everyday life". Concluding (p20) "personal anecdotes and examples are high risk conversational moves" Tracy pointed (p21) to a tension between "the ideal of having a lively, animated discussion [which] creates a preference for stories, examples and personal anecdotes" and the reality that "a concrete story and an abstract statement are not equally likely to be seen as intellectual" in an environment where the participants are striving to present themselves in that way. The discourse of the Nursing teletutorials provides compelling evidence that the conversation flows far more readily, and with much greater force and life, when the students can speak in concrete terms based on their own knowledge. (Compare, for example, Appendix IIb and Appendix IIc.) The utterances are frequently longer and hence more fully developed and are demonstrably more fluent although there can be periods of rapid, animated exchange with a greater likelihood of student-student exchanges without tutor intervention. However, although the tutor can be seen as endorsing anecdotal discussion - "Isn't this good fun! It's really um experiential stuff for us all" (Teletutorial 1, Round 2, 3.4.90) - her use of the word 'fun', when set in the context of teletutorial comment and interviews, can justifiably be interpreted as relegating this aspect of the discussion and setting it lower on the hierarchy of academic value than the 'serious' abstract, theoretical discourse.

Tracy endorses (pp20 and 21) the conclusion of the junior faculty member quoted above who said, "I think the real insight is to see the connections between your everyday life and these abstract ideas". Similarly the tutor here believed that academic study demanded that students do more than articulate their experience:
They they may have experiential knowledge but when it comes down to it they may not be able to extrapolate it in a theoretical way. [Some overlap in conversation] (Tutor, Interview, after Round 2, 6.4.90)

Failure to take this step is not only surprising as far as the tutor is concerned, but an indication that students may be unable to cope with the very tenets of the subject:

Well again last night made me - I actually thought about the fact that some people may not be able to deal with the material. (Tutor, Interview, after Round 2, 6.4.90)

By the completion of the third and final round of teletutorials, the tutor is still concerned about the issue but seems to be more accepting of a situation where the students are retaining to the greatest extent possible a discourse that draws on their known practitioner worlds.

And I I was just thinking of the tension there between my agenda and their agenda. When they do talk, they talk about instances of practice which is what this whole unit's on about and that's fine. I had the situation yesterday where a woman said she didn't know what 'Practice Discipline' meant but she would like to tell the group that she values being a a clinician and it's really nice to feel good about being a nurse. And so I was able to say to her after that, "Look, you may not know in in your mind what the theory of 'Practice Discipline' is but you've just epitomised what we're on about". If you value what you do, what we want you to then do is to tell people how you do it and what you do, so you add to that body of knowledge caucus. So, I think people even who feel they don't understand theoretically, if you can help them find the links between their experience and the theory they can um be very sophisticated in what they know. I mean the whole unit tries to bring that out. (Tutor, Interview, after Round 3, 23.5.90)

Although this interview comment reveals that, in the tutor's opinion, the language of the discipline remains beyond the intellectual grasp of some of the students, even where students do manage to incorporate discipline-specific language appropriately into their discourse the situation is not without further tension. This situation leads to a further area of dilemma - a "great concern" - by the tutor. Reflecting on any differences
between the first and last teletutorials, she isolated language use. Pleased that "they seem to use words in context", there is still a recognition of fundamental tensions here.

My dilemma is that in a course like this we teach them a whole new language and they lose or cease to value their everyday discourse. And um er we've always said practice is our focus but if we end up with great long words in their vocabulary like 'phenomenology', 'paradigm' -

(Laughs) I was thinking that - of 'explicating therapeutic modalities'! [overlap]

Yeah, and they - I don't mind them having that sort of language but I don't want them to divorce their everyday understandings from the language they use in their practice because not only will they be alien-alienating themselves from other clinicians they'll also be de-valuing the very things that makes them special. So the real dilemma is in getting them into a certain way of talking and knowing and understanding an academic world that they will divorce their practice world and that's not the intention, not the intention at all, and I don't know how we're going to do that and maybe we I maybe I have to put that out as a concern, somewhere in the materials, put that out as a concern. That even though you will learn this new language of academia, in relation to your practice the everyday language you use as a clinician conveys most readily what you're on about and that's what we want you to use when you try and bring out the knowledge you have. (Tutor, Interview, after Round 3, 23.5.90)

Here again, students are receiving conflicting messages. The language of the Study Guide is extremely dense to the extent of impenetrability and is clearly written from a perceived academic stance. The students frequently in interview spoke of concern with the written language and their sense that the tutor's spoken language in the teletutorials was recognizably different.

The unit was, the study that I've been doing, the language is just so way up in the air that I just expected the tutor to be like that too. But she's very down to earth. (Julie, Interview, 1.3.90)

The student's perception that the tutor was "very down to earth" is in accord with how the tutor sees herself.
Yeah, it's funny though, I find as I get older, Diana, I'm both as a nurse and as a teacher, I'm valuing um more an ability to stay grounded in the everyday. I mean my whole PhD thesis is about ordinariness in Nursing and, er whereas one might be seduced to think that higher levels of thought are er bound up in abstractions, the convolutions, my tendency is to go the other way. I actually think that the very nature of the spiritual is everyday, commonplace, and um more and more that's what I'm trying to do. To be the real Bev without a mask is er something I'm trying to do. (Tutor, Interview, after Round 3, 23.5.90)

However, it is the "great long words ... like 'phenomenology', 'paradigm'" that dominate the agenda of the teletutorials and the teaching and learning sessions show that the students are floundering to use the terms and understand them. While the tutor avers that the everyday language of the practice world should be retained, and that the language of the academy is a "new language", one that she, herself, had trouble with when pursuing tertiary study, she clearly separates the two worlds (the practice world and the academic) in almost the opposite sense to how she has encouraged students to bring the two worlds together. It seems appropriate that her voice and words should end this discussion.

But, you see, I find that er as a student, myself, when I first started getting off-campus materials, er the everyday grammatical words were even beyond me and I really didn't I didn't have much of a sense of how to divide the two. Um, I gradually came to learn the language. It didn't really affect the way I act as a practitioner, I don't suppose, because I knew there was a division between the academia and the reality. [Voice overlap] (Tutor, Interview, after Round 3, 23.5.90)
PART IV:

CONCLUSION
Chapter 8
CRITICAL ISSUES

"We have known that the telephone is important and that it is a communications medium. We have not thought to combine these two insights" (Hopper, 1992, pp217-218). We have known also that the telephone has a long and extensive history in distance education, but we have hesitated to explore its pedagogical function. We have recognised that the telephone is a significant technology that students and teachers deploy for interaction, but we have rarely asked what form that interaction takes and how, and in what ways, that interaction is mediated by the technology. Ihde wrote (1982, p65):

Familiarity often covers over what may be noted to be quite striking effects. We do not think twice about telephones, yet they dramatically transform the possibility of human dialogue, making it possible in situations never before available, but also making it possible by transforming the very meaning of the presence and location of the other.

This dissertation has considered two commonplace experiences of our world (the use of the telephone and discussion in a tertiary context) that have been rarely studied, not only as individual phenomena but as a nexus of educational experiences.

* * * * *

The considerable literature on the application of audioteleconferencing provides compelling evidence of the breadth of interest in this technology but, as discussed in Chapter 2, the emphasis tends to be on brief description of individual use without broader connections to other case studies or with theory. Through both its survey of the literature (Chapter 2) and the connection of findings with other research, there has been concern to establish links with earlier work. Unlike other research (such as by Carey and Edison-Swift), which has a similar intent to explain what is happening in the audioteleconference, this study has fused attention to the process of audioteleconferencing with that of tertiary pedagogy.

The decision to situate this study within an hermeneutic paradigm entailed close attention to what had been said in both the teletutorials and in interviews, and what had been written in response to questionnaires and in journals. I am particularly sensitive to Thompson's (1984, p9) reminder that the forms of discourse we seek to analyse are
already an interpretation, and that, consequently, I have been involved in a re-
interpretation of a pre-interpreted domain. Further, as several scholars have found,
spoken interaction is complex and elusive when one tries to interpret it. As a response
to the complexities inherent in interpretation, a variety of methods was used to provide
data that would give a fuller appreciation of the audioteleconference.

This research has indicated that quantitative and qualitative data provide insights that,
together, result in a more informed understanding. While, for example, questionnaires
were especially useful in providing information of perceptions to audioteleconferencing
and the extent to which there was unanimity is revealing, as indicated in Chapter 6 it is
the qualitative contextual data that can indicate why certain trends emerged. In some
instances, the quantitative data have been critical in re-interpreting the qualitative data
and, as demonstrated particularly in Chapters 6 and 7, it has been possible to evidence
that what the interactants believed - or, at least, claimed they believed - had happened
was not the case. In areas such as dominance, it is possible to quantify the amount of
speech and draw conclusions with confidence. These findings provide a cautionary
note for researchers and evaluators who rely on such comment as informed and
accurate. However, they do not deny the individual perception and the effects it may
have. The tutor who, for instance, believes that he/she has taken a secondary role will
have confidence that this is what has eventuated and is unlikely to realise that the
converse is the case. Hence the dislocation between espoused pedagogy and practice
will remain.

Through the data a sense of the experience of the teletutorial has emerged. While this is
important, it has been the individual narrative that has deepened my understanding of
what the teletutorial can mean. Increasingly, the more fine-grained analysis exposed
individual difference and reaction. Although, for instance, there is abundant evidence
that one value of the teletutorial is that it reduces isolation, the experience of the atypical
remote male student who leaves the session with his sense of isolation reinforced as he
contrasts his life in a remote mining camp, not only makes one rethink the assumption
that any contact will reduce isolation but it encourages a greater sensitivity to individual
circumstance that can be advantageous for all pedagogy. We can study the statistics of
telephone calls that do not eventuate and, as discussed in Chapter 6, the numerical
significance can lead to strategies to resolve this problem. However, there is a different
sense of what this means when the individual student writes of mosquito bitten children
and an irate husband who had spent the evening in a chilly park to allow her a quiet
space, yet the call that had never eventuated. We can have our assumptions rudely
shattered. It may, for instance, have seemed axiomatic that students who find value in
the teletutorial experience will have a more positive attitude to their study and to the institution that made such an activity possible, until one encounters an individual perception of denial because, with the program of study nearly complete, so much of the tertiary experience had lacked this interaction. Because of the richness accruing from such close attention to the individual narrative, this dissertation has been concerned to capture the individual reality of the experience and to draw from that to inform our understanding.

The success of the teletutorial is premised on meaningful interaction. Yet, as discussed in Chapter 5, especially, there are numerous contributors to what has been termed 'meaningful' interaction and, even when this interaction is 'overt', 'revealed', it is entirely possible to interpret it in different ways. Where, then, is the validity of the interpretation, that "interface between the findings of the study and the reality from which they were extracted" (Walker, 1980, p45)? What is offered here is my interpretation that has sought validity, and, it is hoped, achieved it in the sense that what has been concluded is considered a justifiable interpretation of what has been shown to have occurred.

* * * *

Without the technology of the telephone, the opportunity to speak directly with mentors and peers is denied many off-campus students. If there is recognition and appreciation of the unique contribution of spoken discourse to teaching and learning, and if there is a desire to make significant efforts to move towards a balance between the written and spoken word in the academy, the teletutorial is one important means by which this can be achieved. As this discussion has stressed, however, the technology of the telephone will shape the pedagogy in discernible ways. Ballard (1982, pp36-37) wrote of a "technological dialectic", with "mutually causal relations between man [sic] and modern machines". Although my notion of 'telepedagogy' is restricted to a discussion of the interface of the technology of the telephone and the pedagogy of small groups of tertiary students at two universities, there is a conviction that there is a technological dialectic and that telepedagogy is a dynamic and vibrant unison of technology and people. Grint (1992, p150) wrote of a 'human-technology alloy' with "apparently discrete phenomena as fused elements in a seamless web":

* Although Grint does not initially acknowledge the derivation of this metaphor, later (p155) he indicates the source: Hughes, T., (1979) "The electrification of America: the systems builders" in Technology and Culture, Vol 20, no 1, pp124-62.
Technologies and humans invariably operate in conjunction with each other, and since the result of this conjunction is not the equivalent of adding one to the other but enacts an alloyed fusion of human and non-human, we can only distinguish between the social and the technical to the extent that the 'alloy' contains elements of both. It becomes misleading, therefore, to argue that one or the other has a discrete impact (p153).

Although he, too, found it necessary to 'disassemble', he considered the reconstruction was critical: "after all, neither the human nor the non-human elements ... can operate in isolation" (p150). The 'disassembling' and the 'reconstruction' that have occurred in Part III have clearly evidenced that there are a myriad of influential elements in the communicative experience and it is inescapable that, when the medium of the telephone is used, the technology is an integral and significant shaping force. Hence I find the notion of a 'seamless web' a productive metaphor.

When I first began the study I had an interest in the telephone as a communicative device that seemed to have value for distance education. To research the use of the telephone in the context of tertiary teaching and learning, many teletutorials were audio-taped. As I listened to them, and sought to understand the teletutorial, increasingly there was involvement with the academic discourse, itself. Once this became a major concern, it became necessary to consider ways of analysing this discourse. Transcription seemed an inevitable pre-condition to the analysis. Not only did I have serious reservations about the practicalities involved, but to reconstitute the spoken language as written text seemed a betrayal of a fundamental tenet of this study: that spoken utterance is qualitatively different from written sentence. Hence I sought a method that would allow the spoken voice to be retained. Although I appreciate that the technologies of the tape-recorder and CD-ROM have mediated the experience, the decision to retain the spoken voice has satisfied a particular need. As discussed in Chapter 4, this study has brought forward a number of ethical considerations and increasingly those who inform policy and provide advice/approval in such matters will need to be cognisant of the implications of research that incorporates such spoken data. As with any new application of a technology, there are likely to be developments that will enable more sophisticated integration of spoken data than has been achieved here. I hope that those who access the CD-ROM will find the experience of value and that some may consider the benefits of incorporating this approach into their own study of spoken language.

* * * * *

Of particular concern has been to discern what teletutorials contribute to distance education. Garrison and Brockett (1991, p59) claimed audioteleconferencing was "not
only a unique technology but ... a unique instructional mode of co-facilitating education at a distance”. In contrast, Laurillard (1993, p164) wrote:

Teleconferencing is essentially a solution to a logistical problem, rather than a pedagogical problem, normally used to overcome the problem of communicating with students who are geographically distributed. It is not usually seen as a desirable medium in its own right ...

Laurillard, however, was prepared to concede that “if students are necessarily at a distance from their tutor, then these media provide an extremely important lifeline to interactive discussion which is otherwise not available to them” (p171). In contrast to Laurillard, I believe that audioteteleconferencing does more than solve “a logistical problem” for, as this study has shown, that very solution - not a minor issue, in itself - has definite pedagogical implications. Audioteteleconferencing has a unique role in allowing students at virtually any location to join with mentors and peers in spoken discussion and that interaction has the potential to contribute to the growth of knowledge, in the sense of understanding. The extent to which that potential is realised depends not only on the individuals who participate and their willingness and ability to engage in intellectual discussion, but on the medium, itself, and on how that medium is used.

In the 1970s, Lewis (1975, p69) claimed “dialogue must surely be a priority candidate for sustained investigation [for] we urgently need to know just how important dialogue is in (say) the educative affairs of man [sic]”. In the 1980s Sewart (1981, Note 8, p18) referred to being “very conscious of the fact that our knowledge of ‘dialogue’ is extremely limited” and that “to date no-one appears to have accepted [Lewis’] challenge”. In the 1990s, Laurillard (1993, p171) claimed that “one of the great untested assumptions of current educational practice is that students learn through discussion”. Perhaps one reason that Lewis’ challenge seems not to have been met is the difficulties inherent in ‘proving’ what spoken discourse contributes to teaching and learning. As discussed in Chapter 6, efforts to provide a causal connection between teletutorials and results - or even persistence - are compromised by the reality of the number of variables involved; furthermore, those who participate are atypical, in the first instance, and are likely to present as successful students. Similarly how does one ‘test’ that students learn through discussion? If one were to construct a pre-test and post-test, it is doubtful that one could demonstrate precisely what the process of discussion had contributed because, again, of the number of variables involved. As Franklin (1990, pp14-15) averred, “The interconnectedness of many of those processes, the fact that they are so complexly interrelated, defies our normal push-me-pull-you, cause-and-consequence metaphors".
As my response to Lewis' challenge I have noted what scholars have said about the perceived value of spoken interaction (see, especially Chapter 6: section 1) and then gave careful attention to what tutors and students had to say and write on this issue. As well, I have listened to the audioteleconferences and analysed their discourse.

From this study I have concluded that there are a number of 'myths' that have gained credibility because they represent what we would like tertiary teaching and learning to be. On the assumption that the print material has provided a forum for tutor/institutional statement, we tend to assume that tutors will use the teletutorial as a space for students to express their thoughts. The reality is more likely to be tutor monologue interspersed with some student dialogue. Indisputably it is the tutor discourse that is privileged in dominance and status. The tutor will be the focus of the discussion, with student/student exchanges, student agendas and student questioning atypical. We offer a teletutorial program to students and, where involvement is optional, find it difficult to understand why relatively few students take up the offer. We imagine that students will seek an educative experience that will be enriched by sharing ideas and the broader outlook that can result, yet confront a minimalist ethic, closed minds and prejudice. We envisage lively, informed 'intellectual' discussion where students and tutors are well-prepared, the issues are relevant and stimulating, the language precise and fluent. The reality is far more pedestrian. Students, some of whom are reticent, others inarticulate and struggling, opt for strategies of pretence and concealment. Frequently afraid of exposure and vulnerable, they are often concerned not with the theoretical and conceptual underpinnings of the discipline but with survival in the course and the next assignment. Tutors, who may face a teletutorial at the end of the normal day's work and who have to fit this additional demand into their domestic routines, tutors who have struggled with the course concepts in print and who dread facing the difficult student question, tutors who are placed in the position of defending a course of study that is seriously flawed or coping with basic administrative issues when they had planned to engage with challenging concepts, their experiences, too, are part of what has occurred in this research.

It would, however, be an overstatement of the case to conclude that such features are restricted to the audioteleconference. Other researchers (most especially, Grimshaw, 1989 and Tracy et al., 1993) have exposed similar problems with the face-to-face intellectual discourse they have analysed. Much academic discussion is pedestrian. To recall Kemmis' comment (in Modra, 1991, p88):

... we have these idealised images of what ... face-to-face teaching is all about and the students are very rarely in that sort of situation: and what seem to be
these subtle, complex, sophisticated human interactions with the wise tutor nodding sagely and allowing a student to struggle with an issue and stumble into a brilliant insight, are actually an extremely rare thing, and most of the time it's a bit of a power trip in which the tutor is flogging the students along, most of them pretty alienated and disconnected and so on, and most people don't experience the brilliant insight.

If this is the reality of face-to-face tertiary pedagogy, such factors as the restricted time frame of the teletutorial as well as the technical mediation of the communicative experience are likely to provide further impediments. When the technology, itself, fails and the tutorial can become a succession of pleas to be heard and of connections and reconnections, what is an already problematic pedagogical occasion is so redefined and reduced as to be, in the final analysis, very probably counter-productive to meaningful teaching and learning.

Although the data that have been considered in Part III of this dissertation can be drawn on to demonstrate that the intellectual discussion of the teletutorial is "not too cerebral" and that it is full of awkwardness and tensions, the data reveal also that there are positive attributes from such discussion and that growth can occur. While it is undeniable that students can take the written text and learn from it in the sense that they are able to make the information their own, and understand it, this remains an individual and essentially isolated experience. In contrast, through discussion, debate and exchange of ideas, through the process of articulating thoughts, isolation is replaced by collegiality and, although the understanding will inevitably remain an individual experience, in the final analysis, spoken pedagogy is dynamic, immediate and inclusive - with all the attendant risks and bonuses - in a way that written pedagogy cannot be. Arguably an important benefit of the teletutorial is that it does provide opportunities for students who are struggling with course concepts and/or with fluency to seek assistance and gain experience. Similarly, the tutors who were involved in this research indicated that they also had grown with the experience and learnt more about their teaching from it. There were demonstrable occasions when there was wisdom and insight and, although these were not as pervasive as one would possibly have expected or desired, their presence should not be discounted.

While, then, the reality of the audioteleconference may be that it is a flawed and compromised intellectual achievement as commonly practised and experienced, this should not blind us to the potential it can offer. Looking at education from an 'ideal' perspective, Garrison (1988, p124) wrote:
The point that needs to be made is that the educational transaction ideally is a collaborative process where dialogue and negotiation are possible and where the students may actively validate their knowledge.

Although it would be an unrealistic conceptualisation of distance education to claim that it is inevitably - or, even substantively - premised on "dialogue and negotiation", where there is a pedagogy that is premised on collaboration, the telephone can provide opportunities to support that intention. The second major case study, for instance, illustrated how the telephone discussions allowed students to be heard as individuals and then, with the force of more widely held group concerns, and a willingness on the part of the tutors to accommodate these perceived needs, there was modification and amendment. However, as the close study of selected excerpts indicated, even where there is a strong desire to use the teletutorial in ways that will accommodate negotiation and collegiality, the force and persistence of the normative paradigm of teacher dominance appears inescapable.

That the reality is far less attractive than the 'myth', does not abrogate the role of the teletutorial. What it does suggest is the need for greater training and experience for both students and tutors. It is not inconsequential that the group perceived to operate the most impressively (the MBA study group) had the greatest experience. Given the minimal opportunities to 'learn' the skills of oral presentation, and the expectation (by both tutors and students) that intellectual conversation will arise naturally without the practice and correction that attends the development of written skills, it is hardly surprising that a lot of what does occur is unimpressive.

* * * * *

As discussed in Chapter 2, there seems to be an assumption in much of the literature that it is preferable and satisfactory to consider audioteleconferencing as a discrete element. Even where it is referred to as 'enhancing', what it enhances, and how and to what extent the teletutorial uniquely impacts on the educative experience are not explored. To indicate what role oral discussion has in distance education, Chapter 5 set the audioteleconference alongside face-to-face tutorials and the tutorial in print.

Although the teletutorial focuses our attention on spoken discourse, it is a distortion to deny the impact of the predominant print technology. As discussed in Chapter 5 and then illustrated especially in Chapter 7, it is the printed material that both frames and constrains the teletutorial discussion. The issues to be discussed have, almost inevitably, first been handled in print and much of the discussion will be located within
the printed course material. For some tutors, their greater degree of comfort with the written word means that they feel compelled to prepare detailed written material that is then read to students as part of the teletutorial. Conversely, students then restructure what they are hearing as written information in the form of notes to assist recall. With its implied demand that students be at the same stage of their study to make the discussion effective, the teletutorial reinforces the normative lock-step, linear and sequential model, locating it within the Fordist model of uniform mass production, rather than within a pedagogy that privileges individuality with its attendant choices and freedoms.

The audioteleconference is a significant reconstruction of temporal and spatial elements. Chapter 5 illustrated and stressed the complex play of presence and absence that attends the decoupling of pedagogy and academy. Within the qualified context of the telephone, Chapter 5 engaged with a notion of 'telepedagogy' and showed how written and oral pedagogy had distinctive features. Of these, the most conspicuous concern sound and sight. While the telephone amplifies sound and hence spoken language, in its elimination of body language and physical context, important sources by which meaning is constructed are denied. While written text is fixed, oral discourse is fluid, ongoing and everchanging. For this reason there is general recognition of the importance of non-verbal features and contextual elements to support the communicative experience. Yet Love's (1989) writing is representative of much of the literature of audioteleconferencing when she claimed (p7) "the teleconference session then is the equivalent of the on-campus seminar". This research suggests that, although there may be commonality of intent, as we come closer to understanding what actually occurs in the teletutorial, to claim 'equivalency' is a distortion.

Conversation is a binary of speech and silence. One area where the lack of visual cues seems particularly problematic for the teletutorial participants is the handling of silence. Reflection is premised on quietness, on a space to think. Laurillard (1993, p171) did not include teleconferencing as a medium that supports reflection "as there is little enough evidence of it in practice, and the conferencing media themselves do nothing explicit to support it" (p171). In the specific instance of audioteleconferencing there seems an imperative to fill the time with speech. Spaces for reflection become awkward and there is little evidence, as yet, that tutors and students feel at ease in allowing extended periods for reflection. This is essentially, I conclude, because they are unable to see what is happening. Information that would have been gained by sight is replaced by doubt. However, I do not believe that reflection within an audioteleconference is an impossible - or even an unlikely - condition. Listening to the sessions and speaking
with participants have indicated that there is much unrevealed response that does suggest reflection. Moreover, the spoken interaction, itself, is the product of reflection. It is necessary also to remember that the teaching and learning are not bounded by, and restricted to, the temporal space of the teletutorial. The discourse could - and did - provoke reflection at other times and in other contexts. This appears, however, to be an area where greater sensitivity to the mediation of the technology is required.

The teletutorial is not suited to all distance education. As discussed in Chapter 6, most obviously this is where there is a need for the incorporation of visual elements. If the intention is solely to convey certain information, and/or the pedagogy is premised on transmission, there are clearly preferable options to the telephone. Conversely, the teletutorial is particularly suited to pedagogy that values talking about concepts and issues and where it is assumed that there will be some difference of opinion. In this regard the teletutorial is seen as far more than 'remediation', the putting aright of what has been inadequately covered in the print materials, or assisting the struggling student. The teletutorial values talk, in itself, as a pedagogical process leading to understanding. In some courses of study, as in the Nursing unit discussed here (see Chapter 7), the collaborative ethos of the faculty demanded that all students be given opportunities to share with others as they explored the experiential bases they drew on and their practice worlds and attempted to connect these with the discipline of Nursing. Units that are premised on the value of group process, for instance, demand that all students have the opportunity to engage in this activity. These are but two exemplars of tertiary pedagogy that is embedded in group interaction and where the teletutorial can bring to all students - irrespective of their circumstances and, most particularly, their location - similar (but undeniably not the same) opportunities as those students who can attend the campus.

Rekkodal's (1989, p31) research showed that all respondents to his survey at NKI, Norway, agreed completely with the statement that the telephone conversations made them feel their tutors were interested in their study success. He concluded: "In our view, the answer to this question alone would be a strong argument for offering teletutoring to distance students". As discussed in Chapter 6, audioteleconferencing does have a significant role to play in student support. This spoken 'bridge' that links the institution to the student through the voice of a specific tutor, helps to bring what, for many distance students, is the alien and exotic academic culture of the university closer to their domestic and private worlds. However, if this were the only perceived desirable outcome, while the technology of the telephone is a useful communicative device, it is doubtful that the audioteleconferencing, as interpreted here, would be justified as single tutor-student calls could fulfil that need.
The most significant difference between the one-to-one model of telephone contact that has formed the basis of much earlier research (including Rekkedal's) and the group contact that is the model researched here is the provision for peer interaction. Heselton (1985, pp82, 87) found that the "most popular" method of teletutorials for both students and tutors was one-to-one telephone calls between an individual student and an individual tutor. While not denying the value of such contact, and its perceived advantages such as relevance, this study suggests that opportunities for students to interact with peers should be provided as they have significant contributions to make to learning. The data reported in Chapters 6 and 7 especially showed that peers could open up new areas of awareness (for other students but also, on occasions, for the tutor) and the iterative process of discussion with those at a perceived similar level could assist students to shape and reshape viewpoints. Listening to peers (as compared with tutors) was likely to give students a stronger sense of where they were placed as they could compare standards. For many students, peers offered affirmation and support in a way that it was impossible for a mentor to provide. It seems regrettable then, as these data showed, that many students and tutors undervalue student contribution. The findings of this study that peer interaction was differently constituted and perceived in the absence of mentors, as well as the success of the MBA study group, suggest that tertiary educators should give particular attention to providing such possibilities for interaction for their distance students. It seems disappointing that there has been so little study of peer interaction and this is an aspect of tertiary pedagogy that I believe warrants considerable further attention.

The success of the MBA group provides a number of significant pointers. As shown in Chapter 6, factors such as experience and group homogeneity and the provision of a common purpose that was pedagogically embedded in the discipline, were critical determinants. While it may be uncomfortable for university tutors to note the success of a group that met without direct tutor intervention in the tutorial experience, it reinforced that, most particularly at tertiary level, the pedagogical balance should tip towards a stress on learning, rather than teaching. However, student ownership of the teletutorial experience is not something that should be taken as a given. What may well be entirely justified for experienced post-graduate students who have been supported by academic staff in many other ways (such as in the provision of course materials and the setting of assessment tasks that support group discussion and decision-making) would be far more difficult to justify with first-year undergraduates, for instance, and without considerable academic support.
Although it can justifiably be contended that the spoken academic discourse examined in this dissertation has some disappointing elements, this does not negate its role. Rather, it strengthens the argument that the pervasive attention given to written language in all levels of education needs to be re-assessed and a movement made to redress the perceived gross imbalance. This study reveals what spoken discourse - in the context of mediation by the technology of the telephone - can, at times, offer and should offer more consistently. With increased awareness, as well as consistent exposure to this experience, academic discourse should develop to come closer to fulfilling its potential in the academy.
APPENDICES
APPENDIX 1a: Constituent elements of the case studies - summary of use of research elements

<table>
<thead>
<tr>
<th>Instrument</th>
<th>M1</th>
<th>M2</th>
<th>CS1</th>
<th>CS2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Written data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questionnaires</td>
<td>35</td>
<td>172</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Journals</td>
<td>3</td>
<td>Nil</td>
<td>6</td>
<td>7+3 staff</td>
</tr>
<tr>
<td>Course materials</td>
<td>Not used</td>
<td>Not used</td>
<td>Used</td>
<td>Used</td>
</tr>
<tr>
<td>Faxes</td>
<td>Not used</td>
<td>Used</td>
<td>Not used</td>
<td>Not used</td>
</tr>
<tr>
<td>Chart</td>
<td>Used</td>
<td>Used</td>
<td>Used</td>
<td>Not used</td>
</tr>
<tr>
<td><strong>Spoken data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sessions</td>
<td>55</td>
<td>2</td>
<td>16</td>
<td>3+14 small group</td>
</tr>
<tr>
<td>Interviews</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. Tutors</td>
<td>6x1 time</td>
<td>28 in total</td>
<td>1x6 times</td>
<td>1x6 times 1x1 time</td>
</tr>
<tr>
<td>. Students</td>
<td>4</td>
<td>84 in total</td>
<td>26 in total</td>
<td>1x6 times 1x2 times</td>
</tr>
<tr>
<td>Relevant chapter(s)</td>
<td>5, 6</td>
<td>5, 6</td>
<td>5, 6, 7</td>
<td>6</td>
</tr>
</tbody>
</table>

[M1 = First minor case study; M2 = Second major case study; CS1 = First major case study, Deakin University, Nursing: NPR305; CS2 = Second major case study, Health Sciences.] (See Chapter 4 for further information.)

APPENDIX 1b: Summary of use of questionnaires

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER SENT</th>
<th>NUMBER RETURNED</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>49</td>
<td>35</td>
<td>First minor case study: Social Sciences and Sciences (Psychology)</td>
</tr>
<tr>
<td>1989</td>
<td>293</td>
<td>172</td>
<td>Second minor case study: Social Sciences and Commerce</td>
</tr>
<tr>
<td>1990</td>
<td>28</td>
<td>10</td>
<td>First major case study: Nursing</td>
</tr>
<tr>
<td>1991</td>
<td>36</td>
<td>20</td>
<td>Second major case study: Health Sciences</td>
</tr>
</tbody>
</table>
APPENDIX 1c: Sample questionnaire

INSTITUTE OF DISTANCE EDUCATION, DEAKIN UNIVERSITY

QUESTIONNAIRE FOR STUDENTS PARTICIPATING IN TELETUTORIALS
SEMESTER 1, 1989

Computer-generated addressee details

1.1 How many teletutorials IN TOTAL will you have been involved in at Deakin University by the end of this semester?

1.2 Have you ever been involved in communication by means of multiple telephone links for purposes other than teletutorials? *

* PLEASE CIRCLE YOUR DESIRED RESPONSE FOR THIS AND SIMILAR QUESTIONS

1.3 Are there any aspects of your personal circumstances that make teletutorials particularly valuable for you?

1.4 If "Yes" could you please indicate what these are:

.................................................................
.................................................................
.................................................................

1.5 Are there any aspects of your personal circumstances that cause problems when you participate in teletutorials?

1.6 If "Yes" could you please indicate what these are:

.................................................................
.................................................................
.................................................................
.................................................................
2.1 Where do you take your teletutorial calls?

   home
   business
   other: - please specify ........................................

2.2 How satisfactory are these arrangements for taking teletutorial calls?

   Very satisfactory
   Satisfactory
   Very Unsatisfactory

2.3 What person/family organisation (if any) do you undertake in preparation for a teletutorial call?

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

3.1 What factors influenced your decision to participate in teletutorials?

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

3.2 Has your attitude towards teletutorials changed in any way as you have had more experience with them?

   Yes
   No

3.3 If "Yes", could you please indicate how your attitude has changed and what you believe has caused this?

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
4.0 In the spaces provided below, please:

(a) state what you think should be the aim(s) of teletutorials;

(b) indicate the degree to which you think each of these aims has been met by placing a tick on the appropriate line.

<table>
<thead>
<tr>
<th>AIM</th>
<th>THE DEGREE TO WHICH THE AIM HAS BEEN MET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WELL</td>
</tr>
<tr>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td></td>
</tr>
</tbody>
</table>
5.0 Please use the table below to rate the FIRST teletutorial you were involved in during first semester 1989 under the headings of 'Excellent', 'Good', 'Adequate', 'Inadequate', 'Very Poor' and 'Not Applicable'.

<table>
<thead>
<tr>
<th>5.1 Course Code/Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2 Date of teletutorial</td>
<td></td>
</tr>
<tr>
<td>5.3 Time of teletutorial</td>
<td></td>
</tr>
<tr>
<td>5.3 Tutor</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.4 Value of information received prior to the teletutorial</th>
<th>Exc</th>
<th>Good</th>
<th>Adeq</th>
<th>Inad</th>
<th>V Poor</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5 Punctuality of the call</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.6 Audio quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.7 Quality of your preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.8 Quality of your participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.9 Quality of presentation by the tutor/lecturer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.10 Value in answering specific queries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.11 Value in clarifying course requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.12 Value in clarifying course concepts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.13 Value in stimulating an exchange of views/information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.14 Value in stimulating your study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.15 Value in reducing any sense of isolation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.16 Overall rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.17 Any other comments?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please use the table below to rate the LAST teletutorial you were involved in during first semester 1989 under the headings of 'Excellent', 'Good', 'Adequate', 'Inadequate', 'Very Poor' and 'Not Applicable'.

<table>
<thead>
<tr>
<th>Course Code/Name</th>
<th>Date of teletutorial</th>
<th>Time of teletutorial</th>
<th>Tutor</th>
<th>Exc</th>
<th>Good</th>
<th>Adeq</th>
<th>Inad</th>
<th>V Poor</th>
<th>N/A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Value of information received prior to the teletutorial</th>
<th>Exc</th>
<th>Good</th>
<th>Adeq</th>
<th>Inad</th>
<th>V Poor</th>
<th>N/A</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Punctuality of the call</th>
<th>Exc</th>
<th>Good</th>
<th>Adeq</th>
<th>Inad</th>
<th>V Poor</th>
<th>N/A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Audio quality</th>
<th>Exc</th>
<th>Good</th>
<th>Adeq</th>
<th>Inad</th>
<th>V Poor</th>
<th>N/A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Quality of your preparation</th>
<th>Exc</th>
<th>Good</th>
<th>Adeq</th>
<th>Inad</th>
<th>V Poor</th>
<th>N/A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Quality of your participation</th>
<th>Exc</th>
<th>Good</th>
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<th>Inad</th>
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7.1 Has your experience with teletutorials this semester encouraged you to take part in teletutorials in the future?  
Yes  
No  
Uncertain

7.2 Would you like to see teletutorials provided in more subjects than happens at present?  
Yes  
No  
Uncertain

7.3 How frequently do you receive teletutorials?  
........................................

7.4 Would you like to see more frequent teletutorials?  
Yes  
No  
Uncertain

8.1 To sum up, what do you think are the main ADVANTAGES that teletutorials have for teaching/learning?

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8.2 What do you think are the main DISADVANTAGES that teletutorials have for teaching/learning?

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9.1 Would you be prepared to participate in a follow-up telephone interview:  
Yes  
No

If "Yes", please give: your contact telephone number .............................
preferred contact time .............................

THANK YOU VERY MUCH FOR YOUR ASSISTANCE

10.1 If you would like to make any further comments, please use the next page which has been left blank.

[NOTE: To assist collation, coloured stock was used.]
APPENDIX 1d: Aggregated quantitative data

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* Refer to Appendix Ic.

[M1 = First minor case study; M2 = Second major case study; CS1 = First major case study, Deakin University, Nursing: NPR305; CS2 = Second major case study: Health Sciences.] (See Chapter 4 for further information.)

[NA/NR = Not Applicable/No response.]
APPENDIX IIa

1. Tutor [Bev] What about the next one, Nutsel, therapeutic Nursing, when she talks about ah Nursing dealing with intimacy, reciprocity and partnership. Ah, what do you think about that? Do you think that Nursing has to do with intimacy, reciprocity and partnership? Any one of those. What do you think? (1.75 sec pause) Let's hear from you, Julie.

11. Julie Oh, (slight laugh) yes, it's to do with partnership. After writing that first essay on Pearson's um book about partnership, I think so. I'm I'm not a person that likes to get really that close to patients though. So I don't like the word 'intimacy' with patients. (3.5 sec pause)

19. Tutor [Bev] Ah, what does the word 'intimacy' um conjure up in your head?

21. Julie Ah (pause) it's just that it's not a word I like to use with patients. 'Partnership's' fine. But, um, yeah, I feel uncomfortable when patients ask me questions about myself. I don't like that.

27. Tutor [Bev] That's fine. What do the other people think about this particular thing, 'intimacy'? I mean, it's a pretty heavy word, isn't it? (3.5 sec pause)

32. Beverley Bev, this is Beverley here. Perhaps it has to do how one feels about oneself; how, um, how how confident one feels or at home you are with yourself and the more at home you are with yourself perhaps the more you can share with other people. Um, I mean, I don't divulge every personal detail about myself but I do think I can give something of myself without being 'intimate' as in 'intimate/intimate'. Does that make sense?

(3.5 sec pause)

36. Sue Yes, it's Sue here. It doesn't it doesn't worry me. I think intimacy is something we could use a lot more in
Nursing. I think the problem is that
we've never been en-cour-aged; we've
almost been told not to get too close,
not to receive like a small gift or a
to-ken from a patient, if you - you know,
and some patients you really do hit it
off with, and I think that's great, and
also I feel as far as your own per-sonal
being goes you -. In the past, I think,
sort of in your training y- you're not
en-cour-aged to really talk about
yourself. In fact, it's sort of that's
not what you're there for. You're there
to do the job and get the charts right
and everything, and it's never been
en-cour-aged. But I think it's great.
And I received a gift in the mail last
week for the for my new baby and I was
really touched. And I thought about it
and that person I'd nursed and it sort
of, in thinking about the course, I
thought, well it is nice, you know.
I felt that I'd been appreciated.

Jan
Um, it's Jan here. I'll agree with that, um
too, Sue. Um, I've never had a problem with
it, um sharing with a patient. In fact I really
love to hear - to know what they're
like; what they do outside, you know,
and um what their family's situations are
and getting to talk to them and other things.
Um, I was the same. In our training, we were
not encouraged to do anything like that. In
fact, talking to patients and patients' families
was sort of a waste of time when we could
have have been doing something other;
something else that was more beneficial.
Um, I've always seen this as a problem.
I probably talk too much to them in some
ways, it's just the way I was. But I've
never had a real problem with it. I can
remember one time when I looked after a
patient and when he went home he left a
note saying how much he really
appreciated my care. And I was just so
overwhelmed by it. I thought it was the
greatest thing. It made me feel really
really good about what I'd done, even
though what I'd done hadn't been
particularly spectacular. But I felt so
good about it. I was really, um,
enthused to go to work and do it again.
Yes.

Student
Tutor [Bev] I think - this is Bev - I think Julie
was making a point that er it's
sometimes difficult to divulge to
patients things about oneself. I mean,
I think as nurses we're really good at
er asking patients questions. We ask
them everything. And er as far as intimacy
goes we poke tubes everywhere
conceivably. I mean, there's no part of
a patient's anatomy we haven't got
licence to invade. Ah, and it seems to
me there's a bit of a one way street set
up at times, don't you reckon? Like um
'intimacy's' a two way thing and in
Nursing, the way it has been, the way you
see a lot of it, it it's the nurse's
access to the patient. How much er access
should the patient have to the nurse is
the er question here. What do you
reckon about that?
Beverley Ah, it's Beverley speaking here. I
found when I was doing District Nursing
this allowed me much more room for
intimacy. Um, I sometimes wonder whether
I was sublimely directed into that type of
Nursing where I could actually be myself
with patients. And I found um working
in these type of areas much more
satisfying because the time was there
whereas in a hospital based situation,
at least during my training, um, time
seemed to be a big constraint and if you
were seen sitting down talking to a
patient um it wasn't the acceptable thing
to do at that time. You know, you should
have been doing some kind some type of task,
rather than talking. So I felt that I've um
directed myself into areas where I can
communicate with patients more.

Julie (3 sec pause)
It's Julie here. Um, yeah, I think what
Bev's been saying about it's our training
that's been ground into us so much that
you're not to sit down except for
feeding the patient, and not to get
close to patients and not accept gifts
and things like that so that um your
training just sticks by you and it's
hard to change. But, thinking about
what the others have said, too, I find
it a lot easier to get closer to
midwifery patients which is my preferred
field. Perhaps I've got more in common
with the patients. I don't know.
(3.5 sec pause)
APPENDIX IIIb

1 Tutor [Bev] Isn't this good fun! It's really um
2 experiential stuff for us all. Look,
3 I'm really enjoying the discussion.
4 It's wonderful. Helen should be back
5 pretty soon, um, so I don't really want
6 to take it off um the subject until she
7 comes back. So we're talking about
8 dominant ideology and how it's
9 maintained in hospital settings. But I
10 want you to start thinking about who
11 else is involved in this? I mean, are
12 we only talking about doctors and nurses
13 when we talk about 'status quo' and
14 'dominant ideology'? Are there other
15 participants in that and how are they
16 affected? Start thinking about that.
17 If anybody wants to, um, make a comment,
18 go ahead and comment.
19 Jenny Yes, I - it is Jenny here. I think the
20 administrators are also involved in
21 Nursing. I think they are - I think as
22 Nursing we have got a very much of a
23 hierarchical system still going. It is
24 perhaps not quite as bad as people are
25 becoming more educated but still the
26 hierarchical system is still going on in
27 small hospitals.
28 Tutor [Bev] And in which directions does do the
29 administrators exert their power?
30 Jenny It's all in my journal. (laughs) I've
31 written a lot of it in, you know, in my
32 journal. But they do, they they exert their
33 power by only by their position. That
34 is the only reason. I mean, their
35 position - We have to respect their
36 position and it doesn't mean to say that
37 you respect the person you know because I mean
38 they haven't shown me anything that that
39 earns my respect. But, you know, we
40 have to respect their position and I think
41 this is another thing that we are again um
42 in this you know hierarchical position. Do
43 you agree with that, Bev?
44 Tutor [Bev] I was just wondering what you think,
Lise? I personally, do, but I'm just wondering, what about Lise?

Lisa

Yes, I agree with Jenny, entirely. I don't think the administrators help at all sometimes. (Muffled student reaction) In the little hospital where I work there's only one administrator and that's the director of Nursing. And, um, we don't have any other administration - Nursing administration - staff at all, and um she's very much the handmaiden role to the doctors. Which makes it very difficult for the Nursing staff who um want to exert um some influence over the doctors when you don't have the backing of the DI.

Jenny

We have the same problem here.

Lisa

Yes.

Jenny

How, how is she towards the Nursing staff?

Lisa

Ah, it varies. Sometimes she's really good and other times she's -

Jenny

Is she using her position of power?

Lisa

Yes, I'd say so. Yes.

Jenny

Well, I'm finding this all the time. In a few of the hospitals I've worked in, especially in the smaller ones. And I think we are very much dealing with a hierarchical structure and I think unless nurses become liberated by study and professionally educated I think um well, I can't see a great little future for us in the near in the near in the near - the very close - future.

Lisa

Yeah. The thing is, just getting people interested, isn't it, who want to study.

Jenny

Well, I've been I've been telling lots of people about it and I'm getting a lot of people here interested. So that might be something.

Lisa

Yeah, yeah I'm the same. But initially, you know, I haven't had any support from the staff that I work with.

Jenny

Yeah, I'm finding it here, too. We are, we are supposed to respect the person because they hold the position and they
They can never put themselves into another person's shoes and show empathy. It's all, you know, um it's all their way, you know. And it's just it's just a power struggle. I've realised they feel very threatened by people educating themselves, or the more people coming into the workforce with degrees. But I think um you know that the structure is still here and I think it hasn't gone yet. Can I come in here?

Yes.

This is Jan. Um, I, I find this conversation fascinating, I must say, because I'm an administrator. Um, I am an assistant director of Nursing with a very strong clinical component in my work as are, um, most of the other assistant directors of Nursing with whom with whom I work. We're - My hospital's a very large hospital, so it's slightly different to small hospitals where there's only one director of Nursing. Um, I and, our, all the, um, administrative staff, as as you people, as we we know that they are, have um, are exp- encouraged and, in fact, it is written into our job descriptions that we must um upgrade our qualifications and continue, um, con- er education of ourselves from the very beginning. Even from the charge nurses, right up. From the clinical nurse, clinical nurse, clinical nurse consultants, right up to the director of Nursing. Um, so, I I have no doubt that there are people um who are not in the administrative role that have the same, um, thoughts as you people do. Um, and, but we try very hard to overcome this this these um thoughts bec- these these er thoughts and actions of of that because - Oh, goodness! I've become very tongue- tied here! Um.

We are also nurses and we believe that this hierarchical structure should be
broken down and, in fact, has been
broken down a lot in South Australia by
the careers structure, um, which is
slightly different to some of the other
states. And, er, that's why all of us
are undertaking further education.
Tutor [Bev] Can I um just check if Helen's with us?
Helen, are you there?
Helen Yes, I am. I'm back and I can hear a
lot er clearer now. The line seems to
be better. I don't know if you can hear
me.
Tutor [Bev] Oh, it's lovely. It's much better. I
was so worried about you because you
were sort of fading in and out and I
felt that you were missing things. What
we've been doing while you've been away,
Helen, is is er going on with this talk
of dom- dominant ideology and saying
what other relationships are involved.
And it came out, yes, that Nursing
administrators are involved in that,
too, and we've been having some
discussion, I guess you've heard. But
I'm actually wondering, where is the
patient in all this and how will the
patient benefit from nurses being more
educated? Would you like to start off,
Helen?
Helen Fine, um ...
APPENDIX IIc
[Part of Teletutorial A]

1 Tutor [Bev] OK, we can talk about reflective processes and journalling all in one as I think its an ongoing problem for students when they first set out.

2 OK, so we have four things here: 'praxis'
3 - oh, five, actually - 'praxis',
4 'paradigms', 'posit'- uh, you know, how the 'positivistic paradigm' maintains the status quo and what ramifications that has for Nursing, 'dominant ideology' um and 'reflective processes'. So, we might just start talking about that. Now, what I'll do, rather than me tell you I'll get you to tell one another and if you need clarification I'll come in at that point. Because I really think that we learn from one another. I don't pretend to be a guru here. I'm learning with you and all I'll do is facilitate your thought processes. So, the notion of 'praxis' then, er has to do with reflection. And I'm wondering - Helen raised the question, and I'm wondering if um Jenny, Lisa or Jan have anything they can add. Now starting with - in the order of Jenny, Lisa, Jan. If you have nothing to say, just say "Pass" or just give any comment at all that might help er Helen and the rest of us um get an idea of what 'praxis' is.

31 Jenny I'll have to pass on that.

32 Lisa And I can't - This is Lisa. I can't find mine, where I've written it. So, I'm trying to find it, so I could Pass at the moment, too. (Laughter)

36 Jan This is Jan and I've I've a bit to say but I'm trying to trying to find what I've written about 'praxis' and, um, at the moment my mind's a total blank. Sorry.

41 Tutor [Bev] OK, Helen. Tell us what page it's on.

42 Helen Ah, I'm just trying to find it myself.

I thought I'd be highly organised here
this morning. Um, no, it's in chapter five.

Lisa  It's on page eighty-three. This is Lisa.

I've just found it.

Helen  Yes, eighty-three, that's right. Um.

BT   What page is at the top of the um book?

Lisa   Eighty-three.

(7.75 sec pause)

Tutor [Bev]  OK, then. Um, if you've got the page
there on 83 you'll find some pretty dense words there and, er, these words belong to the critical Social Science paradigm. Er, um that's going to lead into what we're going to talk about next. But we can talk about it all at once. Um, now, the words are coined in this way. They - this this sort of language generated was generated from German philosophers so words like 'conscientisation' and 'praxis', um 'transformative action' and so on actually come from German um translations. So it will explain the denseness of the language. Now, if you have a look at 'praxis', itself. Ah, just take a little time now to read it and try to pick up the key words there.

I can give you the answer but I want to - I don't want to. I want you to find it now. So you have a look at the at the definitions there and try and work out the main themes and, um, starting with Helen, again, see if you can make some sense of it.

Helen  (2.75 sec pause) I'll have to have a think on it. I'll have to pass for the minute. I'll have to sort of sit down and really think.

(16.5 sec pause)

Tutor [Bev]  Anyone else like to, um, lead in?

Lisa  It's Lisa here. I would say that 'action' and 'reflection' are important words in it.

Tutor [Bev]  Yes, reflection is a very important element. And there's something that
happens because of reflection. Can you 
see what that is?

(2.5 sec pause) Well, the liberation.
Liberation of the education bridging the 
gap between education and practice.

Tutor [Bev] That's right. So in between reflection 
and liberation change happens. So, 
what you what you're basically saying 
about 'praxis' is, that it's the reflection 
of people on their worlds in order to 
make - to bring about - change. Like, 
you can sit and look at your navel and 
make no difference to your umbilicus.

But with 'praxis' you look at your social 
world and you think, "What's happening 
here? How could it be otherwise?" and 
from that awareness comes change. So 
that's what 'praxis' is and you 
basically knew it.

Helen Yes, simple.

Tutor [Bev] I think the thing is when you read the 
Study Guide, though, um it's all so 
concise and and condensed that um you 
almost expect a trick somewhere. Um, 
trust us. What we've got here is meant 
to be as simple as it can be, although 
words like 'praxis' and 'conscientisation' aren't easy. I, I understand that.

Does anybody else want further 
clarification on 'praxis'?

(4.5 sec pause) I think we're up to 

Jenny

Well, I'm sorry, Bev. I haven't got my 
Study Guide with me. I didn't think I 
needed it. I was thinking this morning, 
"Should I take it?", and I thought, "No, I 
don't think I'll need it". And it looks 
as though - I'm kicking myself now I 
didn't take it.

Tutor [Bev] Don't worry about it, Jen. I was just 
wondering are you clear on 'praxis' now?

What it might mean?

Jenny I, I think I know - I had a feeling it 
was something to do with with practice 
(little chuckle) even though it might 
have been a different word. But, I, as
you said, it's from one point to
another, isn't it? It's the
transitional form from one point to
another. As you said, you're looking at
something and what happens in between
that time.

Tutor [Bev] That's right. So, it's only when people
take the time to reflect on their worlds
in an organised way that they can bring
about change. Now, I'm wondering, um,
Lise, have you any idea how 'praxis' might
have any relevance at all to Nursing?

Lisa Well, I think if we don't engage in
'praxis' we won't bring about any change
because change has to come from ourself
so we've got to start thinking about own
practices and seeing what we're doing and
why we're doing them to effectuate this
change.

Tutor [Bev] I'd agree with that. So, um would anybody
like to discuss this further or will we
move on to the next thing? (3 sec
pause) I take the silence to mean "Move
on". Um, I'm conscious that we want
to try and get through as much as we can
'tcause I gue-I guess you've got some domestic
issues you want to raise with me, too.
Things like assignments and so on.
(Small laugh).
APPENDIX IIId
[Part of Teletutorial B]

1  Tutor [Bev]  Now we last talked um around about
2  chapter six and I was thinking that any
3  of the information from six up until
4  nine - you can include nine in that if
5  you want to - um, would be good to talk
6  on tonight and er those areas have to do
7  with er encountering phenomena in
8  Nursing, therapeutic Nursing er and things
9  related to the case study. So, um, you
10  might like to spend some time talking to
11  one another about what you've been
12  reading. Anything interesting, anything
13  you'd like to raise tonight for
14  discussion, so I'll just sit back and
15  let you talk to one another and then
16  when you're finished I'll pull out some
17  ideas and um assess you as I can. OK.
18  (10 sec pause)
19  Jill  It's Jill here. I thought I'd better
20  start. Um - My question that I
21  want to raise that I find hard to
22  interpret work out when I'm looking at
23  my own journal
24  Student: overlap - bit off the track here.
25  Jill?  Can you hear me?
26  Student  Yeah. Easily.
27  Jill  Um, with the journaHng. In the first
28  place you've got to look at it and see
29  where your - what do you call it? -
30  praxis links in with what you'd recorded
31  in theory and pull out pieces like that.
32  But when I came to the readings bit about
33  knowledge embedded in practice, and the
34  knowledge that we have as nurses, I
35  found that a really hard concept to look
36  at my work and work out what it was that
37  I can do that was um specialist. Um, I guess
38  what you do, you sort of um expect yourself
39  to be asked to do something to be asked to
40  do something without really thinking
41  about it. And I couldn't sort of work
42  out what was special about what I did.
43  Does anyone else find that they're
having a problem with that concept
relating to their own work, or -?
It's Rhylla, here. I find that it's
very, very easy to describe what you're
actually doing and I've had difficulty,
at times, isolating the phenomenon that
we're looking at - you know, that
interaction between me and somebody else
while I'm doing. Er, and I sat down and
had a great big think about it actually
while I was doing the journaling
assignment because, um, I, you know,
was - did my training way back, in the way back
in the 60s. And we had this badgered in
me this thing about not talking -
something between you and the patient.
You know, that confidentiality thing and
I had deep problems overcoming that.
You know, even (unclear) because I think
we were taught to do and to help but to
lock it away and to get on with it. You
know what I mean? And so I think that's
been my big personal stumbling block.
It's also been difficult when ...
(impossible to hear clearly: 17.5 secs)
It's Cathy here. Kerrie, I think I sort
of feel the same way as you do in that
um critical reflection and the concept
for nurses is such a new thing um that -
well most of us from the sound of it
in our training, even though I'm a
youngerster compared to - um. Still then in
my hospital training in Brisbane it was
very much um a good day was when the
charge nurse didn't speak to you because
that meant you didn't do anything wrong!
(Guffaw: Bev) And when I - my first few
entries in writing a journal, I think I
found that um it was very good about
being negative about myself and what I
was doing wrong and where I slipped up,
but found it very difficult to see
something that I thought was just a a
simple part of my my work day had made a
difference and was a positive thing that
I had to offer the patients in my care.
Um and I think that's something that
that um most nurses find difficult to
doi to look at the positives and to see
them as something more than just, you
know, um a simple pat on the shoulder or
or listening to someone for ten minutes
which can make quite a difference to a
parent or a child that you're looking
after but that you don't see as anything
special.

Kerrie

Yes I found that when I started -

[Impossible to hear: sense of student
speaking; 20.25 secs]

Tutor [Bev]

I've just lost contact here. This is
Bev speaking. I'm just wondering if
there's anything happening out there or
have we lost you?

Student (Laughter) We're all deep in thought!

Tutor [Bev]

Did we fade out then did we?

Catherine

No, I think we just faded out.

Student

Yeah, we dried up.

Tutor [Bev]

Oh, I see. The old cells brain cells
have sort of dehydrated a bit. Um,
right, well this is good. It seems er
that even though um the journalling
exercise was a bit of a mystical trip for a
start that people are starting to see the
sense in it. I was thinking about the
first comment - How do you actually get
to that knowledge embedded in practice?
And my answer is, with a fair amount of
difficulty. Um, because often as as
clinicians we don't know what we know.
For instance, er when you get to chapters
nine and ten and it talks about
excellence and expertise, it's the
nature of an expert to do things in
almost thoughtless ways. They seem to
do it so easily they can't even tell you
how they do things so well. So, can I
tell you if you're having trouble
reflecting on your practice it's
probably because you're an expert and
you've never really taken the time to
work out step by step just what it is
you do. What do you reckon about that?
Kerrie: Hm, it's Kerrie here. I I can see what you mean in theory but then when I sort of ook at my own practice I still sort of find it hard to accept though that's been special. It's something I expect myself to be able to do. I think because I've worked in one area for such a long time I just see myself doing what I would have done but more quickly than -. I don't know. I just find it hard to to think of it as being particular knowledge, special knowledge. Um.

Tutor [Bev]: Has anybody got an example um of their own practice or the practice of another nurse that might help Kerrie in the sort of knowledge we're talking about? I've got one but it would be nice if somebody who's been in recent clinical practice could er just talk to this for a while.

[9.5 sec pause]

Catherine: I guess, OK. It's Cathy here. I'll be my cynical self. (Laughs/shared laughter) It's probably not a very positive thing but um just thinking about the tie between experience and expertise and and I don't believe that years in a certain area makes you an expert. I think it's a way of thinking and a way of being rather than um the the amount of time you put in round the place. Um, and I find in my unit my latest battle at the moment is (unclear) spinal unit and the spinal operation which is always done on a Tuesday afternoon. And um, generally the morphine infusion comes out on the Saturday and the dressing gets taken down. Um, there's a nurse who's worked there for probably ten years, and, despite whether the child is still in pain or not, on a Saturday morning will take out the morphine infusion um and call that child a wimp. And I'm having this great battle at the moment trying to get her to understand that um pain is
is a very subjective thing and that a child after extensive surgery is still quite legitimately able to be in pain five days after that surgery. And that, to me, is something we experience; as far as time goes, it doesn't necessarily make you a clinical expert. Does it? Yeah, Cathy, this is Bev here. I want to reinforce what you've said there. I think that's a good example. Now the knowledge that you use in your practice is a sum total of many, many things and for that nurse who routinely takes out the needle because it should be taken out today, it doesn't really reflect knowledge embedded in her practice. She is related to habitual routine and not really considering anything else than today's the day to take it out. But the knowledge embedded in expert clinical practice has to do with being able to consider all the variables and say, "Right. This action's right. This action's appropriate. Another may not be". But you see the thing with nurses is that they do that so easily, they don't actually see that that's special. Um, and as somebody said before, they just do their work every day. One of the students - I've just come away from a tute on campus just now. One of the students said, "Yes, there is - are a lot of examples of expertise in Nursing, but it's usually the people watching the nurses who can see it".

(4.5 sec pause)

Any other comments related to what you're reading? I mean, you might like to keep on the journaling tack or um anything at all you want to share with the group. Please feel free to talk to one another.

(15.5 sec pause)

Rhylla Bev, it's me, Rhylla here. I think I was just testing. (Some laughter) What I don't quite understand is um - to talk
about one area that I'm having a bit of difficulty (unclear) - you know, trying to get these two sorted out in my mind when we're looking at um what we're doing to break it down. Because we're looking towards holistic care, um, I've also got this stuff about how much do I reduce it down without um actually cutting the patient up too much or cutting the incident up too much, if you know what I mean? I find that a little bit difficult. I'd be interested in some comment there. I don't know whether I'm imagining that - or maybe I'm just reading too much into some of the notes that talk about holistic care and interaction. And the other thing is that. Um, I find that I'm very (pause) um very very slow at times in wanting to say, "Yes, I did that well. You know, and maybe somebody else didn't do it as well," (Laughs) if you know what I mean? I think I'm clearly not wanting to be too judgmental the whole time, so I suppose I've got to make up my mind what's judgmental and what's objective. And that's a bit of a difficulty for me. (7.5 sec pause)

Anne That's part of the difficulty. This is Anne speaking, by the way. I think that's part of the difficulty with this um this totally new way of looking at Nursing from what we've - or what I've been used to, which is basically based on the the scientific or medical model, I suppose they'd call it. And um we just did set tasks routinely, and without much thought by doctors and things like that and therefore we often had to sit back objectively and see things. But I think that some of this phenomenological stuff is actually asking us not necessarily to look at it so subjectively, maybe sort of be, so objectively. Maybe it should be a little bit more subjective and see
things in, you know, in actually what it
means more to the person, not
necessarily to the to the disease and
whether, you know, the outcome of the
disease in the end - you know, they got
cured, or whatever - but, um, you know,
that you made a difference to that
person by just saying, you know, "You're
doing a good job" or, you know, "It's
great to see you up today". Just if their
spirits have been have been raised. I mean,
in some ways objectively you can't look
at that and say "I did a good job"
because it's it's more of a subjective
sort of feel about it. It's more, it's
more you and him and the patient sort of
having - the more human thing. You
know. And we value the scientific -
"Yes, I can sit back and say, 'a and b
and c did this - or that worked out that
way''", but you can't always do that. In
this sort of way of looking at
Nursing which for me is so new and um
I find it really refreshing to be able
to say that. That we, as nurses, do -
we do have such an important part to
play in the outcome - usually in the
outcome of illness but not always the
outcome of illness. But just that
person's experience of the the of your
work in the hospital setting is a little bit
better than what it would have been if
you'd have of stayed in that - I suppose,
you know, it's always been, that
scientific bio-medical sort of thing.

This is Jill. Um, on (unclear) I've worked in
mainly labour wards as a clinician and found
that there you do sort of boost the patient along.
Um, I find that the thing about it that if you
give of yourself um and you become part
of a team. This is great because it's
just been sort of a justification of what
I've felt for a long time (Mm) and
um I was in midwifery and I went into
administration and I've had a few nurses
who actually used to come and say they
were getting into strife in the wards
with people who said they were
unprofessional. And they were
unprofessional because they were
actually giving of themselves to the
patient and, again, I sort of tried to be a
support which is often difficult when
you've got senior nurses on board who are
cutting them down. So I think this is
just one more - the sooner it gets out and
into the whole wide world the better.

(5.5. sec pause)

Tutor [Bev] This is Bev. Um, I was wondering if we
could um move this conversation to um
relate it to chapter eight. Er, just to
see how you're making sense of your
reading and whether or not the theory
parts all seem useful to you. I'm
going the impression that the practice
of journalling is becoming a useful
thing so I'm wondering what sense you're
making of the of the reading itself. Er,
chapter eight begins on page a hundred
and seventeen if you've got your Style
Guide, your Study Guide here, and it
talks about Nursing as a therapeutic
act. Now this is rather a bold claim:
that Nursing is not only a caring thing
but it also has healing potential. I'm
wondering what you think about this? Do
you think we're going over the top here
or do you see that your Nursing is both
carative and curative? I'll put that to
you.
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